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Why do voters vote for third parties in single member districts?

A test of four strategic voting conditions

Abstract: Duverger's law holds that single-member district rules produce two-party systems, but third party voting remains an important feature of these institutional contexts. To explain the discrepancy between theory and empirical reality, Gary Cox specified four conditions that are necessary for the theoretical expectations to bear out. Yet, subsequent research has focused almost exclusively on just one of these conditions, namely that voters have correct information about the competitiveness of their preferred party in the district. The purpose of this paper is to assess the role of all four conditions. Using original survey data from the 2015 United Kingdom general election, the analysis suggests that violations of the information condition matter, but that violations of the short-term instrumental rationality condition can be a significant factor as well. Consequently, future research should pay more attention to this condition when seeking to explain third party voting.

Party systems should converge on two in single member district plurality (SMDP) systems according to Duverger's (1963) law. Voters should vote strategically for their preferred option among the two front-runners in the district instead of wasting their vote on hopeless third parties. Yet, substantial third party voting persists in SMDP systems at both the national (Best, 2010) and district (Gaines, 1999; Blais, 2002; Diwakar, 2007; Raymond, 2013; Singer, 2013; Milazzo, Moser and Scheiner, 2018) levels. Research on strategic voting has focused primarily on voters having inaccurate information about parties' electoral chances as the explanation for this discrepancy between theory and empirical reality. This has manifested itself in formal (Fey, 1997; Clough, 2007; Myatt, 2007; Davidovitch and Ben-Haim, 2010), observational (Black, 1978; Blais and Turgeon, 2004; Blais and Bodet, 2006; Meffert *et al.*, 2011; Herrmann, 2012; Rozenas and Sadanandan, 2018), and experimental (Forsythe *et al.*, 1993; Merolla, 2008) work. These studies argue, and demonstrate, that inaccurate perceptions about the relative chances of parties in the district lead to an increase in third party voting. The reason is that voters who are unaware that their preferred party is trailing are also unaware of their strategic incentive to abandon this party. However, while information clearly seems to matter for third party voting, existing research also shows that many third party voters are aware that their preferred party is trailing, but choose to vote for it anyway (Raymond & Tromborg, 2016). Consequently, this paper analyzes why third party voting persists in SMDP systems even though many voters know that their preferred party is trailing.

Gary Cox (1997) provides theoretical guidance for this analysis. His seminal work lays out four conditions that must be satisfied in order for the number of parties to converge on two at the district level. The first condition is the *information condition* (condition 1), which is the condition that most existing research has focused on, as explained above. The second condition is the *uncertainty condition* (condition 2). Voters must have at least some uncertainty about which of the two most viable parties will win the district (see also Moser &

Scheiner, 2009). If a voter perceives it to be certain that one particular party will win, then a vote for the second-order preference is wasted because it cannot ultimately influence the election outcome. The voter is no worse off casting the vote for the preferred third party. Consequently, violations of this assumption should lead to sincere third party voting as the default choice. Other research, however, suggests that if the preferred party is trailing then the incentive to vote strategically remains positive even if the election seems to be a foregone conclusion (Myatt and Fisher, 2017). Consequently, it is not clear that voters should actually be influenced by their perceptions of how close the election is.

The third condition is the *ability to rank* condition. Voters must be able to rank order the top two parties in terms of preference (see also Blais, 2002; Blais & Nadeau, 1996). This condition is necessary for two-party convergence because voters only have a strategic incentive to abandon their preferred party if they perceive that it helps a more competitive second-order preference to keep a less preferred party from winning. If voters do not care about how the top two parties perform relative to one another, then they have no incentive to vote for one over the other. Rather, they should vote sincerely for the party they prefer as the default option.

Cox's fourth and final condition is that voters are *short-term instrumentally rational*. This condition is violated by voters who would vote for a third party despite satisfying all other conditions. If voters know that their preferred third party is trailing, and prefer one of the front-runners over the other in a competitive race, then voters who are short-term instrumentally rational should always vote for the preferred party among the two front-runners. Voters who do not do this are thus not short-term instrumentally motivated. According to Cox, voters violate this assumption for two main reasons. First, they may be motivated to use their vote instrumentally to change political outcomes in the future instead of in the short term (e.g. protest voting or trying to make a party long-term viable). Second,

they may derive a direct consumption value from the vote (e.g. demonstrating their loyalty to a preferred third party).

The remainder of the paper, for the first time, analyzes the role of all four conditions for third party voting. This is done using data from an original survey that was administered in the days leading up to the 2015 United Kingdom general election and that is presented in full in the next section. The results suggest that voters are more likely to vote sincerely for a third party when they perceive that this party is competitive (violations of condition 1), but violations of short-term instrumental rationality (violations of condition 4) seem to matter a great deal as well (and possibly more). Perceiving that one party will win with certainty (violations of condition 2) also matters, but probably not as much as short-term instrumental rationality. All of this suggests that future research should focus more on why some voters are not short-term instrumentally motivated to explain why third party voting persists in SMDP systems.

Data and analysis

The data are from an original and representative survey that was implemented in the days leading up to the 2015 United Kingdom general election.¹ This was done in order to get measures of district level perceptions and preferences that are not available in the British Election Survey (BES).² The respondents were instructed in the following way:

*Now, we would like you to think about the election in the district
in which you are eligible to vote.*

¹ The survey respondents came from online panels run by Dynata. Respondents were accepted – or not accepted – in real time to meet demographic targets on age and gender such that the final sample matched census proportions for these demographic variables.

² For example, a rank ordering of parties at the constituency level.

Q1: The parties listed below run candidates in some constituencies and not in others. Please check the box next to each of the parties that you believe are running candidates in your district.³

Q2: Now, please rank order the parties from the one that you most prefer to win the seat in your district (write the number 1 in the box next to that party) to the one that you least prefer (write the number "2" for your second most preferred, the number "3" for your third most preferred, and so on). If you are indifferent between two or more parties, just give them the same rank (that is, write the same number in the boxes next to them).

Q3: Now, how likely do you think it is that each of these parties will win your district seat? Here, we just want your general impressions, so please sort the parties into the three general categories provided.

- *[Parties that I think have a realistic chance at winning the seat]*
- *[Parties that I think DON'T have a realistic chance of winning the seat]*

³ Possible party responses were as follows: the Conservatives, Labour, Liberal Democrats, UK Independence Party, Green Party of England and Wales, Scottish National Party (SNP), Plaid Cymru, Democratic Unionist Party, Sinn Fein, Ulster Unionist Party, Social Democratic and Labour Party (SDLP), Alliance Party of Northern Ireland. For all subsequent questions, respondents were only given the party options they identified in this question.

- *[Parties whose chances of winning the seat are unclear to me]*

Q4: And for which of these parties will you cast your vote on May 7?

The answers to these questions, coupled with information about the actual election outcome in the respondent's district, enable an analysis of whether third party voting occurs because voters perceive that their preferred third party is competitive (violations of condition 1), because they perceive that one party will win with certainty (violations of condition 2), or because they are unable or unwilling to rank order parties below their first preference (violations of condition 3). Voters who do not violate conditions 1-3 and still vote for are not short-term instrumentally motivated (condition 4).

The goal of the analysis is to test the extent to which violations of each of the four conditions can account for third party voting among citizens who have an incentive to vote strategically (whether perceived or not). Consequently, the sample only includes respondents who said they preferred a party that finished third or below in the respondent's district in the actual election (397 respondents in Q2). Respondents who preferred a party that finished first or second in the district are omitted from the analyses. Respondents who ranked two or more parties in first place in Q2 are also omitted. Using this sample, the dependent variable takes the value 1 for respondents who said that they would vote for their preferred third party in Q4 (0 otherwise). The variable thus measures sincere third party voting.⁴

The first independent variable measures when third party voters perceived that their

⁴ Coding the dependent variable as 1 for respondents who intended to vote for *any* third party instead of just the *preferred* third party does not change the results (Appendix A.2).

preferred party was competitive (violations of condition 1). It takes the value 1 for respondents who believed that their preferred third party had a realistic chance of winning in the district in Q3 (0 otherwise).⁵ The second independent variable measures when respondents perceived that a single party would win the election with certainty (violations of condition 2). It takes the value 1 for respondents who believed that only one party (and not the respondent's own preferred party) had a realistic chance of winning the district in Q3 (0 otherwise).⁶ The analysis also includes a model that omits this independent variable because the objective incentive to vote strategically remains positive for third-party voters even when this condition is violated (Myatt and Fisher, 2017). The third independent variable measures when voters did not preferentially distinguish between the top-two parties in the district (violations of condition 3). Specifically, it takes the value 1 for respondents who did not rank one of those parties above the other in Q2 (0 otherwise).

Condition 4 is somewhat conceptually ambiguous. It is a catch-all category for the reasons a voter could have to vote sincerely that do not fall under conditions 1-3. Consequently, it is not possible to measure violations of this condition as directly as violations of the other conditions. Instead, it is possible to infer such violations by regressing sincere third party voting on the three independent variables (Table 1, Model 1). With this model structure, and using a linear probability model, the constant represents an estimate of the baseline level of sincere voting due to short-term instrumental rationality.⁷ It is important to note, however, that this is indeed only an estimate due to the possibility of measurement error. Such error would inflate the constant term if some sincere voters are being incorrectly

⁵ Coding this variable as 1 instead of 0 for respondents who perceived that the chances of their preferred party were unclear does not change the results (Appendix A.3).

⁶ Respondents who perceived that only one party had a realistic chance of winning the district, but that the chances of one or more other parties were unclear, are coded as a 1 on this variable in the main paper. Coding them as a 0 does not change the direction or statistical significance of the results (Appendix A.3).

⁷ Using a logit model instead of a linear probability model does not change the results except that the condition 2 parameter estimate is significant at the .1 instead of .05 level (Appendix A.4).

classified as violating short-term instrumental rationality. As such, the constant estimate can be considered a ceiling estimate for the amount of total short-term instrumental rationality among voters who do not violate conditions 1-3.⁸

The coefficient on each of the independent variables represents the change in the probability of voting sincerely due to violations of the associated condition. Furthermore, since the research question concerns aggregate levels of third party voting, Table 1 also reports the size of each group (i.e. the proportion of the sample respondents violating each condition). Multiplying the size of the group with the associated covariate parameter (or constant parameter) from Model 1.1 and Model 1.2 gives an estimate of the effect that violations of a given condition have on the level of sincere third party voting among all voters in the population who prefer a third party in their district. These results are also reported in Table 1.

⁸ There are also other possible sources of error that could influence the estimates such as clicking the wrong button.

Table 1: The probability of sincere voting among voters who prefer a third party

Parameter	Model 1.1	Group size	Population effect	Model 1.2	Group size	Population effect
Condition 1 (<i>perceiving third party is competitive</i>)	0.13* (0.06)	0.46*** (0.03)	0.06* [0.01, 0.12]	0.06 (0.05)	0.46*** (0.03)	0.03 [-0.01, 0.07]
Condition 2 (<i>perceiving one party will win with certainty</i>)	0.13* (0.06)	0.27*** (0.02)	0.04* [0.00, 0.07]	-	-	-
Condition 3 (<i>inability to rank order top-two parties</i>)	-0.13 (0.09)	0.07*** (0.01)	-0.01 [-0.02, 0.00]	-0.12 (0.09)	0.07*** (0.01)	-0.01 [-0.02, 0.00]
Constant (<i>condition 4</i>)	0.58*** (0.05)	0.15*** (0.02)	0.09*** [0.06, 0.11]	0.64*** (0.03)	0.32*** (0.02)	0.20*** [0.17, 0.24]
R ²	0.02	-	-	0.01	-	-
Obs.	397	397	397	397	397	397

***p<.001, **p<.01, *p<.05 †p<.1. Linear probability model. Std. errors are in parentheses. 95% confidence intervals are in square brackets (simulated using the Clarify software package in Stata). The group size refers to the proportion of respondents violating a condition in the sample.

The results from Model 1.1 replicate the well-established finding that perceiving a preferred third party is competitive (violations of condition 1) is associated with more third party voting (but only when violations of condition 2 are held constant). Voters who perceive that their preferred third party is competitive have a .13 higher probability of voting sincerely than those who do not perceive that their preferred third party is competitive. Furthermore, this condition is violated relatively frequently. 46 per cent of all the respondents perceived that their preferred third party was competitive in the district. This is consistent with previous research showing that voters engage in wishful thinking when they form their perceptions of their preferred party's electoral chances (Uhlener and Grofman, 1986).

However, the table also shows that the information condition is not the only condition that matters for third party voting. Perceiving that a non-preferred party will win with certainty (violations of condition 2) is associated with a similar shift in the probability of voting sincerely. Condition 2, however, was not violated as frequently as condition 1. Only

27 per cent of the respondents violated condition 2. This indicates that violations of condition 2 might not account for as much third party voting in the electorate as violations of condition 1 (though the differences in the estimated population effects sizes are not statistically significant). Nonetheless, it is interesting that voters seem to be influenced by their perceptions of district competitiveness. It suggests that voters who prefer a third party perceive a weaker incentive to vote strategically when they perceive the district is non-competitive, even though the incentive is actually positive (Myatt and Fisher, 2017)

The results for the independent variables in Table 1 thus indicate that voters are more likely to engage in sincere third party voting when they perceive that their preferred third party is competitive, or that one party will win with certainty. However, the substantive size of these relationships are dwarfed by the size of the constant. The constant coefficient indicates that a voter who has a strategic incentive to abandon a preferred party for one of the two front-runners, and who does not violate conditions 1-3, has a .58 probability of voting sincerely. This indicates that 58 per cent of voters who have a strategic incentive to abandon their preferred party – because they satisfy conditions 1-3 – will not do so (and thus violate condition 4). The estimate is consistent with other research indicating that approximately 60 percent of English voters are not instrumentally motivated (Myatt and Fisher, 2017), and that only 35 percent of the British electorate votes strategically when it has an incentive to do so (Eggers and Vivyan, 2020).⁹ Additionally, 15 per cent of all respondents in the full sample were identified as not being short-term instrumentally rational (under the assumptions of Duvergerian strategic voting) as they intended to vote sincerely despite satisfying the three other conditions for strategic voting. The population estimates for these condition 4 violations are significantly different from violations of condition 2 and condition 3 at the $p < .05$ level,

⁹ In Japan, the percentage of strategic voters is estimated to be higher at between 63.4 percent and 84.9 percent (Kawai and Watanabe, 2013).

but not from violations of condition 1. Furthermore, even more respondents could have violated condition 4, but they are not directly identifiable in the data because they violated other strategic voting conditions as well. In brief, violations of the short-term instrumental rationality condition are estimated to produce more third party voting in the population than violations of conditions 2 and 3, at least as much as violations of condition 1, and possibly more if there are respondents who were not short-term instrumentally motivated “lurking” among those who violated other strategic voting conditions.

Conclusion and discussion

Existing research on strategic voting has focused on voters perceiving that their preferred third party is competitive as the main explanation of third party voting, but the results presented in this paper indicate that there is a need for future research to focus on short-term instrumental rationality as well. In order to inform such new research, the concluding section discusses possible reasons why voters may violate this condition.¹⁰

There are two main reasons why voters violate the short-term instrumental rationality condition according to Cox (1997, 1): Voters engaging in *long-term strategies*, and 2) voters voting sincerely due to a *direct consumption value of the vote*. Voters who belong in the former category are likely to have different types of long-term strategies. One long-term strategy that there has been some focus on in existing research is protest voting (Kang, 2004; Kselman & Niou, 2010). Here, the goal is to signal dissatisfaction in the hope of changing one or more other parties’ behavior in the future. However, there are other possible long-term motivations. For example, voters might choose to vote for a preferred third party in order to boost the party’s electoral chances in the future. Knowing that some, but not all, citizens vote

¹⁰ A preliminary analysis in Appendix A.5 suggests that voters who perceive to be ideologically close to their preferred party are more likely to violate the short-term instrumental rationality condition.

strategically, it could be a winning long-term strategy to vote for the preferred third party to increase the probability that it becomes more electorally viable in the future.

Finally, sincere voting due to a direct consumption value of the vote is also likely to be driven by different motivations. Voters might, for example, get more value from voting sincerely than strategically when they feel strongly attached to a party. In such cases, the utility of voting is likely derived from the expression of loyalty to the party. However, voters may also derive a direct consumption value from performing their civic duty – where that duty is perceived to be to vote for the most preferred party – independent of the strength of their party identification. Indeed, the satisfaction associated with performing the civic duty has been argued to be a key reason why people vote in the first place (Riker & Ordeshook, 1968). Likewise, it may be an important, yet understudied, reason for understanding why some voters do not act in a short-term instrumentally rational way. Understanding this as well as other possible explanations should be prioritized by future research in order to facilitate a better understanding of when and why Duverger's law does, and does not, hold in SMDP systems.

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