

Encouraging Loyalty and Defection: The Impact of Campaigns on Tactical Voting in Britain

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Abstract

In this article I study the impact of party campaigns, in the form of direct contacts with voters, on the probability that voters cast a tactical vote. As such, I focus exclusively on voters who are in a position to cast a tactical vote because their most preferred party is not viable using data for three General Elections in the United Kingdom. Exploiting a panel data structure with multiple survey waves within each campaign, I deal with the challenge of strategic party outreach behavior which would otherwise bias estimates of campaign effects. My findings show that party campaigns can have a strong influence in encouraging loyalty to non-viable parties as well as defection to viable ones. This findings are important as little is known about what influences voters' decision to cast tactical votes, beyond their demographic characteristics and the electoral circumstances they may find themselves in.

Keywords: tactical voting; strategic voting; voting behavior; panel data

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1 Introduction

In winner-take-all electoral systems, voters are often faced with the situation that their most preferred candidate is unlikely to carry the seat. In elections with more than two candidates, voters facing this situation can choose one of three alternative actions: (1) remain loyal to their most preferred candidate, even if this candidate is unlikely to win; (2) defect to one of the parties that do have a chance of winning the seat, thus voting tactically, even if only to prevent a more disliked candidate from being elected (Duverger, 1954); or (3) abstain from voting altogether.¹

The second option, casting a tactical vote, has received widespread attention in the voting behavior literature.² There is a large empirical literature that has generally focused on measuring the extent to which tactical voting occurs. Evidence from a variety of countries and electoral systems shows that around 15 to 40 per cent of voters who are in a position to cast a tactical vote, that is, voters whose most preferred party or candidate is considered to be non-viable in their district, actually decide to do so (Alvarez et al., 2018). These levels of tactical voting can have important consequences for overall election outcomes. For example, Kiewiet (2013) finds that as many as one in five Labour seats in Westminster are won thanks to tactical votes by Liberal Democrat Supporters.

But perhaps because of the challenges in measuring the extent of tactical voting, the literature has focused significantly less on why some voters behave tactically while others do not. While many important correlates of tactical voting have been found (see section 2), they typically relate to demographic characteristics of the voters or to electoral circumstances. Importantly, these correlates are generally non-actionable; that is, they are not variables that an electoral participant can modify (at least within the time frame of a campaign) so as to encourage voters to remain loyal to their more preferred party or to encourage supporters of non-viable

¹It is of course possible for a voter to cast a vote for a candidate that is not the most preferred and is also not likely to win. However, it is hard to imagine a voter doing this other than by mistake. Exceptions may exist in electoral systems that are more complex, like those with compensatory seats, which create different incentives. The case studied here, the United Kingdom, is a simple first-past-the-post electoral system which does not generate these more complex incentives (other than potential coalition incentives, which are not served by voting for a non-preferred non-viable candidate anyhow).

²Please note that what I call tactical voting in this article has also been referred to as strategic voting.

parties to defect and vote tactically for another. Therefore, our understanding of tactical voting remains limited.

In this paper, I estimate the effect that being contacted by political parties has on voters' propensity to cast a tactical vote, thus remaining defecting their most preferred party; or remaining loyal; or alternatively abstaining from voting. Direct outreach to voters during the campaign, party contacts, are an actionable (potential) correlate of tactical voting, as parties can decide whether to contact voters or not during the electoral campaign. The empirical challenge lies in correctly identifying the effect of party contact itself, independent of the effect of unobserved confounders. An important concern is that parties choose which voters they want to contact, possibly because they believe they'll be more likely to respond to their message or appeals. Ideally, disentangling the effects of party contacts from parties' strategic decision to contact some voters but not others could be done by relying on field experiments, in the spirit of Gerber et al. (2008). However, while an experimental intervention in a real election aimed at increasing voter turnout may be relatively uncontroversial, one aimed at altering voters' choices faces significant moral dilemmas.

To address this estimation challenge, I exploit the panel structure of the British Election Study (BES) Online Panel, focusing on the data collected around the 2015, 2017, and 2019 United Kingdom General Elections. Following Núñez (2021), I use focus on three survey waves for each election. With data for the first two waves, I estimate a model in which the outcome is whether a voter is contacted by a party or not. Using these models, I obtained the predicted probability that a voter would be contacted in the third wave. Finally, I estimate the effect of actual party contacts on whether a voters casts a tactical vote or not, controlling for this predicted probability of contact, using only data for the third (post election) wave in each election cycle. This predicted probability significantly reduces or eliminates the concerns of endogeneity of party contacts, since they provide a measure of the intent of parties to contact certain voters but not others that is separate from the actual contacts conducted in the estimation weave.

My findings show that voter outreach in the form of party contacts conducted during the

2015, 2017, and 2019 General Elections have significant impacts on the probability of voters deciding to cast a tactical vote, thus defecting their most preferred party. In England, specifically, I find that the overall impact of contacts conducted by voters' most preferred party led to a reduction of between 2% and 4% in the incidence of tactical voting, depending on the election. On the other hand, the outreach by most preferred viable parties of voters whose preferred party is out of the race increased the incidence of tactical by between 4.3% and 6.5%, clearly more than compensating the impact of direct outreach by the most preferred parties. Put together, the overall impact of party campaigns on tactical voting is to produce a net increase of between 1.6% and 2.7% in the incidence of tactical voting in England. Estimates for Scotland and Wales follow similar patterns, although with somewhat different magnitudes.

The rest of the article is organized as follows. In Section 2 I discuss the related literature on tactical voting as well as literature on campaign effects in the United Kingdom; in Section 3 I describe the data and the methodology used to estimate the impact of party contacts on tactical voting; Section 4 presents the results; and Section 5 concludes.

2 Related Literature

As mentioned in the introduction, despite the attention that the measurement of tactical voting has received by empirical researchers, there is less understanding on why and when some voters cast tactical votes when in a position to do so, while others do not. In particular, the determinants identified in the literature do not provide with actionable recommendations. However, it is worthwhile to review these determinants. The variables that the literature has found to be associated with tactical voting can be broadly grouped in two categories: those that relate to the individual voter, and those that relate to the electoral environment.

Among the individual voter characteristics the literature has found that voters that have strong partisan or ideological attachments are significantly less likely than other voters to cast a tactical vote (see Blais, 2002; Lanoue and Bowler, 1992; Karp et al., 2002).³ There is also

³Similar effects have been found in the study of split-ticket voting in the U.S. (Burden and Kimball, 1998;

evidence that voters' political sophistication and political knowledge (sometimes proxied by education levels) are positively associated with tactical voting (Alvarez et al., 2006; Gschwend and van der Kolk, 2006; Karp et al., 2002). There is also evidence that when voters are experienced with the electoral system they are more likely to exploit it and vote tactically (Spenkuch, 2018; Duch and Palmer, 2002); and that voters who believe the media influences the voting decisions of others are more likely to behave tactically (Cohen and Tsfati, 2009).

Among the electoral environment variables, theoretical models put particular emphasis on the closeness of the election (see, for example Cox, 1997). that is, when the race between the top-two contenders is considered to be close, it is expected that third party supporters be more likely to vote tactically, as a defection from their most preferred party is more likely to be pivotal. Empirical results tend to support this theoretical expectation, albeit weakly (Lanoue and Bowler, 1992; Fisher, 2000; Kiewiet, 2013; Elff, 2014; Núñez, 2016). The empirical literature has also found that the presence of a viable close ideological substitute to a non-viable preferred party encourages tactical voting (Karp et al., 2002), and that the presence of an incumbent politician interferes with the decision to cast a tactical vote (Moser and Scheiner, 2005).

This paper is also related to the literature that studies campaign effectiveness. Experimental evidence from multiple countries has shown that citizens are responsive to get-out-the-vote (GOVT) efforts (see, for example, Gerber et al., 2008; Arceneaux and Nickerson, 2009; John and Brannan, 2008; Fieldhouse et al., 2013; Townsley, 2018). Others studied have instead focused on observational data and also found this positive effect (see, for example Geys, 2006; Karp et al., 2008). There is a substantial literature on British elections that studies the effects of local campaigning that generally finds that parties benefit electorally from more organized and intense local campaigns, both in terms of mobilization and in terms of their vote share (Fisher et al., 2016, 2011, 2019; Pattie and Johnston, 2003; Johnston et al., 2013; Clarke et al., 2004, 2009; Cutts, 2014; Whiteley and Seyd, 1994; Fieldhouse et al., 2020; Núñez, 2021)

Beck et al., 1992)

3 Data & Methods

3.1 Data

To study the effect of party contacts on the probability of casting a tactical vote, I use data from nine waves of the British Election Study (BES) Online Panel. The first three waves cover the 2015 General Election; the following three cover the 2017 General Election; and the final three cover the 2019 General Election. Each election is analyzed separately. The data includes respondents in English, Scottish, and Welsh Westminster Constituencies.⁴

The analysis focuses exclusively on those voters whose most preferred party is not viable; that is, those voters who are in a position to cast a tactical vote (see, for example Alvarez et al., 2006). I define a party as viable if it finished among the top-two contenders in a given constituency in the corresponding election. Note that there are alternative ways to define party viability. For example, the BES data includes items asking respondents to gauge the probability that a given party will win their constituency. However, using these data involves several challenges. First, probabilities do not add up to one (in many cases they add up to more than 4). Second, this question is not answered by all respondents, substantially limiting the sample (in potentially biased ways). Finally, this question is only asked in two waves, thus further limiting the sample. Another alternative is to use the results of the prior election, as research has shown that voters tend to follow an election history heuristic (Lago, 2008). However, given the strong wins by the SNP in Scotland in 2015, the strong performance of UKIP in England, and the emergence of the Brexit party, prior election results may not be good measures of viability in this study (especially since these results these events were not completely unexpected).

To define the outcome of interest (tactical voting), it is first necessary to define voters' preferences. To do this, I define a voter's most preferred party as the party to which the voter assigned the highest feeling thermometer score. If there are ties, these are broken by the feeling thermometer score for the leaders of the tied parties. For any remaining ties, all tied parties

⁴The BES Online Panel does not include respondents from Northern Ireland. Therefore, this constituent country of the United Kingdom is not included in the analysis.

are considered the most preferred party for those voters.⁵ I also define voters' most preferred viable party as the most preferred party from among the viable ones in each constituency (with ties broken in the same way); and voters least preferred viable party as the least preferred from among the viable ones in the constituencies (ties also broken in the same way).

Using these variables, I can now define the outcome, which is a categorical variable with three values. The first category is abstentions, not casting a vote for any party. The second category is a tactical vote, defined as a vote for the most preferred viable party (recall that the sample is restricted to voters whose most preferred party is out of the race). The third category is a non-tactical vote, which includes all positive votes that are not tactical.⁶

The main independent variables of interest are three indices that measure voters' contact by their most preferred, most preferred viable, and least preferred viable parties in the four weeks prior to each survey wave. These indices are constructed by counting the number of modes in which a party contacted a voter in each wave. The modes of contact considered here are: telephone, letter or leaflet through the mail, home canvassing visits, meeting in the street, email, SMS (text messaging), and social media. The use of contact indices as opposed to binary indicators is preferred for two interconnected reasons. First, the use of indices provides a more nuanced measure that better approximates the intensity of contact. Second, and relatedly, a very large portion of voters receive (or at least are sent) the candidates' address delivered free of charge by the Royal Mail.

As control variables I include the feeling thermometer score for the most preferred, most preferred viable, and least preferred viable parties. These are important to include, as the goal is to measure the direct impact of party contacts on tactical voting, rather than conflating it with the impact on preferences which may translate into more or less tactical voting instead. Additionally, I also include a number of time-invariant characteristics (invariant within the time frame of the study): age, gender, education level, household income, household size, housing

⁵There have been multiple criticisms to defining voter preferences using feeling thermometers (see, for example Alvarez and Nagler, 2000). Data limitations preclude me from defining preferences in alternative ways.

⁶Thus, non-tactical votes include both sincere votes for the most preferred party, but also votes for other parties, which could be the result of mistakes or other types of behavior.

(owns outright, rents), employment status (retired, unemployed, employed full time), and race (white British).

3.2 Methods

As mentioned in the introduction an important empirical challenge in measuring the impact that party campaigns, in the form of direct voter outreach, have on the likelihood that a voter casts a tactical vote is that parties' behavior is strategic, at least in principle. That means that parties will attempt to reach certain types of voters whom they believe are more likely to be convinced or swayed in the way they desire. In the case of tactical voting, parties have clear incentives to try to contact those voters who might defect their most preferred party when that party is considered non-viable in a given constituency. Insofar as parties are somewhat strategic in their campaign contacting decisions, the estimates of the probability of a tactical vote as a function of party contacts will be upwardly biased: it will appear that parties are more effective at changing voters' behavior than they actually are, by simply reflecting the fact that parties are contacting voters who are more likely to behave in the desired way in the first place. Notice that the existence of this bias does not rely on parties being excellent at targeting the 'right' voters; any tendency to target the most easily convinced voters, which all parties have an incentive to do, will generate some amount of bias.⁷

This challenge is not straightforward to resolve. A natural first approach is to estimate a model that includes a variety of individual and constituency-level characteristics that hopefully capture the characteristics that make parties contact some voters (in some constituencies) but not others. However, this approach has limitations, as researchers do not directly observe the process behind parties' campaigning decisions, thus limiting its utility to some extent.

⁷One could also imagine a situation in which a party is run by so an incompetent group of people that they only go after the most difficult to convince voters. This would also create bias in the estimates, although in the form of underestimation bias, although I deem this unlikely. The only circumstance in which party's behavior would no create any form bias in the estimates is if the party contacted voters completely at random or at random conditional on observed covariates in the researchers data. Completely at random contacts are extremely unlikely. Random conditional on observed covariates are plausible, but unlikely due to the fact that parties and candidates have information that is not always available to researchers and, even when it is, it is used in ways that researchers cannot easily determine.

The BES data, however, has a significant advantage that lies in its panel structure: containing information for each voter at multiple times during each campaign. The panel structure allows for controlling for parties strategic behavior in their contacting decisions without being privy to the parties’ and candidates’ decision-making processes. The key methodological insight is to use the earlier waves in an election to estimate parties’ contact behavior from which to generate predicted contact probabilities for the final wave of the election. The impact of contacts on tactical voting are estimated using only the third wave, and include the predicted probabilities of contact as control variables. Importantly, these predicted probabilities of contact do not use party contact data from the final wave, thus providing a measure of parties’ behavior that is separate from actual contacts.⁸

Following Núñez (2021), who focuses on campaign effects at large, I first estimate the probability of a voter being contacted by a particular party based on a series of individual level characteristics that include feeling thermometers for the different parties, a variety of demographics, as well as constituency-level random effects.⁹ This estimation only relies on the first two waves (out of three) for each election and focuses exclusively on voters who are in a position to cast a tactical vote:

$$P(\text{Contact}_{it}^p = 1) = \Lambda(\alpha^p + \beta^p x_{it} + \delta_{i[c]}^p), \quad t \in \{1, 2\}, \quad p = \text{Con}, \text{Lab}, \text{LD}, \text{SNP}, \text{PC}, \text{UKIP}, \text{Grn} \quad (1)$$

where Contact_{it}^p is an indicator that equals 1 if voter i reports being contacted by party p in the four weeks prior to wave t ; x_{it} are the covariates previously described; α^p and β^p are parameters for the equation for party p ; $\delta_{i[c]}^p$ is a random effect for the constituency c in which voter i resides and is allow to vary by party p ; and $\Lambda(\cdot)$ is a logistic link.

From the models in equation 1, I produce predicted probabilities of contact for the third

⁸The predicted probabilities are of course correlated with actual contacts. In fact, this is how they can actually control for parties’ strategic behavior.

⁹Constituency fixed-effects produce very similar, but less precise, results and thus random effects are preferred.

wave in each election. That is, I calculate:

$$PrContact_{i3}^p = \Lambda(\hat{\alpha}^p + \hat{\beta}^p x_{i3} + \hat{\delta}_{i[c]}^p), \quad p = Con, Lab, LD, SNP, PC, UKIP, Grn \quad (2)$$

where $PrContact_{i3}^p$ is the predicted probability that individual i is contacted by party p in wave $t = 3$, based on the model estimated using waves $t = 1, 2$ from equation 1.

The model I use to estimate the effect of party contacts on the probability of casting a tactical vote takes the following form:

$$P(y_{i3} = j) = \Lambda(\alpha_j + \beta_{j1}ContFirst_{i3} + \beta_{j2}ContViable_{i3} + \beta_{j3}ContLeast_{i3} + \gamma_jControls_{i3}) \quad (3)$$

where y_{i3} is a categorical variable for individual i in wave $t = 3$ that indicates whether i abstained from voting ($j = 0$), cast a non-tactical vote ($j = 1$), or cast a tactical vote ($j = 2$); $ContFirst_{i3}$ is an index of contact by i 's most preferred party (who is out of the race) during the four weeks prior to wave $t = 3$; $ContViable_{i3}$ is an index of contact by i 's most preferred party out of the viable ones; $ContLeast_{i3}$ is an index of contact by i 's least preferred party out of the viable ones; $Controls_{i3}$ are control variables from wave $t = 3$ for each election, which include the predicted probabilities calculated in equation 2; and α_j , β_{j1} , β_{j2} , β_{j3} and γ_j are choice-specific parameters.

Additionally, I estimate equation 3 separately for voters with the same most preferred party. Due to data limitations, however, this is only possible for England (although estimates for voters who prefer the Conservative party do not converge and are thus not included), and Scotland in 2017 and 2019 (excluding voters who preferred the SNP). Estimates by party for Wales are not possible due to smaller sample sizes.

4 Results

4.1 Extent of Tactical Voting

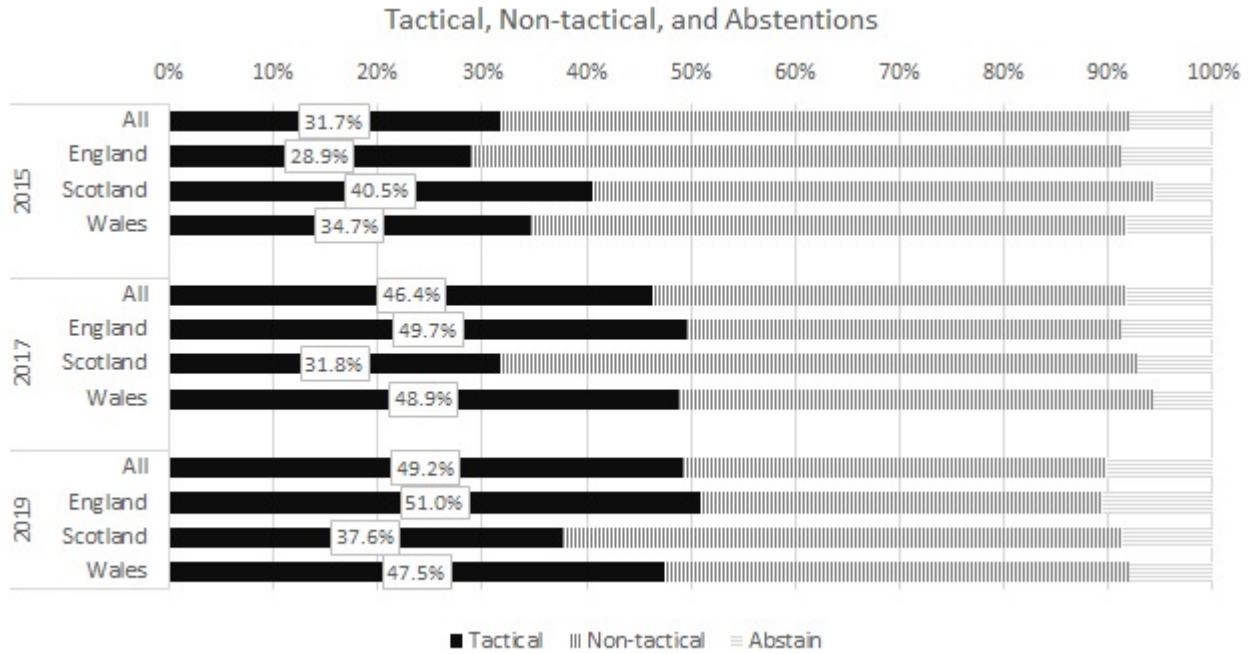
Before presenting the results that show the impact of party contacts on tactical voting behavior, it is useful to first describe its extent in the three elections being considered here: the General Elections of 2015, 2017, and 2019. Figure 1 shows the percentage of tactical, non-tactical, and abstaining voters from among those voters in a position to cast a tactical vote (i.e., whose most preferred party is out of the race). These figures were obtained from reported votes in the post-election survey wave for each election. Considering all three countries together (England, Scotland, and Wales), 31.7% of voters in a position to vote tactically did so in 2015.¹⁰ This proportion increases noticeably in 2017, reaching 46.4%, and it increases slightly more in the 2019 General Election to 49.2% of voters in a position to cast a tactical vote. While the 2015 figures are in-line with previous/historical calculations, which are around 30% to 40% (see, for example, Kiewiet, 2013), the values for 2017 and 2019 are higher than typically estimated. Partly, these higher numbers have to do with a larger number of voters ranking the Green Party, UKIP, and the Brexit Party (in 2019) higher, which increased the number of voters with perhaps a history of experience of voting for the top two parties (or perhaps the Liberal Democrats) who now don't rank them highly but still vote for them. However, further research is necessary here to determine this overall increase in tactical voting.

Looking individually at each country, this higher share of tactical behavior is observed in both England and Wales, but not in the case of Scotland. There, tactical voting reaches 40.5% of voters in a position to cast a tactical vote in the 2015 General Election, drops to 31.8% in 2017, and then increases again to 37.6% in 2019.

Regardless of the different extents to which tactical voting occurred in each country and election, the matter is the extent to which these shares of tactical voters are influenced by parties' campaigns in the form of direct voters outreach.

¹⁰Northern Ireland is not included in the BES Online Panel.

Figure 1: Tactical Behavior among Voters in a Position to Cast a Tactical Vote



4.2 The Effect of Party Contacts on Tactical Voting

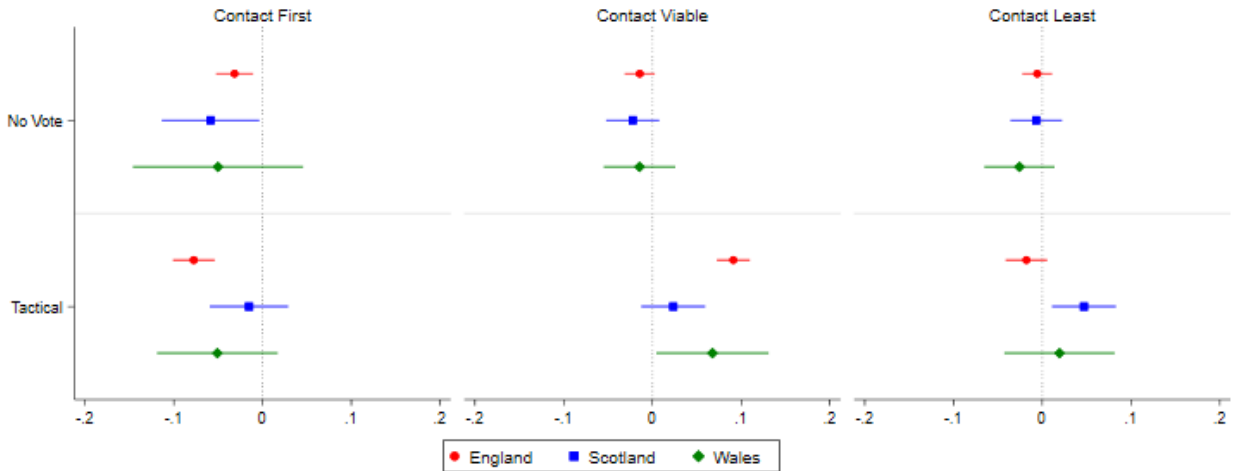
In this subsection I present the estimates for the model in equation 3 for each constituent country (England, Scotland, Wales) and each General Election (2015, 2017, and 2019) separately. In all cases, I pool all observations irrespective of a voters' most preferred party. In the next subsection, however, I estimate separate models for the supporters of each party.

Figure 2 shows the average partial effect of the contact indices derived from estimates of model 3 for England, Scotland, and Wales for the 2015 General Election (Table A1 in the Appendix contains the same results). The top half shows the impact of party contacts on the probability of abstaining, whereas the lower half shows the impact of party contacts on the probability of casting a tactical vote.¹¹ The first column, 'Contact First,' refers to contact by the most preferred party, which by definition, is considered to be out of the race in the voter's constituency. The second column, 'Contact Viable,' refers to the voters' most preferred party

¹¹The impact of the contact variables on the third outcome category, non-tactical vote, are not reported here. However, since the categorical outcome variable is exhaustive, average partial effects for that outcome can be inferred from the other two, as they must overall add up to zero.

out of the viable ones in her constituency; the third column, ‘Contact Least,’ refers to the voters least preferred party out of the viable ones.

Figure 2: 2015 Election



All values are average partial effects. Standard errors are clustered at the constituency level. ‘Contact First’ is the index of contact by the voter’s most preferred party, ‘Contact Viable’ by the most preferred party out of the viable ones, ‘Contact Least’ by the least preferred party out of the viable ones.

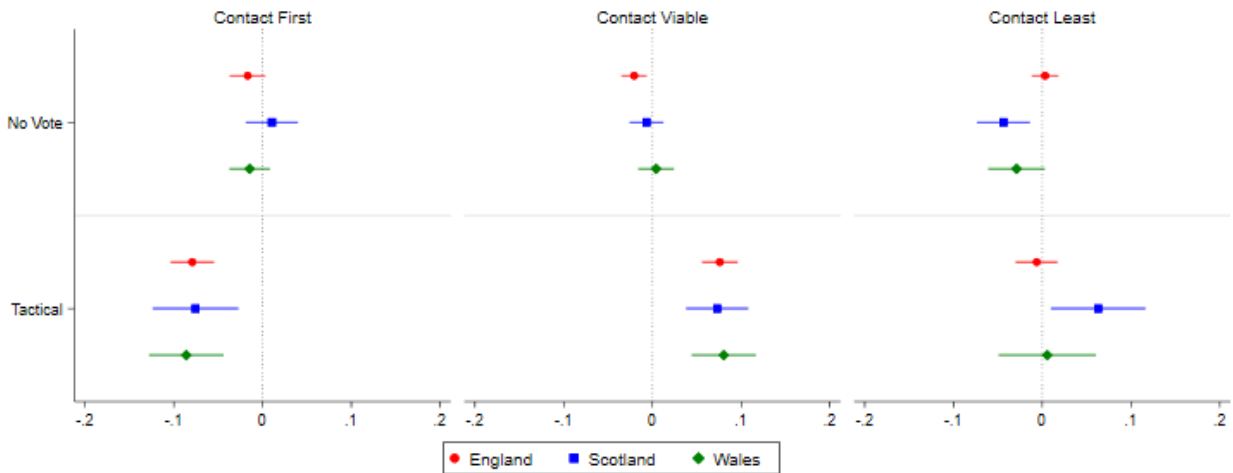
The results for England show that contact by a voter’s most preferred party is associated with a 3.2% reduction in the probability of abstaining and a 7.7% reduction in the probability of casting a tactical vote. On the other hand, contact by a voter’s most preferred viable party has a small (and not statistically significant) impact on abstention, but increases the probability of casting a tactical vote by 9.1%, slightly larger than the reduction in tactical voting from contact by the most preferred party. Finally, contact by the least preferred party does not seem to have a significant impact on either abstentions or tactical voting (there is a reduction in tactical voting that is not statistically significant). The results for Wales are largely consistent with those in England in both direction and magnitude, although almost all of the effects in Wales are statistically insignificant, due to smaller sample sizes evidenced by the rather wide confidence intervals.

The results for Scotland in 2015 show several differences with those from England. While the impact of contact by the most preferred, most preferred viable and least preferred viable parties

on the probability of abstention is largely consistent with that observed in England (although at lower significance levels), the impact on tactical voting is very different. Contact by the most preferred party in Scotland does not seem to impact the probability of casting a tactical vote. On the other hand, contact by a voter’s most preferred viable party leads to a small increase in the probability of casting a tactical vote (2.3%), although it is not statistically significant. Finally, contact by a voter’s least preferred party is associated with a higher 4.7% higher chance of casting a tactical vote (a sign of campaigning potentially backfiring).

Figure 3 (and Appendix Table A2) present the results by country for the 2017 General Election. Contact by the most preferred party reduces the probability of a tactical vote by around 8 percentage points and is fairly very similar across the three constituent countries analyzed.¹² Contrary to 2015, there is no evidence that contact by the most preferred party reduces abstentions, although the 1.7% reduction in abstentions in England is almost statistically significant at the 10% level.

Figure 3: 2017 Election



All values are average partial effects. Standard errors are clustered at the constituency level. ‘Contact First’ is the index of contact by the voter’s most preferred party, ‘Contact Viable’ by the most preferred party out of the viable ones, ‘Contact Least’ by the least preferred party out of the viable ones.

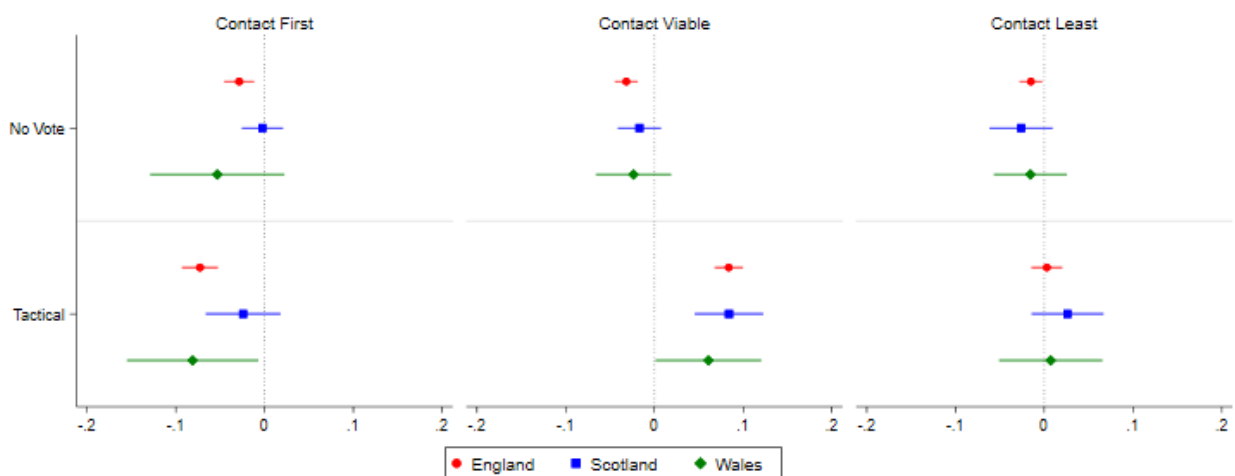
Contact by the most preferred viable party during the 2017 General Election also had a

¹²The effect is reduction in the probability of a tactical vote of 7.9% in England, 7.6% in Scotland, and 8.6% in Wales

similar impact on the probability of a tactical vote across the three constituent countries, leading to an increase of 7.6%, 7.3% and 8.0% increase in the probability of casting a tactical vote in England, Scotland, and Wales, respectively. Additionally, contact by the most preferred viable party led to a reduction of 2.1% in the probability of abstaining in England (but no effects in Scotland or Wales). Finally, the results for contact by the least preferred party from among the viable ones shows a reduction in the probability of abstaining in both Scotland and Wales (but not England) of 4.4% and 2.9%, respectively (although the effect in Wales is only significant at the 10% level). Additionally, contact by the least preferred party only had an impact on tactical voting in Scotland, increasing the probability of a tactical vote by 6.3% there, which is in line with the findings for 2015.

Figure 4 (and Appendix Table A3) present the results for the 2019 General Election. The results show similar patterns to 2015 and 2017, although with some differences as well. Contact by the most preferred party is associated with an reduction in abstentions of 2.9% in England and 5.3% in Wales (although not significant). Additionally, it is associated with a 7.3% reduction in the probability of a tactical in England, and an 8.1% reduction in Wales; the effect for Scotland is smaller and not statistically significant.

Figure 4: 2019 Election



All values are average partial effects. Standard errors are clustered at the constituency level. 'Contact First' is the index of contact by the voter's most preferred party, 'Contact Viable' by the most preferred party out of the viable ones, 'Contact Least' by the least preferred party out of the viable ones.

On the other hand, contact by the most preferred viable party is associated with a higher chance of tactical behavior in all three countries. The increase is 8.4% in both England and Scotland, and 6.1% in Wales. Additionally, only in England does contact by the most preferred party reduce the level of abstentions, in this case by 3.2%. Finally, contact by the least preferred party does not influence tactical behavior nor abstentions, with the exception of a 1.5% reduction in abstentions in England.

Overall, party contacts, the direct outreach portion of campaigns, show significant impacts in the probability that voters will cast a tactical vote, among those voters who are in a position to do so because their most preferred party can be considered to be out of the race. There is evidence across the 2015, 2017, and 2019 General Elections in England, Scotland, and Wales that outreach by the most preferred party deters voters from casting a tactical vote, thus remaining loyal to their most preferred party. The results also show that contact by the most preferred viable party increases the chances that a voter will cast a tactical vote, thus encouraging defection from the most preferred party.

The average marginal effects presented here do not show any side having the upper hand; that is. there is no clear winner when encouraging loyalty or defection among voters who are in a position to cast a tactical vote (however, differences in the intensity and range with which contacts are pursued by the different sides do produce differences, see Section 4.4). While the effects for 2015 in all three countries show that the most preferred party has a slight edge over the most preferred viable party, these differences are not large enough to reach statistical significance. Moreover, this pattern reverses in 2017, again without statistical significance. The results for 2019 look more like those for 2015 for England and Scotland, but not for Wales. Nonetheless, none of these comparisons yield any statistically significant differences.

These impacts of party contacts on the probability of casting tactical votes occurs mainly at the expense (or favor) of non-tactical votes: the impact of party contacts on abstentions is limited, although present in several cases. These effects on abstention may be understated, however, as there is evidence that the BES oversamples voters and respondents also tend to

overreport their own turnout (Mellon and Prosser, 2017).

4.3 Heterogeneity By Party

The results presented in Section 4.2 pool voters all voters in a position to cast a tactical vote together. However, voters studying these effects by party instead is interesting for two reasons. First, voters with a different most preferred party may have unobserved differences in behavior that are relevant in the study. As an example, a Labour supporter may be more reluctant than a Liberal-Democrat supporter simply because the Labour supporter has found herself less often in the position to cast a tactical vote. Studying the effects separately by party allow for these differences to emerge. Additionally, the parties themselves maybe pursue different strategies, either by choice or due to different resource limitations.

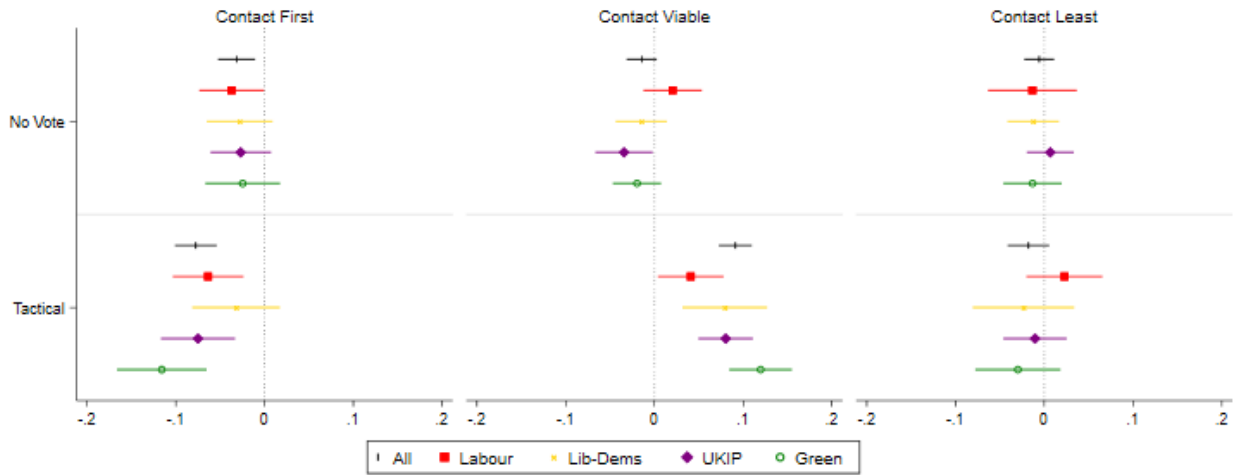
In this subsection, I estimate the same model as in equation 3, but for different subsamples, depending on the voters' most preferred party. Unfortunately, for some subsamples there is not sufficient data to produce the required estimates, due to convergence issues. For this reason, there are no estimates by party for Wales in any election, nor for Scotland in 2015. Other exceptions will be noted below.

Figure 5 present the results for England by party for the 2015 General Election. It should be noted here that due to the small sample size of Conservative supporters who are in a position to cast a tactical vote, there is no estimate for them. For the other parties, there is some heterogeneity in the effects, although the differences are not particularly noteworthy. The overall pattern seems to suggest, however, that contact by the most preferred and most preferred viable parties has a stronger impact in the less established parties, UKIP and Green, than among Labour and the Liberal Democrats.

Figure 6 shows the results for England in the 2017 General Election.¹³ In this case, the effects for most parties are comparable. The two noteworthy exceptions are that contact by the most preferred party among UKIP supporters does not seem to impact tactical voting in any way,

¹³Effects for Conservative supporters were not estimated due to data limitations producing convergence issues in the estimation algorithm.

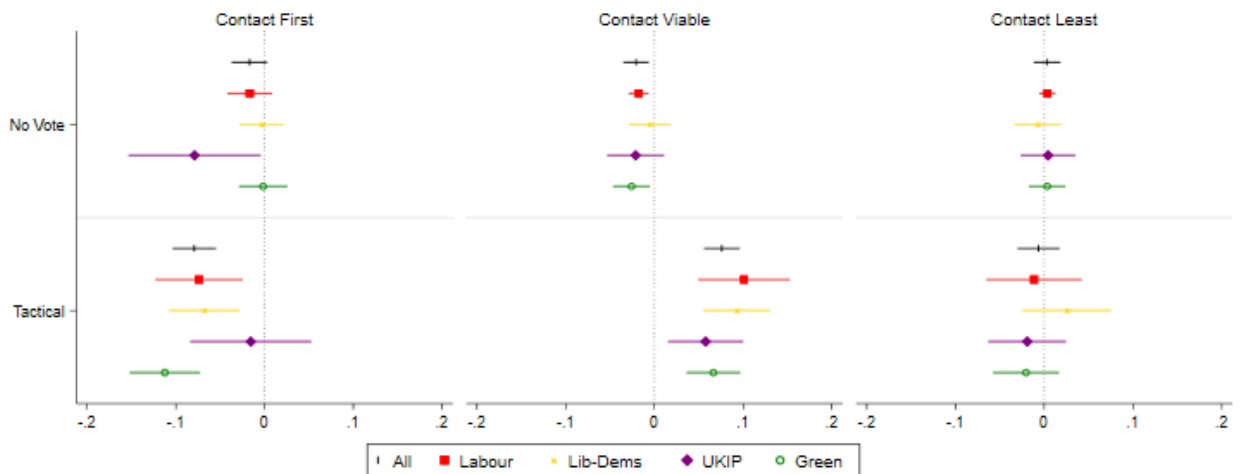
Figure 5: 2015 Election - England by Party



Estimates come from equation 3 estimated for different subsets of voters defined by their most-preferred party. 'All' refers to the pooled estimate presented in section 4.2. Estimates for Conservative supporters not included due to sample limitations.

while contact by the most preferred party among Green party supporters leads to a somewhat larger reduction in tactical voting than it does for the other groups of voters. Additionally, contact by UKIP among UKIP supporters leads to a much stronger reduction in abstentions than among any other group of voters.

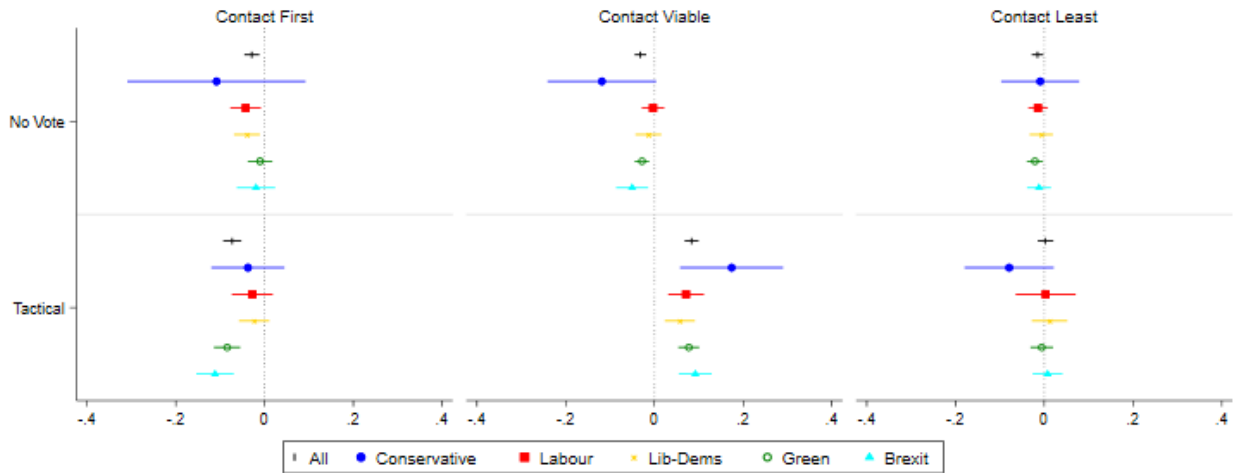
Figure 6: 2017 Election - England by Party



Estimates come from equation 3 estimated for different subsets of voters defined by their most-preferred party. 'All' refers to the pooled estimate presented in section 4.2. Estimates for Conservative supporters not included due to sample limitations.

Figure 7 shows the estimates by party for England during the 2019 General Election. Note that estimates include the Brexit Party instead of UKIP. Additionally, unlike for 2015 and 2017, estimates for the Conservative party are available in this case (although with very large uncertainty). The results are somewhat different from the previous two elections. Contact by the most preferred party does not seem to impact the degree of tactical voting among supporters of the more established parties, Conservatives, Labour, and Liberal Democrats. Instead, most of the impact of contact by the most preferred party comes from supporters of the Green and Brexit parties. The impact of contact by the most preferred viable party seems similar across the different groups of voters, with perhaps the exception of the Conservatives, although the uncertainty is very large to make a good assessment.

Figure 7: 2019 Election - England by Party



Estimates come from equation 3 estimated for different subsets of voters defined by their most-preferred party. ‘All’ refers to the pooled estimate presented in section 4.2.

The results for Scotland are included in Appendix A.3. The results are generally not very informative due to rather wide confidence intervals. As previously mentioned, results by party for Wales are not possible due to the small number of observations overall preventing the model estimates from converging in most cases.

4.4 Counterfactual

The average partial effects presented in Sections 4.2 and 4.3 can only present an incomplete picture of the impact of voting party contacts on tactical voting, as they only measure the impact of contact, but do not consider that parties may be contacting vastly different number of voters. As such, a very large average marginal effect for a party that contacts very few voters may end up mattering just as much in overall election results as a small average marginal effect for a party that contact a very large number of voters.

For this reason, I conduct a series of four simple partial counterfactual exercises. The first counterfactual assumes that every voter’s most preferred party does not contact them (‘No First’). The second one assumes that every voter’s most preferred viable party does not contact them (‘No Viable’). The third one assumes that every voter’s least preferred viable party does not contact them (‘No Least’). Finally, the fourth counterfactual assumes that none of these three parties contact the voters. All these counterfactuals are compared to the in-sample proportion of abstentions, tactical, and non-tactical votes. Whenever possible, the counterfactuals are obtained by relying on the party results to capture that potential heterogeneity; otherwise, the country-level model is used.¹⁴¹⁵

It is important to note here that these counterfactual are only *partial* counterfactuals, in the sense that the change in the behavior of certain agents (ie., the parties) is assumed not to generate any kind of strategic change in behavior from other agents (the other parties). For example, when calculating the counterfactual for that the most preferred party does not contact any voters, it is assumed that the most preferred viable party for each voter continues to behave as observed in-sample. This is of course unlikely to occur in reality, as parties are, to some extent, expected to react to each other’s actions. However, these partial counterfactuals do

¹⁴For England in 2015 and 2017, the Conservative model is supplanted with the overall model for England and Scotland. It is possible that the Conservative model (if it could be estimated) would produce different results. However, the impact in overall results would be rather small due to the relatively small number of Conservative supporters who are in a position to cast a tactical vote in England.

¹⁵It should also be noted that the counterfactuals are not substantively different if one relies on the overall country model for England rather than the party-by-party model. This suggests that the replacement of the Conservative estimates (unavailable) with the country estimates should not have a large impact anyway.

allow a better understanding of the magnitudes of the impact of party behavior on tactical voting (even if out of equilibrium).

Figure 8 presents the four counterfactuals for England in the three elections, where each column represents an election year and each row corresponds to a different counterfactual. In all cases, the counterfactuals show the difference between the levels of abstentions, tactical, and non-tactical votes as observed in-sample relative to the counterfactual. The results for England make clear that the most preferred and most preferred viable parties are the ones that really impact tactical voting, and that the least preferred viable party barely does (mainly due to the almost zero average marginal effect in most cases, but to some extent due to lower number of contacts).

The counterfactual results, however, present some interesting nuances that the average marginal effects do not (and cannot) capture. In all cases, the overall impact (measured by the counterfactual) of contact by the most preferred viable party is larger than the overall impact of the most preferred (non viable) party.¹⁶ Focusing on tactical voting, the overall contacts conducted by most preferred parties on their supporters lead to reductions of 4.0%, 2.6%, and 2.0% in the overall levels of tactical voting in 2015, 2015, and 2019, respectively. On the other than, contact by most preferred viable parties lead to increases in the level of tactical voting of 6.5%, 4.4%, and 4.3% in the 2015, 2017, and 2019 General Elections, respectively. The final counterfactual confirms this, showing that lack of contact by any of the parties on those voters who are in a position to cast a tactical vote would have led to a situation in which tactical voting would have been 2.7% lower in 2015, 1.6% lower in 2017, and 2.3% lower in 2019. In all three elections, this higher level of tactical voting would have come associated with an increase in abstentions of 2.5%, 1.2%, and 2.4%, respectively.¹⁷

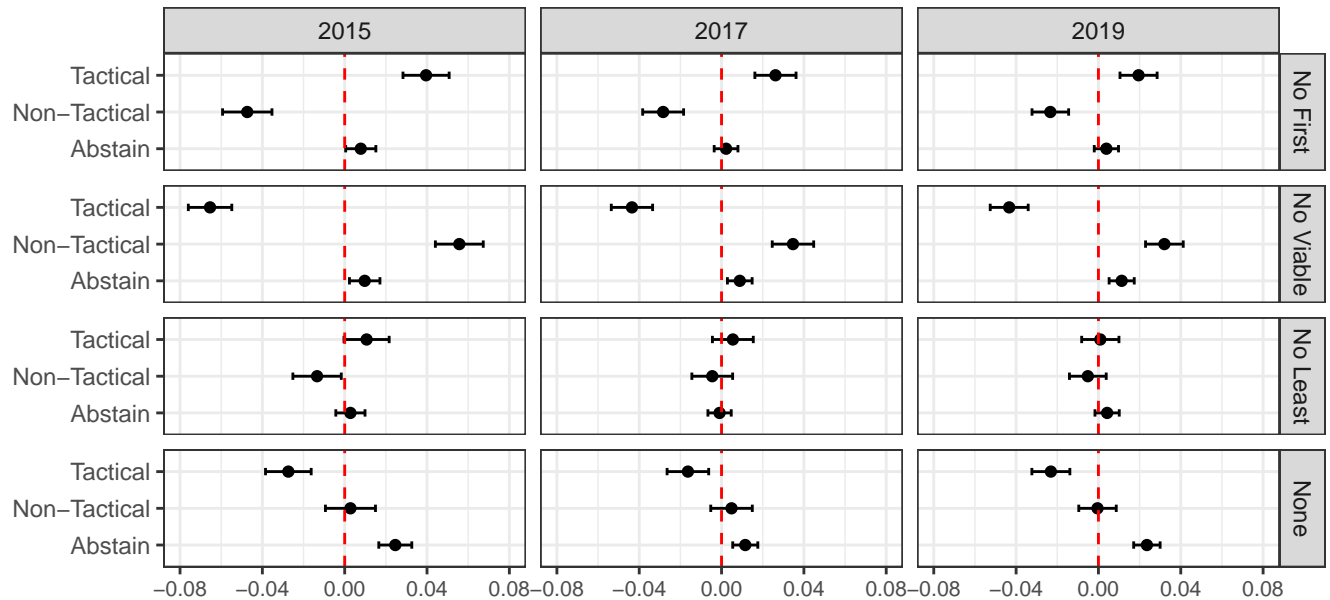
The counterfactuals for Scotland are presented in Figure 9.¹⁸ The first thing to notice

¹⁶This is despite the average marginal effects providing different pictures in different elections.

¹⁷Please note that this does not mean that voters move from voting tactical to not voting. Rather some voters move from tactical to non-tactical, others from non-tactical to abstaining, etc. This counterfactual only shows the net of these different effects.

¹⁸Note that the 2015 estimates come from the pooled model. For 2017, results for the UKIP come from the pooled Scottish model, but all others from the party models. For 2019, all estimates come from the party models; there is no SNP estimate due to the party being viable in all Scottish constituencies.

Figure 8: No Contact Counterfactuals for England



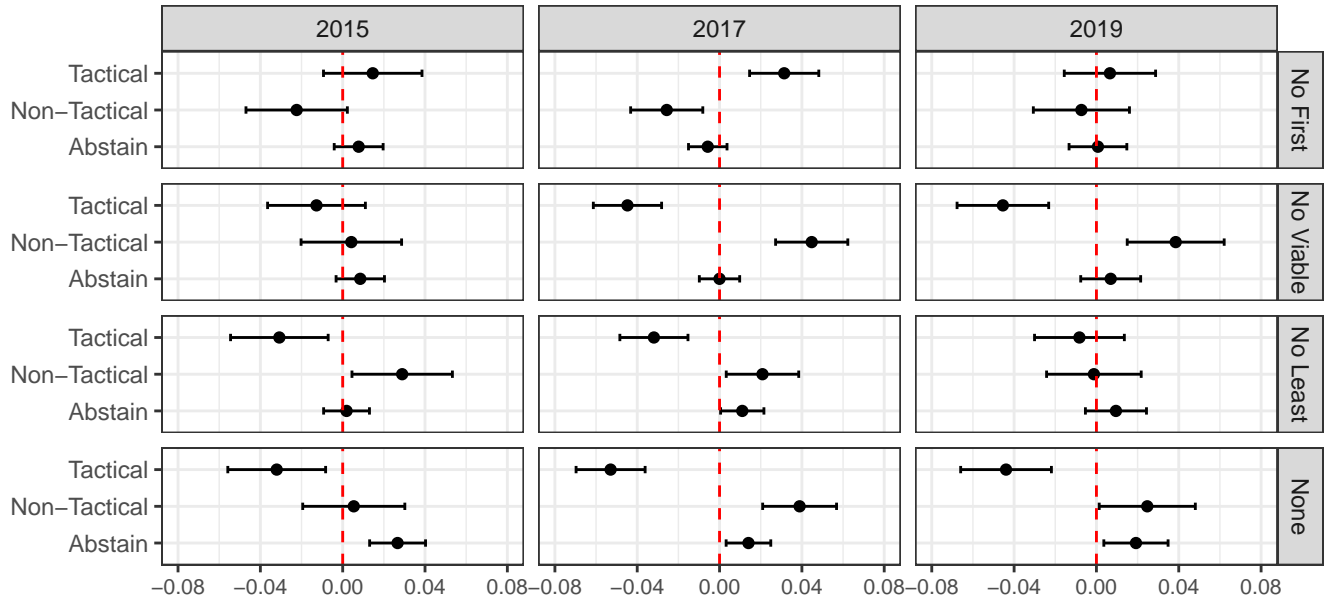
‘No First’ refers to the counterfactual in which the most preferred parties for each voter do not contact them; *‘No Viable’* the case in which the most preferred viable parties does not contact voters; *‘No Least’* the case in which the least preferred viable party does not contact voters; and *‘None’* the case in which neither of these three parties contact any voters.

relative to the English estimates is that there is a larger degree of uncertainty. This is due for two reasons: the higher uncertainty in the average marginal effects estimates for Scotland and the smaller overall size of the average partial effects in Scotland as well. Partly due to this, there are many fewer statistically significant counterfactuals in Scotland than there are in England.

The counterfactuals for the 2017 election in Scotland look similar to those from England. Contact by the most preferred party producing a reduction in tactical voting of 3.1%, while contact by the most preferred viable party led to a increase in tactical voting of 4.5%, thus more than compensating the efforts of the most preferred party, just as in England. Overall, contact efforts by all parties in 2017 lead to a 5.3% higher chance of a tactical vote, with part of this increase due to a reduction of 1.4% in abstentions.

For the 2015 election in Scotland, neither contact by the most preferred party nor the most preferred viable party show a statistically significant impact on voting behavior, although the least preferred viable party does. The overall impact of party contacts was an increase of 3.2%

Figure 9: No Contact Counterfactuals for Scotland



‘No First’ refers to the counterfactual in which the most preferred parties for each voter do not contact them; *‘No Viable’* the case in which the most preferred viable parties does not contact voters; *‘No Least’* the case in which the least preferred viable party does not contact voters; and *‘None’* the case in which neither of these three parties contact any voters.

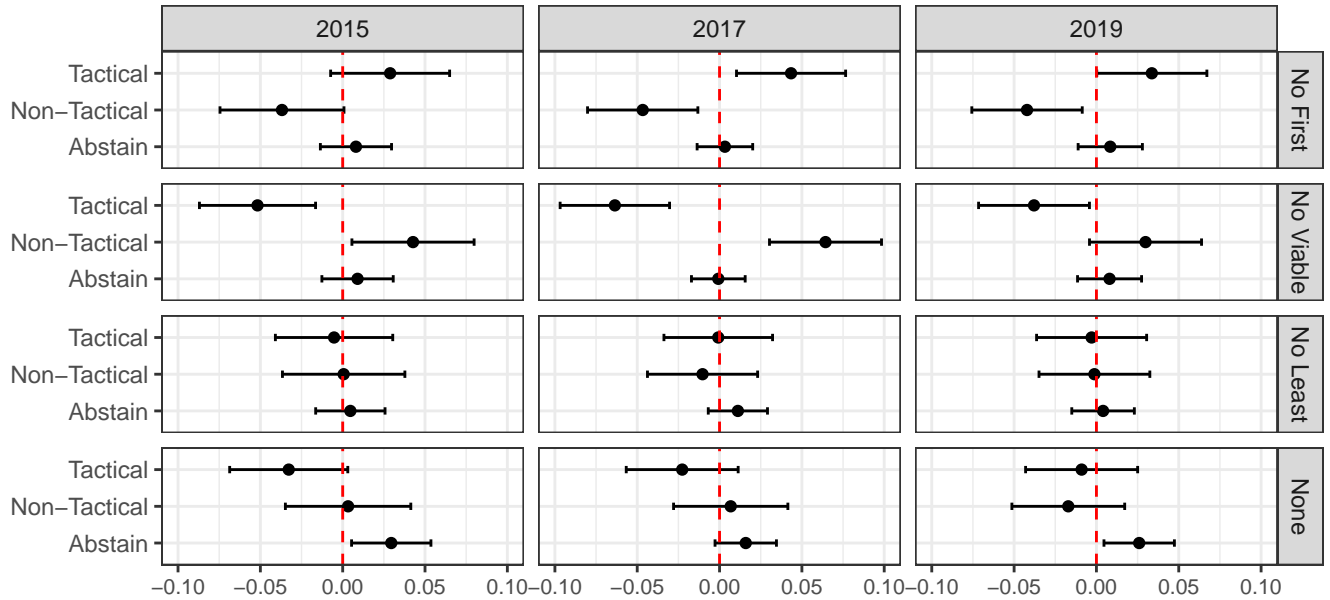
in tactical voting at the expense of abstentions (mostly driven by reactions to the least preferred parties).

Finally, for the 2019 election in Scotland, contact by the most preferred party and the least preferred viable party do not have much of an impact on vote behavior. However, contact by the most preferred viable party does: it leads to an increase of 4.5% in tactical voting, mostly due to a reduction in non-tactical voting. Overall, contact by all the parties during the 2019 election led to a 4.4% higher tactical voting explained by a 1.9% reduction in abstentions and a 2.5% reduction in non-tactical voting behavior.

The counterfactuals for Wales are presented in Figure 10.¹⁹ The results from Wales are very similar to those from England in both direction, magnitudes, and relative sizes. However, the results for Wales show very few statistically significant counterfactuals due to higher levels of uncertainty. There is one main difference with England, however for the 2019 election. In that

¹⁹All these estimates come from the pooled model, as there is not enough data to conduct estimations party-by-party for most parties in all elections in Wales.

Figure 10: No Contact Counterfactuals for Wales



‘No First’ refers to the counterfactual in which the most preferred parties for each voter do not contact them; *‘No Viable’* the case in which the most preferred viable parties does not contact voters; *‘No Least’* the case in which the least preferred viable party does not contact voters; and *‘None’* the case in which neither of these three parties contact any voters.

election, the increase in tactical voting by the most preferred party viable is almost perfectly compensated by the reduction in tactical voting by the most preferred party, such that the overall counterfactual of no contact shows no increase nor reduction in tactical voting for Wales in 2019.

Overall, the counterfactuals show that contact by the different parties has a significant impact in the levels of tactical voting. Typically, the impact of contact by the most preferred party is weaker than the impact of contact by the most preferred viable party, such that overall, party contacts tend to produce more defections from the preferred party and thus more tactical voting. However, in many cases, this increase in tactical voting does not come necessarily at the expense of non-tactical (or sincere) voting. Rather, in the overall counterfactuals, these higher levels of tactical voting tend to be accompanied by a reduction in the percentage of abstentions.

5 Conclusion

While there is a relatively rich literature on tactical voting, a very significant portion of this literature devotes itself to measuring its extent, which of course vital as it establishes the relevancy of studying it. Somewhat less attention has been paid, however, to the factors that may influence voters to behave tactically or not. In particular, most of what is known about correlates of tactical voting behavior relates to voters' demographic characteristics and constituency characteristics.

Little is known, however, about the impact of actionable factors on voters' decisions to cast a tactical vote. In this article, I study the impact of one such factor: voter outreach by the parties in the form of direct contacts by different means. While these types of campaign effects have been studied before in the campaign literature in the United Kingdom, it has not been focused explicitly on tactical behavior.

I find that party contact efforts have an impact in voters' decision to cast a tactical vote. Contact by a voter's most preferred party generally leads to a smaller propensity of that voter to cast a tactical vote, thus remaining loyal to their first preference. Contact by a voter's most preferred viable party, on the other hand, typically increases the chances that a voter will cast a tactical vote, thus defecting their most preferred party. In these cases, the changes in tactical voting are mostly accompanied by a corresponding change in non-tactical votes. Contact by the least preferred viable party, however, do not seem to have much of an impact on tactical voting (except in some specific instances). Overall, contact by these three groups of parties typically leads to a reduction in abstentions. These patterns are relatively similar across the three constituent countries and election years, although the Scottish results tend to show less of an impact. While it is not possible to conduct separate analyses by party for all cases, the estimates that were possible show that the impact of party contact on tactical voting tends to be similar across parties, with the caveat that the more established parties (Labour, Conservatives, Liberal Democrats) seem to have a somewhat smaller impact than the less established ones.

There is no clear evidence indicating that viable parties are more effective at encouraging

defections preferred parties than most preferred parties are at encouraging loyal to them at the individual voter level. That is, there is no clear pattern in the average partial effects of party contacts that lead to this conclusion. However, a comparison of the degree of tactical voting observed in-sample relative to the counterfactual that no contacts are conducted does show that, overall, most preferred viable parties have an overall edge over the most preferred (but non-viable) parties. That is, overall, party contacts lead to higher levels of tactical voting. In the battle for loyalty or defection of voters whose most preferred party is out of the race, defection carries the day.

It is important to compare the effects of party contacts on voter behavior obtained here, which concentrate exclusively on voters whose most preferred party is not viable, to estimates of party contacts on the overall population of voters. Using similar counterfactual exercises, ? shows that party contacts tend to increase a parties vote share usually between 2% and 3% in most cases (with very few instances higher than that). The counterfactuals presented here show a higher impact of party contacts on voter behavior: the contacts conducted by the most preferred party typically resulted in around 4% lower incidence of tactical voting, whereas contacts by the most preferred viable parties typically resulted in an even higher increase in the incidence of tactical voting. This higher impact of party contacts on voters whose most preferred party is out of the race makes sense for two reasons: these voters are more marginal voters than those with preferences for a party that is viable in their constituency.

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Appendix A Additional Tables

A.1 Average Partial Effects by Country

Table A1: APEs by Country – 2015

	(1)	(2)	(3)	(4)	(5)	(6)
	England	Scotland	Wales	England	Scotland	Wales
	Tactical			Abstain		
Contact First	-0.077*** [-6.45]	-0.015 [-0.68]	-0.051 [-1.47]	-0.032** [-2.97]	-0.059* [-2.09]	-0.050 [-1.03]
Contact Viable	0.091*** [9.60]	0.023 [1.27]	0.068* [2.10]	-0.014 [-1.65]	-0.022 [-1.45]	-0.015 [-0.71]
Contact Least	-0.018 [-1.50]	0.047* [2.55]	0.019 [0.61]	-0.006 [-0.67]	-0.007 [-0.46]	-0.026 [-1.28]

t statistics in brackets

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A2: APEs by Country – 2017

	(1)	(2)	(3)	(4)	(5)	(6)
	England	Scotland	Wales	England	Scotland	Wales
	Tactical			Abstain		
Contact First	-0.079*** [-6.32]	-0.076** [-3.06]	-0.086*** [-4.01]	-0.017 [-1.64]	0.011 [0.70]	-0.014 [-1.24]
Contact Viable	0.076*** [7.38]	0.073*** [4.09]	0.080*** [4.35]	-0.021** [-2.81]	-0.007 [-0.69]	0.004 [0.41]
Contact Least	-0.006 [-0.53]	0.063* [2.31]	0.006 [0.20]	0.003 [0.41]	-0.044** [-2.88]	-0.029 [-1.79]

t statistics in brackets

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3: APEs by Country – 2019

	(1)	(2)	(3)	(4)	(5)	(6)
	England	Scotland	Wales	England	Scotland	Wales
	Tactical			Abstain		
Contact First	-0.073*** [-6.95]	-0.024 [-1.12]	-0.081* [-2.14]	-0.029*** [-3.29]	-0.002 [-0.20]	-0.053 [-1.38]
Contact Viable	0.084*** [10.27]	0.084*** [4.26]	0.061* [2.00]	-0.032*** [-4.76]	-0.017 [-1.35]	-0.024 [-1.09]
Contact Least	0.003 [0.32]	0.026 [1.26]	0.007 [0.24]	-0.015* [-2.30]	-0.026 [-1.44]	-0.016 [-0.74]

t statistics in brackets

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.2 Average Partial Effects by Party

A.2.1 England

Table A4: APEs by Party in England – 2015

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Lab	LD	UKIP	Grn	Lab	LD	UKIP	Grn
	Tactical				Abstain			
Contact First	-0.06** [-3.14]	-0.03 [-1.27]	-0.07*** [-3.53]	-0.12*** [-4.50]	-0.04* [-1.99]	-0.03 [-1.49]	-0.03 [-1.54]	-0.02 [-1.15]
Contact Viable	0.04* [2.17]	0.08** [3.26]	0.08*** [5.13]	0.12*** [6.65]	0.02 [1.22]	-0.01 [-1.00]	-0.03* [-2.08]	-0.02 [-1.41]
Contact Least	0.02 [1.04]	-0.02 [-0.80]	-0.01 [-0.57]	-0.03 [-1.22]	-0.01 [-0.52]	-0.01 [-0.84]	0.01 [0.50]	-0.01 [-0.79]

t statistics in brackets

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A5: APEs by Party in England – 2017

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Lab	LD	UKIP	Grn	Lab	LD	UKIP	Grn
	Tactical				Abstain			
Contact First	-0.07**	-0.07***	-0.02	-0.11***	-0.02	-0.00	-0.08*	-0.00
	[-2.93]	[-3.36]	[-0.44]	[-5.55]	[-1.30]	[-0.26]	[-2.07]	[-0.11]
Contact Viable	0.10***	0.09***	0.06**	0.07***	-0.02**	-0.01	-0.02	-0.03*
	[3.84]	[4.84]	[2.67]	[4.29]	[-3.08]	[-0.44]	[-1.29]	[-2.44]
Contact Least	-0.01	0.03	-0.02	-0.02	0.00	-0.01	0.00	0.00
	[-0.42]	[1.00]	[-0.86]	[-1.09]	[0.74]	[-0.57]	[0.27]	[0.31]

t statistics in brackets

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A6: APEs by Party in England – 2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Con	Lab	LD	Grn	Bxt	Con	Lab	LD	Grn	Bxt
	Tactical					Abstain				
Contact First	-0.04	-0.03	-0.02	-0.08***	-0.11***	-0.11	-0.04*	-0.04**	-0.01	-0.02
	[-0.89]	[-1.17]	[-1.34]	[-5.56]	[-5.17]	[-1.06]	[-2.42]	[-2.66]	[-0.72]	[-0.87]
Contact Viable	0.17**	0.07***	0.06***	0.08***	0.09***	-0.12	-0.00	-0.01	-0.03***	-0.05*
	[2.94]	[3.47]	[3.30]	[6.50]	[4.87]	[-1.89]	[-0.23]	[-0.92]	[-3.36]	[-2.71]
Contact Least	-0.08	0.00	0.01	-0.01	0.01	-0.01	-0.01	-0.01	-0.02*	-0.01
	[-1.55]	[0.09]	[0.58]	[-0.45]	[0.42]	[-0.20]	[-1.27]	[-0.53]	[-2.31]	[-0.87]

t statistics in brackets

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.2.2 Scotland

Results by party for Scotland are not produced for 2015 due to the small sample size preventing convergence of estimation.

Table A7: APEs by Party in Scotland – 2017

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Con	Lab	LD	Grn	Con	Lab	LD	Grn
	Tactical				Abstain			
Contact First	-0.01 [-0.37]	-0.06** [-2.80]	-0.14*** [-3.34]	-0.12 [-1.80]	-0.00 [-0.30]	0.01 [0.54]	0.04 [1.84]	-0.01 [-0.27]
Contact Viable	0.03 [1.23]	0.08* [2.24]	0.09 [1.69]	0.08* [2.06]	-0.03 [-1.43]	-0.00 [-0.31]	0.01 [0.46]	-0.01 [-0.62]
Contact Least	0.04 [0.67]	0.06 [1.66]	0.08 [1.05]	0.09 [1.86]	-0.03* [-2.21]	-0.06 [-1.88]	-0.05 [-1.70]	-0.01 [-0.54]

t statistics in brackets

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A8: APEs by Party in Scotland – 2019

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Con	Lab	LD	Grn	Bxt	Con	Lab	LD	Grn	Bxt
	Tactical					Abstain				
Contact First	-0.02 [-0.67]	-0.08*** [-3.30]	0.02 [0.55]	0.01 [0.11]	-0.12 [-1.90]	-0.00 [-0.17]	-0.01 [-1.00]	0.00 [0.14]	0.04 [1.84]	-0.01 [-0.09]
Contact Viable	0.07** [2.81]	0.10 [1.84]	0.05 [1.33]	0.14*** [3.43]	0.02 [0.50]	-0.03 [-1.15]	-0.03 [-1.31]	0.01 [0.25]	-0.06 [-1.44]	0.00 [0.01]
Contact Least	0.04 [0.98]	0.10 [1.82]	0.04 [0.78]	-0.05 [-0.86]	0.05 [0.96]	0.03 [1.21]	0.01 [0.95]	-0.09* [-2.55]	-0.07 [-1.21]	0.01 [0.30]

t statistics in brackets

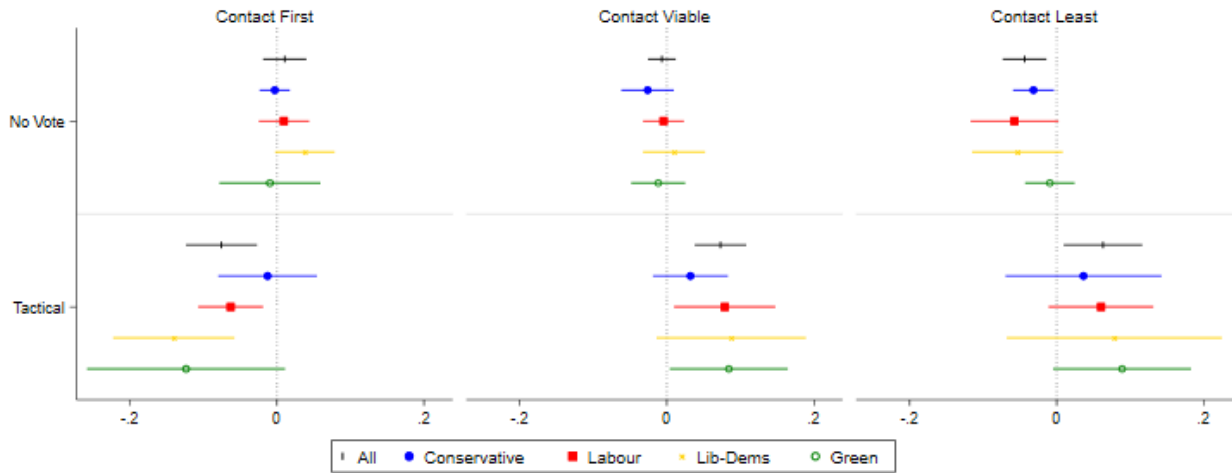
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A.2.3 Wales

Results for Wales by party were not produced for any election due to small sample size preventing convergence of estimation for most parties/years.

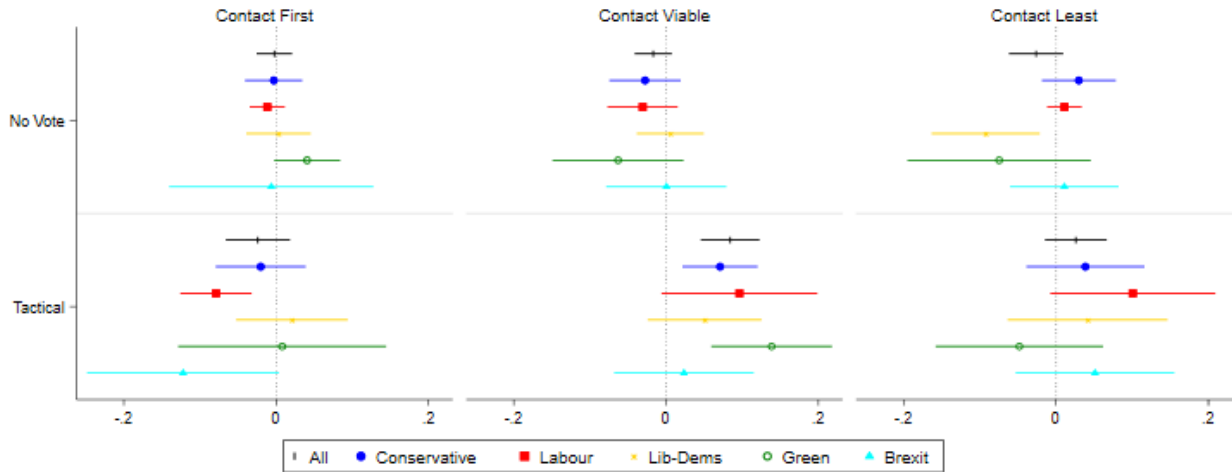
A.3 Scottish Results by Party

Figure A1: 2017 Election - Scotland by Party



footnote here

Figure A2: 2019 Election - Scotland by Party



footnote here

A.4 Tables with Counterfactual Results

Table A9: England Counterfactuals

year	counter	outcome	original	perc	diff	lower	upper
2015	No First	Abstain	0.074	0.082	0.008	0.000	0.015
2015	No First	Non-Tactical	0.632	0.585	-0.047	-0.059	-0.035
2015	No First	Tactical	0.294	0.333	0.040	0.028	0.051
2015	No Viable	Abstain	0.074	0.084	0.010	0.002	0.017
2015	No Viable	Non-Tactical	0.632	0.688	0.056	0.044	0.067
2015	No Viable	Tactical	0.294	0.228	-0.065	-0.076	-0.055
2015	No Least	Abstain	0.074	0.077	0.003	-0.004	0.010
2015	No Least	Non-Tactical	0.632	0.619	-0.013	-0.025	-0.002
2015	No Least	Tactical	0.294	0.304	0.011	-0.000	0.022
2015	None	Abstain	0.074	0.099	0.025	0.017	0.033
2015	None	Non-Tactical	0.632	0.635	0.003	-0.009	0.015
2015	None	Tactical	0.294	0.266	-0.027	-0.038	-0.016
2017	No First	Abstain	0.073	0.075	0.002	-0.004	0.008
2017	No First	Non-Tactical	0.415	0.387	-0.028	-0.038	-0.018
2017	No First	Tactical	0.512	0.538	0.026	0.016	0.036
2017	No Viable	Abstain	0.073	0.082	0.009	0.003	0.015
2017	No Viable	Non-Tactical	0.415	0.450	0.035	0.025	0.045
2017	No Viable	Tactical	0.512	0.468	-0.044	-0.054	-0.033
2017	No Least	Abstain	0.073	0.072	-0.001	-0.007	0.005
2017	No Least	Non-Tactical	0.415	0.410	-0.005	-0.014	0.005
2017	No Least	Tactical	0.512	0.517	0.005	-0.004	0.015
2017	None	Abstain	0.073	0.085	0.012	0.005	0.018
2017	None	Non-Tactical	0.415	0.420	0.005	-0.005	0.015
2017	None	Tactical	0.512	0.495	-0.016	-0.026	-0.006
2019	No First	Abstain	0.092	0.096	0.004	-0.002	0.010
2019	No First	Non-Tactical	0.379	0.356	-0.023	-0.032	-0.014
2019	No First	Tactical	0.529	0.548	0.020	0.010	0.029
2019	No Viable	Abstain	0.092	0.103	0.011	0.005	0.017
2019	No Viable	Non-Tactical	0.379	0.411	0.032	0.023	0.041
2019	No Viable	Tactical	0.529	0.485	-0.043	-0.053	-0.034
2019	No Least	Abstain	0.092	0.096	0.004	-0.002	0.010
2019	No Least	Non-Tactical	0.379	0.374	-0.005	-0.014	0.004
2019	No Least	Tactical	0.529	0.530	0.001	-0.008	0.010
2019	None	Abstain	0.092	0.116	0.024	0.017	0.030
2019	None	Non-Tactical	0.379	0.379	-0.000	-0.010	0.009
2019	None	Tactical	0.529	0.506	-0.023	-0.032	-0.014

Table A10: Scotland Counterfactuals

year	counter	outcome	original	perc	diff	lower	upper
2015	No First	Abstain	0.050	0.058	0.008	-0.004	0.020
2015	No First	Non-Tactical	0.541	0.518	-0.022	-0.047	0.002
2015	No First	Tactical	0.409	0.424	0.015	-0.009	0.039
2015	No Viable	Abstain	0.050	0.059	0.009	-0.003	0.020
2015	No Viable	Non-Tactical	0.541	0.545	0.004	-0.020	0.029
2015	No Viable	Tactical	0.409	0.396	-0.013	-0.036	0.011
2015	No Least	Abstain	0.050	0.052	0.002	-0.009	0.013
2015	No Least	Non-Tactical	0.541	0.570	0.029	0.005	0.053
2015	No Least	Tactical	0.409	0.378	-0.031	-0.054	-0.007
2015	None	Abstain	0.050	0.077	0.027	0.013	0.040
2015	None	Non-Tactical	0.541	0.546	0.005	-0.019	0.030
2015	None	Tactical	0.409	0.377	-0.032	-0.056	-0.008
2017	No First	Abstain	0.062	0.056	-0.006	-0.015	0.004
2017	No First	Non-Tactical	0.611	0.585	-0.026	-0.043	-0.008
2017	No First	Tactical	0.328	0.359	0.031	0.015	0.048
2017	No Viable	Abstain	0.062	0.062	-0.000	-0.010	0.010
2017	No Viable	Non-Tactical	0.611	0.655	0.045	0.027	0.062
2017	No Viable	Tactical	0.328	0.283	-0.045	-0.061	-0.028
2017	No Least	Abstain	0.062	0.073	0.011	0.001	0.022
2017	No Least	Non-Tactical	0.611	0.631	0.021	0.003	0.038
2017	No Least	Tactical	0.328	0.296	-0.032	-0.048	-0.015
2017	None	Abstain	0.062	0.076	0.014	0.003	0.025
2017	None	Non-Tactical	0.611	0.649	0.039	0.021	0.057
2017	None	Tactical	0.328	0.275	-0.053	-0.070	-0.036
2019	No First	Abstain	0.079	0.080	0.001	-0.013	0.015
2019	No First	Non-Tactical	0.537	0.530	-0.007	-0.031	0.016
2019	No First	Tactical	0.384	0.390	0.007	-0.016	0.029
2019	No Viable	Abstain	0.079	0.086	0.007	-0.008	0.021
2019	No Viable	Non-Tactical	0.537	0.576	0.039	0.015	0.062
2019	No Viable	Tactical	0.384	0.338	-0.045	-0.068	-0.023
2019	No Least	Abstain	0.079	0.089	0.009	-0.005	0.024
2019	No Least	Non-Tactical	0.537	0.536	-0.001	-0.024	0.022
2019	No Least	Tactical	0.384	0.375	-0.008	-0.030	0.014
2019	None	Abstain	0.079	0.099	0.019	0.004	0.035
2019	None	Non-Tactical	0.537	0.562	0.025	0.001	0.048
2019	None	Tactical	0.384	0.340	-0.044	-0.066	-0.022

Table A11: Wales Counterfactuals

year	counter	outcome	original	perc	diff	lower	upper
2015	No First	Abstain	0.077	0.085	0.008	-0.014	0.030
2015	No First	Non-Tactical	0.569	0.532	-0.037	-0.075	0.001
2015	No First	Tactical	0.354	0.383	0.029	-0.007	0.065
2015	No Viable	Abstain	0.077	0.086	0.009	-0.013	0.031
2015	No Viable	Non-Tactical	0.569	0.612	0.043	0.006	0.080
2015	No Viable	Tactical	0.354	0.303	-0.052	-0.087	-0.016
2015	No Least	Abstain	0.077	0.081	0.005	-0.016	0.026
2015	No Least	Non-Tactical	0.569	0.569	0.001	-0.037	0.038
2015	No Least	Tactical	0.354	0.349	-0.005	-0.041	0.030
2015	None	Abstain	0.077	0.106	0.029	0.005	0.054
2015	None	Non-Tactical	0.569	0.572	0.003	-0.035	0.041
2015	None	Tactical	0.354	0.322	-0.033	-0.069	0.003
2017	No First	Abstain	0.050	0.053	0.003	-0.014	0.020
2017	No First	Non-Tactical	0.447	0.400	-0.047	-0.080	-0.013
2017	No First	Tactical	0.503	0.547	0.043	0.010	0.077
2017	No Viable	Abstain	0.050	0.049	-0.001	-0.017	0.016
2017	No Viable	Non-Tactical	0.447	0.511	0.064	0.030	0.098
2017	No Viable	Tactical	0.503	0.440	-0.064	-0.097	-0.030
2017	No Least	Abstain	0.050	0.061	0.011	-0.007	0.029
2017	No Least	Non-Tactical	0.447	0.436	-0.010	-0.044	0.023
2017	No Least	Tactical	0.503	0.502	-0.001	-0.034	0.032
2017	None	Abstain	0.050	0.066	0.016	-0.003	0.035
2017	None	Non-Tactical	0.447	0.453	0.007	-0.028	0.041
2017	None	Tactical	0.503	0.481	-0.023	-0.057	0.011
2019	No First	Abstain	0.072	0.080	0.008	-0.011	0.028
2019	No First	Non-Tactical	0.438	0.396	-0.042	-0.076	-0.009
2019	No First	Tactical	0.490	0.524	0.034	0.000	0.067
2019	No Viable	Abstain	0.072	0.080	0.008	-0.011	0.027
2019	No Viable	Non-Tactical	0.438	0.468	0.030	-0.004	0.064
2019	No Viable	Tactical	0.490	0.452	-0.038	-0.072	-0.004
2019	No Least	Abstain	0.072	0.076	0.004	-0.015	0.023
2019	No Least	Non-Tactical	0.438	0.437	-0.001	-0.035	0.032
2019	No Least	Tactical	0.490	0.487	-0.003	-0.036	0.030
2019	None	Abstain	0.072	0.098	0.026	0.005	0.047
2019	None	Non-Tactical	0.438	0.421	-0.017	-0.051	0.017
2019	None	Tactical	0.490	0.481	-0.009	-0.043	0.025