


RESEARCH ARTICLE/ÉTUDE ORIGINALE

The “Tipping Point” of a Strategic Vote: When Does an Individual Vote Strategically?

Dylan S. J. Anderson 

Department of Political Economy, King’s College London, Bush House, North East Wing, 30 Aldwych, London, WC2B 4BG, UK

E-mail: dylansjanderson@gmail.com

Abstract

Although the existence of strategic voting in the United Kingdom and Canada has been well documented, quantifying when a voter will cast a strategic ballot has yet to be done. This article draws on electoral data from five UK and Canadian elections in order to address this gap by identifying a precise “tipping point” for when a non-viable party supporter’s probability of voting strategically crosses a 50 per cent threshold. I find the best tipping point measure occurs when a voter rates their favourite viable party greater than 59 out of 100 in the UK and greater than 73 out of 100 in Canada. Both countries also have clear tipping points for the likeability of an individual’s highest preferred party and perceptions of that party’s distance from contention. Overall, by calculating these tipping points, researchers can better gauge voter behaviour and how, or when, certain factors contribute to strategic voting.

Résumé

Si l’existence du vote stratégique au Royaume-Uni et au Canada est bien documentée, il reste à quantifier le moment où un électeur va voter de manière stratégique. Cet article s’appuie sur des données électorales provenant de cinq élections britanniques et canadiennes afin de combler cette lacune en identifiant un « point de bascule » précis à partir duquel la probabilité qu’un partisan d’un parti non viable vote stratégiquement franchit un seuil de 50 %. Nous constatons que la meilleure mesure du point de bascule se produit lorsque le parti considéré viable obtient la préférence à plus de 59 sur 100 au Royaume-Uni et à plus de 73 au Canada. Les deux pays présentent également des points de bascule clairs en ce qui concerne la popularité du parti préféré le plus élevé d’un individu et la perception de la distance de ce parti par rapport à la contestation. Globalement, en calculant ces points de bascule, les chercheurs peuvent mieux évaluer le comportement des électeurs et déterminer comment, ou quand, certains facteurs contribuent au vote stratégique.

Keywords: strategic voting; voter behaviour; elections; electoral systems; tactical voting

Mots-clés : Vote stratégique; comportement des électeurs; élections; systèmes électoraux; scrutin majoritaire uninominal à un tour

At the most basic level, a voter in any democratic system should cast a ballot for their most preferred party or candidate. However, in reality, a voter's favoured party, while influential, might not receive a guaranteed vote, since rules of certain electoral systems create incentives to vote differently than one's first choice. Instead, a voter might decide to vote strategically (also referred to as a tactical vote),¹ which is when someone votes for a less favoured party or candidate because the favoured choice has no likely chance of winning (Blais and Turgeon, 2004; Bol and Verthé, 2019).

This type of behaviour is quite common in first-past-the-post (FPTP) electoral systems. FPTP is a single-member plurality system that requires individuals to vote for one candidate (usually belonging to a political party) in their constituency, who in turn would win with a simple majority of votes. The structure of this electoral system entices individuals to make their votes count by casting a ballot for parties who are more likely to win in their constituency, a reality that factors significantly into many aspects of campaigning, including political party strategies, news coverage and even the usage of websites that encourage strategic voting (for example, tacticalvote.co.uk in the United Kingdom and strategicvoting.ca in Canada). Extensive research on the topic has shown that strategic voting can influence electoral outcomes (Heemin and Fording, 2001) and that certain groups—older and richer voters—tend to vote more strategically, thereby creating inequalities in political representation (Eggers and Vivyan, 2020). This article builds on research identifying why individuals switch their vote (Niemi et al., 1992; Blais et al., 2001, 2005), which has been crucial to the study of elections and voter behaviour.

With a focus on the FPTP system, I define strategic voters in this article as individuals who support a party that is non-viable (outside of the top two contending parties²) and vote for their favourite of the perceived two viable parties, rather than their highest preferred party (Daoust and Bol, 2018). Using this definition, I build on the current strategic voting literature by measuring variables that define why individuals vote strategically (for example: chances of winning, party and leader preferences) and using this information to empirically estimate the “tipping point” for when a supporter of a non-viable party might switch a vote from a preferred party (a sincere vote) to a secondary option (a strategic vote). By calculating the point when a voter is more likely to cast a strategic than a sincere vote, I hope to provide an empirical foundation, using a set of widely studied independent variables, to predict whether a non-viable party supporter will vote strategically. In the academic domain, there are quite a few papers that calculate the level of strategic voting (Blais and Nadeau, 1996; Alvarez and Nagler, 2000; Alvarez et al., 2006; Merolla and Stephenson, 2007; Blais et al., 2009) and explain why individuals vote strategically (Niemi et al., 1992; Daoust and Bol, 2018; Abramson et al., 2018). Yet precisely defining the point when a voter will switch a vote from sincere to strategic based on those variables has not been sufficiently investigated or identified.

The creation of a more applicable tipping point for supporters of non-viable political parties requires a sample size that is larger than one election. For this reason, I use six election datasets to analyze five recent elections in two FPTP countries: the United Kingdom and Canada.³ By running a logistic regression on all non-viable party supporters from both countries, I calculate the probability that a voter will cast a strategic vote based on that voter's survey responses. Using these results, I create a value for each predetermined variable where an individual's chances of voting strategically cross the tipping point threshold of 50 per cent.

Why Do People Vote Strategically?

The study of strategic voting has multiple roots in academic literature. One of the most influential theorists, Maurice Duverger (1954), approached the subject by evaluating the interaction of voters' psychological motivations, the viability of multiple parties and the country's electoral system. He is famous for what has been termed Duverger's Law, a rule that suggests that in a plurality system, voters will be psychologically averse to "wasting" their vote on a preferred party or candidate if that party has no chance of winning the voter's constituency (Duverger, 1954). Plurality systems (which includes FPTP systems) favour the sole existence of two main parties, thereby leaving supporters of less viable parties psychologically inclined to cast a ballot for their favourite of the two most viable parties, instead of their preferred choice (Duverger, 1954). Given the multiparty systems in the UK and Canada, these choice countries do not perfectly subscribe to Duverger's two-party system; nonetheless, the logic of a non-viable party supporter deciding to not waste a vote underpins our definition of strategic voting.

The causal variables that help explain the behaviour of strategic voting are also essential research in the domain and are integral to identifying individual variable tipping points. I have therefore identified three categories of these variables that help demonstrate why individuals vote strategically: (1) the perceived chances of winning the constituency, (2) preferred party and leader preferences and (3) differing likeability between the two viable parties.

In the first category of variables, academics often look at the chances of non-viable party supporters and their party's distance from contention—the gap between them and the second most viable party. This variable demonstrates the extent to which their preferred party is non-viable. For example, Niemi et al. (1992) found in their study that the further a person's preferred party is from contention, the more likely that person will vote strategically for a viable party. This distance-from-contention factor is also referred to as the preferred party's having "No Chance" and has proven to be influential in other studies (Blais et al., 2001, 2005; Hale, 2020).

The closeness in chances of winning between the two viable parties in the local constituency race has also been used extensively, although findings about it having a causal relationship are less conclusive. Given that the decision to vote strategically is based, in theory, on maximizing one's impact on the election results, a voter should be more inclined to vote strategically if that person perceives the contest as being close, since one's vote could presumably make a difference. Studies by Blais and Nadeau (1996) and Hale (2020) both prove that this variable positively

correlates with strategic voting. However, two other studies, Niemi et al. (1992) and Alvarez et al. (2006), find this variable does not have a significant effect, especially when compared to the distance-from-contention variable.

Extensive research has also gone into the preferences of the preferred party and its leader. Niemi et al. (1992: 235) show that “strong party identifiers should be relatively disinclined to vote tactically even when their favoured party is in a hopeless situation.” This partisan attachment is driven by the expressed benefit strong party supporters feel when they vote for their preferred party and the potential regret they might feel for voting for another party (Bol et al., 2018). Research done by Blais et al. (2009) further substantiates this finding. By combining party ratings, affiliation, and leader ratings into a single “preference” variable, they find a higher preference score is associated with a lesser chance of voting strategically across four Canadian elections (1988, 1993, 1997, 2000) and one British election (2005). Other studies have also demonstrated a positively correlated relationship between likeable leader evaluations and voting sincerely (Blais et al., 2005; Hale, 2020).

Preferences go beyond evaluating the preferred party. For example, Daoust and Bol (2018) find that larger preference differences between the favourite and least favourite viable parties are associated with an increase in strategic voting. These differences are exaggerated by polarization,⁴ which changes a voter’s likeability for the two viable parties. This, in turn, leads to a higher probability of voting strategically.

Beyond the causal relationship between these identified variables and strategic voting, I also wanted to understand how the theoretical concept of a tipping point might benefit our knowledge of voter behaviour. Defining a tipping point is still a difficult undertaking and has resulted in many different meanings in popular culture and the academic realm. A paper by Lamberson and Page (2012) helps explain these tipping points by identifying two types: direct and contextual tips. While the direct tip focuses on changes in the future values of the same variable, the contextual tip explains how gradual changes in an independent variable might have a discontinuous effect on another dependent variable. This contextual tipping point relationship between two variables more closely aligns with our strategic voting scenario. For example, when a gradual change in certain identified independent variables passes a threshold, this might cause a discontinuous jump from not voting strategically to voting strategically (or from 0 to 1).⁵ While tipping point terminology is often used more commonly in epidemiology, sociology or financial markets, the relevance of tipping points when evaluating voter behaviour can also provide more quantitative rigour to better understand when political decision making might change. By using this tipping point definition combined with our subset of relevant strategic voting variables, I will aim to provide baseline estimations of what those contextual tips might be for different causal variables when discussing strategic voting.

Elections under Evaluation

In this article, I use data from five elections: three in the UK (2015, 2017 and 2019) and two in Canada (2015 and 2019). Given that most strategic voting research concerns either the UK or Canada, I believe evaluating elections in these countries allows us to build on the literature while referencing past research for appropriate

methodology, as well as to compare findings. My analysis also requires multiple datasets, which are available from both Canada and the UK, given these countries' regular fielding of consistent electoral surveys. While related papers have focused on multiple elections (Daoust and Bol, 2018; Heemin and Fording, 2001; Merolla and Stephenson, 2007), I am aware of only one done across different countries (Blais et al., 2009).

The benefit of this approach is twofold. First, the use of six datasets over five elections (I use two data sources for the 2015 Canadian election) provides a greater source of data to understand countrywide voting effects. By using consistent variables and measurement methods across the aggregation of these multiple election datasets, I can account for and assess differing electoral scenarios. This helps to justify the accuracy of the variable tipping point values and to evaluate how robust and significant these effects are over time, especially if findings are similar across election datasets. Second, these multi-country results are useful in demonstrating how variables might differ in importance when evaluating the UK and Canadian strategic voter. While elections in these two countries have been extensively studied, comparing the differing influences of these variables on strategic voting between each country has not been done to this same degree and is thus an important contribution to the literature.⁶

My UK analysis focuses on the three most recent general elections for all regions except Northern Ireland.⁷ All three UK elections were won by the incumbent Conservative Party, although each election boasted a different leader who became prime minister (David Cameron in 2015, Theresa May in 2017, and Boris Johnson in 2019). The 2015 and 2019 election resulted in a Conservative majority, while the 2017 election ended with a Conservative minority government.

While the results were similar, the context influencing potential strategic votes differed in each election. In the 2015 election, the unpopularity of the Liberal Democrats left a number of their supporters with the decision of whether to "waste" their vote or to vote strategically (Hale, 2020). Meanwhile, smaller regional and fringe parties—including the Greens, Scottish National Party (SNP) and UK Independence Party (UKIP)—saw a large increase in support, and supporters were less incentivized to vote strategically.⁸

In 2017, the prospect of voting strategically came largely from individuals either voting for the Conservative Brexit campaign or for Labour's progressive, anti-austerity campaign. All in all, an estimated 33 per cent of the electorate voted differently between the 2015 and 2017 election, with the combined vote share for the Conservatives and Labour reaching 82 per cent in 2017, compared to about 67 per cent in 2015 (British Election Study, 2019).

The final election in 2019 was largely centred on each party's positions about Brexit, with the leading Conservatives promising an end to the Brexit debate. The incentive to vote strategically was therefore primarily between Labour and Liberal Democrat supporters who did not want the Conservatives to gain a majority and leave the European Union without a deal (Kellner, 2019). Overall, all three elections pointed to different reasons for the UK electorate to consider voting strategically.

The two Canadian elections provided similar motives for voting strategically. Both elections were won by Justin Trudeau and the Liberal Party, which formed a majority government in 2015 and a minority government in 2019. In Canada,

left-leaning voters are more likely to switch their vote between the Liberals, New Democratic Party (NDP) or, to a lesser extent, the Greens (Ives, 2015). During the 2015 election campaign, the Conservatives, Liberals and NDP all vied for the top spot in the polls. The potential scenario of the Conservatives winning another election eventually created a clear incentive for many left-leaning NDP or Green Party supporters to vote strategically for the Liberal Party (Ives, 2015).

In the 2019 election, the diminished presence of the NDP resulted in progressive voters calling for people to vote strategically for the Liberals to ensure the Conservatives did not form government. In the end, about “23 per cent of undecided voters didn’t know who they would vote for until election day itself” (Abedi, 2019), with a follow-up survey reporting that 35 per cent of individuals voted in a strategic manner (Bryden, 2019), demonstrating the influence that this way of thinking had on the average Canadian voter.

Data Sources

The primary data for both UK and Canadian elections come from large-scale internet studies that fielded surveys to the same respondents both before and after election day. The continuity provided by this survey structure allows us to assess an individual’s perceptions and feelings toward parties, party leaders and constituency chances of winning during the campaign and compare them with the results of post-election surveys that provide the individual’s actual vote choice.

The data for the UK analysis are taken from the British Election Study internet panel (BESIP), an online panel that has run since 2014 using a countrywide representative sample (Fieldhouse et al., 2020). From these combined waves, the number of respondents I use for all three elections is 12,030 (2015), 23,292 (2017) and 23,144 (2019),⁹ with the sample drawing from a wide set of UK voters.

The data for the Canadian analysis are taken from two sources. The first source, the Canadian Election Study (CES), provides data for both the 2015 and 2019 elections (Fournier et al., 2015; Stephenson et al., 2020). The CES 2015 dataset has 3,006 usable respondents,¹⁰ and the CES 2019 dataset included 5,197 respondents. The second source of 2015 election data is from the Local Parliament Project (LPP) (Loewen et al., 2018) with 7,974 respondents. Each Canadian dataset provides responses from all 10 provinces, although territories are not included due to their small size.

All datasets recruited respondents to meet representative demographic quotas. I limit the samples to actual voters in each election and omit survey respondents who provided inaccurate or missing key data (for example: lack of credible responses, omitting questions, missing required data).¹¹ This ensures that all data analyzed are credible and representative of the whole country. I also weigh each dataset by weights provided in the post-election surveys, which take into consideration only individuals who cast a vote in the election, making the results more representative of the voting public.

Measuring the Strategic Vote

To evaluate the presence of strategic voting, I use a version of the direct method as defined by Blais et al. (2005). First, I determine an individual’s preferred party for

each election based on how that person feels about each party, from 0 (strongly dislike) to 100 (strongly like), allowing us to rank these preferences from first to last.

Second, I use the individual's perceptions on how likely each party will win that person's constituency, from 0 (very low chance) to 100 (very high chance), to rank order party viability. The two parties with the highest chances are classified as viable, as most electoral races are contested by two parties rather than three (Blais et al., 2005; Daoust and Bol, 2018). If there was a tie between two parties for the second highest chances of winning—therefore creating three viable parties—then all three parties were considered when evaluating whether a voter preferred a viable party or not (Daoust and Bol, 2018).¹² Moreover, if the individual rated their top two parties the same, I considered both parties as preferred when assessing whether that person was a non-viable party supporter or not. Based on the individual's preferred party (or top two, if tied) and the two identified viable parties per constituency, I can determine non-viable party supporters. I classify only these non-viable party supporters as having the opportunity to vote strategically.¹³

Finally, using the post-election survey data (linked to the individual via a unique ID), I compare the individual's preferences and perceived chances of winning with vote choice. If a non-viable party supporter voted for a preferred party, that person was classified as a sincere voter; if a non-viable party supporter voted for one of the two (or three) viable parties, that person was classified as a strategic voter.

Table 1 illustrates the percentage of non-viable party supporters and strategic voters among the total electorate for each UK and Canadian election dataset.¹⁴ I also include the percentage of non-viable party supporters who voted strategically.

As Table 1 shows, strategic voting is much more widespread in the UK than in Canada.¹⁵ From my initial analysis, I see this difference as driven by two factors. First, the percentage of non-viable party supporters is about 10 percentage points higher in the UK than in Canada across all elections. The second factor is that a non-viable party supporter is statistically more likely to vote strategically in the UK than in Canada. In the UK, if I exclude the 2015 election, about half of non-viable party supporters voted strategically, while in Canada about a third did across both elections.

In general, the differences between the two countries are consistent with other studies. For example, Blais et al. (2009) found that the pool of strategic voters in four Canadian elections (1988, 1993, 1997 and 2000) was around 11 per cent, whereas the pool was around 15 per cent for the 2005 UK election. The propensity to vote strategically was also higher in the UK at about 33 per cent, compared to a range of 17–33 per cent in Canada. This study is consistent with my findings, although the pool of potential strategic voters and the propensity to vote strategically seems to be higher in my results, potentially due to the higher volatility in party loyalty found in today's system.

Empirical Strategy

My main analysis is focused on whether a non-viable party supporter voted strategically or sincerely, therefore making that the dependent variable. To focus my results, the analysis's sample includes only individuals who support a non-viable party as their first choice—a definition consistent with having the opportunity to vote strategically. This means the analysis includes a smaller group of voters

Table 1. Estimated Incidence of Non-viable Party Supporters and Strategic Voters by Election

Election	Non-viable party supporters (%)	Strategic voters (%)	Strategic voters among non-viable party supporters (%)
UK 2015 <i>N</i> = 12,030	30.3 (27.5)	9.1 (8.5)	30.0 (30.9)
UK 2017 <i>N</i> = 23,292	27.2 (25.3)	12.6 (12.7)	46.3 (50.2)
UK 2019 <i>N</i> = 23,144	32.0 (31.5)	16.2 (16.9)	50.6 (53.7)
CAN 2015: CES Data <i>N</i> = 3,006	20.1 (20.1)	7.4 (7.9)	36.8 (39.3)
CAN 2015: LPP Data <i>N</i> = 7,974	19.1 (17.4)	7.0 (6.0)	36.6 (34.5)
CAN 2019: CES Data <i>N</i> = 5,197	21.8 (22.6)	7.8 (7.7)	35.8 (34.1)

Note: Percentages are unweighted; weighted percentages are in parentheses.

from each election, but this subset is necessary to identify the tipping points for potential strategic voters. The independent variables used for my analysis are taken from other strategic voting research and consist of three categories: (1) perceived chances of winning the constituency, (2) party ratings and (3) leader ratings.

The *chance* category includes two variables. The first is the preferred party's perceived distance from contention, which I derive by calculating the difference between the chances of winning for the constituency's second most viable party and the preferred party.¹⁶ For example, if the respondent felt their preferred party had a 10 per cent chance of winning and that the second most viable party had a 25 per cent chance of winning, the result would be 15. Therefore, the higher the score, the further away the preferred party is from contention and the more likely I believe an individual will vote strategically. The other variable is the perceived closeness of the electoral race between the top two viable parties,¹⁷ which would not include the preferred party due to their non-viable status. The smaller the value of this variable, the closer the race is between the two leading parties. In a closer race, I expect individuals to be more likely to vote strategically in order to influence the winner.

The *ratings* category concentrates on party ratings. The first independent variable evaluated is the rating of the preferred party, a common variable in most strategic voting analyses. I also include the rating values given to the favourite viable party and the least favourite viable party. I standardize the ratings on a 0 (really dislike) to 100 (really like) scale, allowing me to properly compare results between countries and elections. Overall, I expect a higher rating for the preferred party and the least favourite viable party to discourage a strategic vote, while I expect a higher rating for the favourite viable party would encourage a strategic vote.

The *leader* category identifies the feelings that non-viable party supporters have toward the leaders of all three parties in question. The three variables included are the preferred party's leader rating and both the favourite and least favourite viable party leader ratings.¹⁸ Similar to the party ratings, I expect higher ratings for the preferred and least viable leader to detract from strategic voting, and the opposite for the favourite viable party leader. Given that today's political environment is fixated on party leaders, I differentiate the leader ratings from the party ratings to determine whether the sentiment of liking or disliking a party leader might be a determining factor in a strategic vote. Similar to the ratings variables, I standardize all scores to a 0–100 scale. The survey questions and the original rating scale for each independent variable is included in the online appendix.

To estimate the effect of each of the independent variables on whether an individual voted strategically or not, I run a multivariate logistic regression model. Logistic regression allows for a more accurate modelling of binary scenarios with only two possible outcomes and is more commonly used in strategic voting studies. The primary formula of my model takes the form of:

$$\begin{aligned}
 Y_i = & \beta_0 + \beta_1(\text{DISTANCE FROM CONTENTION}) + \beta_2(\text{RACE CLOSENESS}) \\
 & + \beta_3(\text{PREFERRED PARTY RATING}) \\
 & + \beta_4(\text{FAVOURITE VIABLE PARTY RATING}) \\
 & + \beta_5(\text{LEAST FAVOURITE VIABLE PARTY RATING}) \\
 & + \beta_6(\text{PREFERRED PARTY LEADER RATING}) \\
 & + \beta_7(\text{FAVOURITE VIABLE PARTY LEADER RATING}) \\
 & + \beta_8(\text{LEAST FAVOURITE VIABLE PARTY LEADER RATING}) + \beta_9 X_i + \varepsilon
 \end{aligned}$$

In my equation, the dependent variable (Y_i) is a dummy variable that indicates whether an individual (i) voted strategically (1) or not (0). The coefficient β represents the influence of each variable on Y_i . The demographic characteristics are represented by the standard vector X_i .¹⁹ I weigh the regression formula against the post-election survey weights for each corresponding dataset, making the data representative at a country level for all voters in the election.

When combining the data from all elections in each country to develop my tipping point values, I add to the formula by running a fixed effects model to account for variation across elections. Using a fixed effects model “controls for all time-invariant differences between the individuals,” therefore eliminating bias that might occur between elections (Torres-Reyna, 2007). In addition to fixed effects, I cluster the standard errors in the models by election to account for the differing dynamics of strategic voting between elections.

Drivers of Strategic Voting

The full regression results from each individual election and the combined elections for each country are both shown in the online appendix. For my analysis, I focus on the combined country regression results to identify cross-election tipping points within each country. In total, the UK and Canadian datasets consist of 9,852 and 2,353 non-viable party supporters, respectively. Within these samples, 4,128 UK (41.9% of the sample) and 850 Canadian (36.1%) respondents were identified as having voted strategically.

After running the countrywide regression models, I observe that the statistically significant variables associated with strategic voting likelihood, denoted by $p < 0.001$, and the impact they have on the dependent variable—larger positive or negative coefficient numbers—are largely similar across both countries, although they did include a few differences.

The three variables that are clearly correlated across both countries and have a high impact on strategic voting are the preferred party’s distance from contention,

the rating given to the preferred party and the favourite viable party rating. All three variables have proven to be statistically significant in other studies as well (Blais et al., 2001, 2009; Daoust and Bol, 2018). For clarity in my analysis, I have termed these the *influential predictors*.²⁰

The next two most discernible variables across both countries were the favourite viable party's leader rating and the rating for the least favourite viable party. Both these variables are statistically significant in both countries although have a smaller impact on an individual's propensity to vote strategically than the previous three variables. I have termed these variables the *relevant predictors*.

The last three non-demographic variables under consideration—the leader ratings of the preferred and the least favourite viable parties and the race closeness between the top two parties—were statistically significant in only one of the two countries or not at all. I have referred to these two variables as the *inconclusive predictors*.

Looking at the demographic variables, the regression model shows that in both countries there is a positive association between having a higher education and strategic voting and there is a negative association between being religious and strategic voting. In the UK, being male correlates with a higher likelihood of voting strategically. In Canada, interestingly, a higher income correlates with a lower likelihood of voting strategically. Finally, the fixed effects modelling allows us to see that UK voters were more likely to vote strategically in 2019 than in the other two years, while in Canada strategic voting was more likely to take place in 2015 than 2019. These results are confirmed by Table 1, which shows a higher conversion from non-viable party supporters to voting strategically in those election years.

Determining the Tipping Point

To further visualize and interpret the effects these factors have on strategic voting, I created country-specific predictive probability plots for all eight non-demographic independent variables. The prediction plots show the probability of a non-viable party supporter voting strategically based on the survey response that person provided for the identified variable, while keeping other independent variables constant at their mean.²¹ These plots are the visual summaries of the predicted values for each independent variable calculated by using the countrywide logistic regression model. The independent variable score (between 0–100)²² is shown on the x -axis, while the probability of voting strategically— $\text{Pr}(\text{Strategic Vote})$ —is depicted on the y -axis. The line in these graphs show the slope of how the variable score influences the probability of voting strategically, while the shaded region around the trendline depicts the confidence interval for 95 per cent of values. I include a dotted vertical line to show where the 50 per cent tipping point threshold is located.²³

Figures 1 and 2 illustrate the predictive probabilities for the two groupings in the UK and Canadian models, respectively. The top row of plots consists of the previously named influential predictors. The sloped lines and the larger spread on the y -axis indicate that the effects of each variable on the probability of casting a strategic vote are quite substantial. Of the three variables, the favourite viable party rating has the largest variation on voting probability. For example, a non-

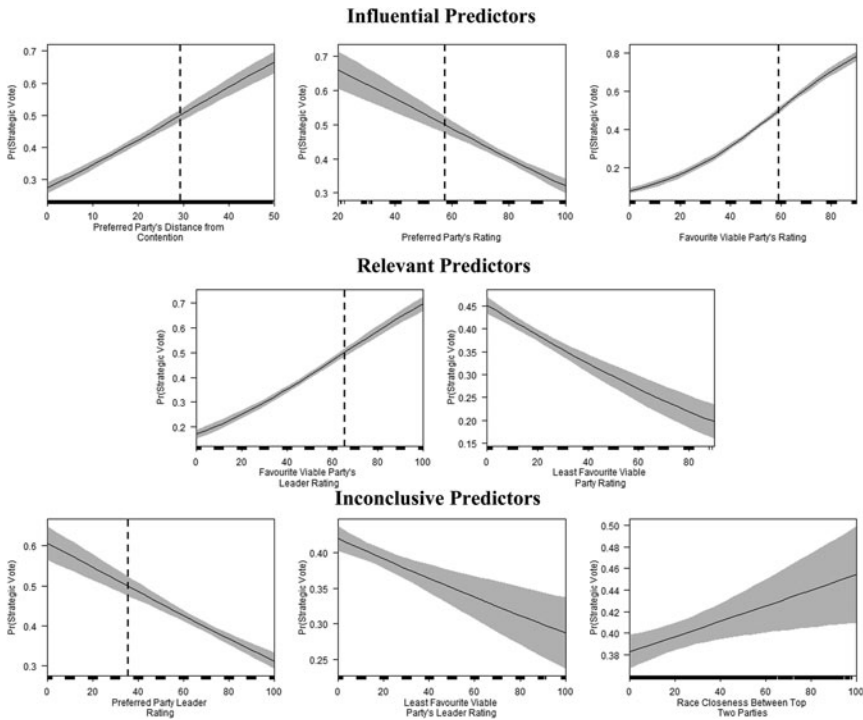


Figure 1. Predictive Probabilities of Voting Strategically by Independent Variable Score for the UK

viable party supporter who rates their favourite viable party a 20 out of 100 has only a 16 per cent probability of voting strategically in the UK and a 5 per cent chance in Canada. If that voter instead likes that party a lot and rates it 80 out of 100, that person has a 70 per cent probability of voting strategically in the UK and 59 per cent in Canada. Looking at the total spread, the difference between disliking to really liking the favourite viable party (a rating of 90 in the UK and 99 in Canada²⁴) changes the probability of voting strategically from 8 per cent to 78 per cent in the UK and from 2 per cent to 80 per cent in Canada, a spread of 70–78 per cent. While taking into consideration the upper and lower bounds of the confidence interval,²⁵ which supplies a more realistic estimate (Daoust and Bol, 2018), the spread remains 67 per cent in the UK and 71 per cent in Canada.

Looking at the upper and lower bound variation spread for the other two influential predictors, the effect is less pronounced. For the preferred party's distance from contention, the probability difference in voting strategically between the lowest and highest score is 34 per cent for UK voters and 19 per cent for Canadian voters. This low spread in Canada, coupled with a high tipping point (the preferred party must be 47 points or more behind the second most viable party for a voter to be independently pushed to vote strategically, a score given by only 2 per cent of the sample), demonstrates that this widely studied “No Chance” value is not likely to individually influence strategic voting. On the other hand, in the UK, about 18

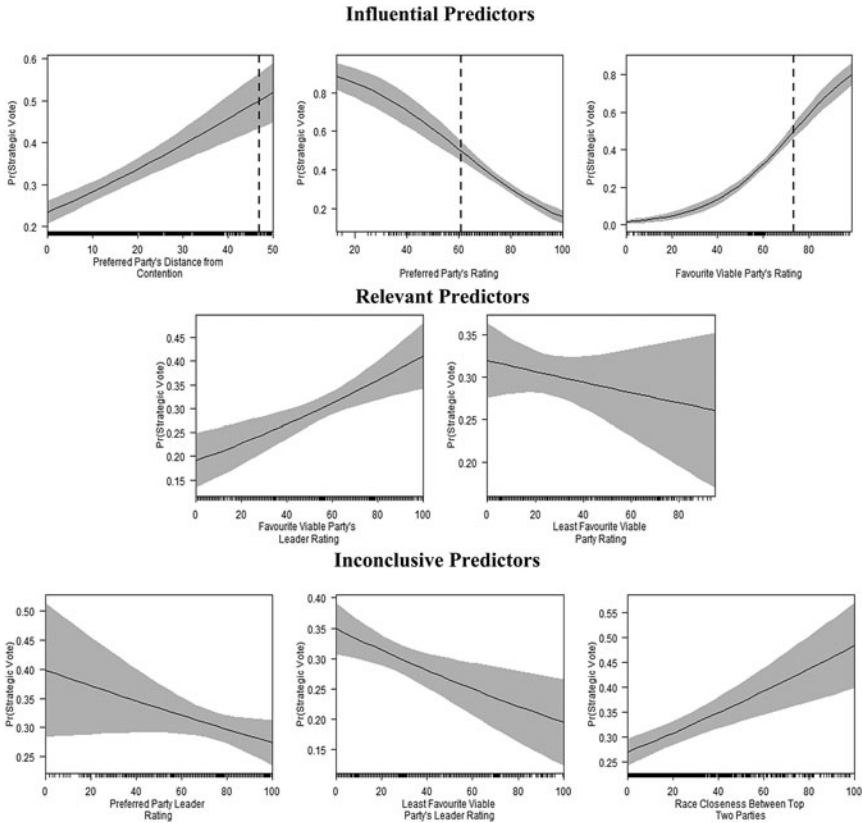


Figure 2. Predictive Probabilities of Voting Strategically by Independent Variable Score for Canada

per cent of respondents score a value higher than the distance-from-contention tipping point (at 29 per cent), indicating that it is a more pronounced reason to vote strategically in that country.

The upper and lower bound probability spread of the preferred party's rating (the third influential predictor) is even less pronounced in the UK, at 25 per cent; meanwhile in Canada, it is quite high, at 63 per cent. While this spread in Canada suggests a marked influence on strategic voting probability, most voters would not rank their preferred party lower than 70. At a more realistic rating of 70, the probability of voting strategically drops to around 45 per cent, making the probability spread less drastic than shown in the chart.

The second row—the relevant predictors—includes variables that are statistically significant in both countries. They are not as consequential in terms of strategic voting as the influential predictors and do not necessarily have a tipping point. In fact, when looking at Figures 1 and 2, we can see that only the leader rating of the favourite viable party has a tipping point, and only in the UK. This variable in the UK has a large spread in Pr(Strategic Vote) of 48 points between strongly disliking the leader and strongly liking them, making it potentially quite significant

in swaying UK voters into voting strategically,²⁶ especially considering that the variable was statistically significant in all three UK elections.

The last row of variables—the inconclusive predictors—is inconsistent in its effects between the two countries. Of the three, only the preferred party's leader rating is measurably decisive in all three UK elections and can be seen to have a tipping point at 36 per cent. Similar to the preferred party's rating, it is unlikely that a respondent would rate their preferred party's leader so low (the mean for strategic voters is 70 per cent), but with 7.3 per cent of potential strategic voters scoring below the tipping point, and the percentage of voting strategically rising to 61 per cent at a score of 0, it does remain possible that unfavourability toward the leader of one's favoured party might remain a key decision factor in voting strategically in the UK.

The results of the tipping point charts reveal the similarities and differences in strategic voting between the UK and Canada. The largest takeaway is how similar the influential predictors are when it comes to forecasting a strategic vote. Two of these three predictors (preferred party's rating and favourite viable party's rating) are statistically significant in every election for both countries, while the other (preferred party's distance from contention) is significant in five of six election datasets. These statistical similarities demonstrate how comparable the main triggers and motivations are for strategic voting between the two countries' electorates and confirm findings from other research in the domain (for example, Niemi et al., 1992; Blais et al., 2009; Daoust and Bol, 2018).

The other discernible similarity between the two countries is that the most important variable seems to be the favourite viable party's rating. By comparing the variable's average rating by strategic voters to its tipping point value for the UK (mean of 60 versus tipping point of >58) and for Canada (mean of 67 versus tipping point of >73), we can see how close strategic voters rate this variable either above (in the UK) or close to (in Canada) its tipping point.²⁷ While there are some other close scores in the UK (notably the favourite viable party leader, the preferred party leader and the preferred party's distance from contention), none show the pronounced difference between the upper and lower bounds evident in this variable's prediction plots. Further research is warranted to better understand the influence of this variable and its relationship to the actual amount of strategic voting in an election, since it seems to be a key influential variable in two of the most researched FPTP countries.

Another takeaway from these results is the differing impact of federal party leaders on strategic voting. When included in previous research, leader ratings are frequently combined in an index made up of other preference variables about the party (Blais and Nadeau, 1996; Merolla and Stephenson, 2007), leaving it difficult to discern individual effects that leaders might have on the vote decision. From this analysis, we can see that the leader of the preferred party and the favourite viable party are influential in causing a strategic vote, but only in the UK. Both these variables are statistically significant across all three UK elections and produce a tipping point value. In Canada, however, while both viable party leader ratings variables are statistically significant at a country level, that impact does not necessarily show up across all elections, nor does it result in a tipping point value. The increased influence of leader likeability in the UK presents an interesting outcome that should be

further investigated. One potential reason for this could be the evident volatility in the last few UK elections, where 33 per cent of the electorate changed party support from 2015 to 2017 and party loyalty has been shown to have diminished in UK politics over the past decades (British Election Study, 2019). Another reason might be the high number of parties in UK politics, which affords more opportunities to switch allegiances based on leader personality or unique messaging. In Canada, there are only three main parties in most of the country (the Conservatives, Liberals and NDP), leaving voters potentially more entrenched in their party affiliation and loyalty.

Finally, to ensure the robustness of my results, I reanalyzed the datasets using multiple methodologies. For example, I ran the regression formula using a linear model, which provided similar results to the main logistic output. I also ran the difference in ratings between the preferred party and favourite viable party leaders to confirm that the influence of party leader ratings holds when evaluating them relative to one another, similar to other studies (Hale, 2020). Finally, I also compared the probability of voting strategically using the output regression formula with each individual's actual vote type, demonstrating the accuracy of my model to predict a strategic vote. Overall, my model's 50 per cent tipping point predicts about 70 per cent of votes for each election. The model gets more accurate (approximately 80 per cent accuracy) when evaluating respondents who register a $\text{Pr}(\text{StrategicVote})$ below 30 per cent and above 70 per cent. These findings and takeaways are shown in the online appendix.

Conclusion

While researchers have done well to explicate the substantive reasons for voting strategically in FPTP systems, the next step is to identify at what point these factors cause an individual to switch their vote from sincere to strategic. Doing this for individual elections is difficult given the inherent complexity of political decision-making behaviour and the small sample of strategic voters in each individual election survey. Therefore, by combining three large datasets for both the UK and Canada, I believe these tipping point values add to the domain's literature and provide useful implications for the future study of voter behaviour.

By creating a quantitative benchmark for when a non-viable party supporter might shift their vote from their preferred party to their favourite viable party based on identified influential variables, this article addresses a gap in strategic voting research and contributes to a more nuanced and critical examination of voter behaviour. While reasons for voting strategically have been proposed in numerous papers and studies, they have generally lacked an easily interpretable numeric value ascribed to how much each variable rating actually contributes to a strategic vote. Using these tipping point values based on common electoral study questions makes it easier for non-academics to quantify the probability of when a non-viable party supporter might vote strategically. Moreover, applying this analysis to multiple elections across both the UK and Canada allows for a more externally valid result that can be directly applicable to future electoral scenarios, rather than limited to a single election in the past. It should be stated emphatically that I do not believe that this tipping point model is absolute: a probability threshold of 50 per cent is as

predictive as a coin flip. Using a tipping point, however, provides the levels at which certain variables might demonstrably influence a voter's decision-making criteria and impact their vote. The tipping point values must therefore be used with caution, and predictions should consider the preferences a non-viable party supporter provides for all the variables in this model, especially the statistically significant ones. Future research should add further insight to these values by using the model to predict strategic voting before the election and analyzing the accuracy of the model's predictions after the election.

In conclusion, my analysis elucidates the widespread extent of strategic voting and the critical factors that influence it, both in the UK and Canada. It is also clear that the act of voting strategically will not likely diminish in years to come (my recent electoral estimates of strategic voting are actually higher than most previous calculations). By quantifying the tipping point of when a non-viable party supporter will vote strategically, I hope this analysis helps academics, political parties and individual citizens better understand why people vote strategically and when they will do it.

Supplementary material. To view supplementary material for this article, please visit <https://doi.org/10.1017/S0008423922000312>.

Notes

- 1 This article will use *strategic voting* as its main terminology.
- 2 My definition of non-viable party supporters as those who prefer a party that is not one of the two parties most likely to win in the constituency is consistent with previous research (Cox, 1997; Daoust and Bol, 2018). Included individuals therefore might support parties that have little to no chance of winning, a distinction that is measured by the distance-from-contention variable in my regression analysis.
- 3 For Canada, I focus on the 2015 and 2019 elections; for the UK, I focus on the 2015, 2017 and 2019 elections.
- 4 They define polarization as “the ideological positions parties take in the ideological space, and the distance between these positions” (Daoust and Bol, 2018: 579).
- 5 Lamberson and Page (2012) further break down the theoretical differences between various tipping point factors and situations, which I do not investigate in this article. Further research might involve mathematically equating this analysis to their differing tipping point factors.
- 6 The nature of this analysis is first and foremost within each country, and therefore implications about the strategic voting landscape should also consider the unique political factors facing voters/politicians. However, by doing this analysis in a consistent statistical way, it is worth inferring some cross-national takeaways based on the data, which I do in the last two sections of this article.
- 7 Northern Ireland is not included in the British Election Study dataset used for this analysis and is therefore excluded from this research.
- 8 While the focus of this article is on national trends of strategic voting, section 1.6 of the online appendix shows that regional parties also face significant voting swings due to strategic voting, both in a positive and negative direction depending on the election. Further research should be done on the impact of strategic voting for regional parties, as it is not covered in detail in this article.
- 9 This is after cleaning the data for poor quality responses. The 2015 dataset is also much lower due to only half of respondents being required to answer how much they like each party, a necessary variable in this analysis.
- 10 All respondents of the 2015 CES study contacted over the phone were removed, as they did not provide chances of winning their constituency, a necessary variable in my analysis.
- 11 While the initial survey data cleaned a portion of these inaccurate answers, my additional cleaning eliminated 994 (2015), 3,024 (2017) and 3,698 (2019) respondents from the UK data and eliminated 278 (CES 2015), 2,209 (CES 2019) and 1,456 (LPP 2015) respondents from the Canadian data.
- 12 Refer to note 2 for why I only consider two parties as viable in this analysis.

13 If the individual felt the same about their two top parties, and one of those preferred parties was deemed as viable, that person would not be considered as having the opportunity to vote strategically. In total, only 2,035 UK respondents (3.9% of the total sample) and 89 Canadian respondents (0.6%) gave the same top score to two non-viable parties, thus making them eligible to vote strategically.

14 I also include in the online appendix which party each non-viable party supporter voted for based on their preferred choice by election.

15 This is true for both the weighted and unweighted results, which are within 1 to 2 percentage points of most values. Given this similarity, I report the rest of the results using the weighted values.

16 Each party's chances of winning is standardized by dividing the perceived chances by the sum total of the scores for all parties evaluated by the survey respondent.

17 In this research, I choose not to interact the closeness between the viable parties with the preferred party's distance-from-contention variables, similar to other articles (for example, Blais, 2002; Alvarez and Nagler, 2000).

18 For robustness, I also ran the regression analysis using the difference between the ratings of the preferred and favourite viable party leader instead of leader ratings (shown in section 1.4 of the online appendix). I find that the direction and influence of the differential rating is similar to the original analysis and aligns with the fact that the larger the difference is between the preferred and favourite viable party leader ratings, the less likely an individual will vote strategically. The difference between the preferred and least viable party leader ratings was not included in this robustness analysis to prevent multicollinearity.

19 For my analysis, I include five demographic variables: gender, age, education, income and religion.

20 The preferred party's distance from contention is not statistically significant in the 2019 Canadian election but is for the countrywide regressions and all other elections. I have therefore kept its definition as an influential predictor.

21 Given the goal is to predict whether a gradual increase in the independent variable score has a contextual tipping point effect on the dependent variable, I use the average scores of each other control/independent variable to isolate the relationship. This methodology allows us to provide a simplistic way of developing the prediction plot and identifying at what point the independent variable in question would cause the probability of an individual voting strategically to pass the 50 per cent threshold.

22 In the regression table, I have shown the calculated logistic regression using a 0–1 scale consistent with most studies. For the predictive tables, I have changed the scale to 0–100 to be more in line with what rankings an individual would give in the survey.

23 There are no tipping point values for three variables in the UK dataset and five variables in the Canadian dataset, and therefore no dotted line.

24 The favourite viable party rating must be lower than the preferred party rating, as per my strategic voting logic.

25 This is the smallest possible variation spread between the minimum and maximum values on the x -axis, providing a conservative estimate of the $\text{Pr}(\text{Strategic Vote})$ variation for the variable.

26 This finding aligns with the robustness check in the online appendix that compares the relative favourability between the preferred party leader and the favourite viable party leader, which shows this variable as significant.

27 All strategic voter average values, potential strategic voter average values and tipping points for each identified variable are included in the online appendix. It should be noted again that tipping point values are calculated while all other variables are at their means.

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