Evidence for the Irrelevance of Irrelevant Events*

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Abstract

The assumption that voters behave rationally has been challenged through studies suggesting that irrelevant events, such as natural disasters and sports results, change voting behavior. We match candidate-level election data from Irish general elections between 1922 and 2020 and local elections between 1942 and 2019 with games in the Gaelic football and hurling championships, the most popular sports in Ireland. Although Irish citizens are very passionate about sports, a difference-in-differences design does not suggest any relationship between match results of regional teams and political opinions. These findings contradict previous studies and hold when applying an ‘unexpected event during survey design’ approach to representative surveys conducted throughout two seasons. Our results contribute to the literature on retrospective voting and citizen competence.

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**Introduction and Motivation**

Do events irrelevant to politics, such as the results of sporting events, influence citizens’ assessments of government performance and voting behavior? The effective functioning of democracy fundamentally relies upon the ability of citizens to be considered and careful in the development of their political opinions, and ultimately in making voting decisions at election time. Many classic models in the political behavior literature similarly build from assumptions that citizens are rational in evaluating governments’ performance by rewarding or punishing incumbent governments and individual candidates based on relevant performance indicators and policy responses (e.g. Key, 1966; Fiorina, 1981). In particular, there is a large body of evidence illustrating that citizens reward governments for effective management of the economy and punish governments for negative economic performance (e.g. Lewis-Beck, 1988; Anderson, 2000). In this account, citizens can effectively update their views of governments based on relevant events.

However, an influential and highly-cited strand of recent literature sharply questions these assumptions. These studies seek to illustrate that voters are, in fact, significantly influenced in their evaluations by ‘irrelevant events’ for which governments and individual politicians cannot credibly be held responsible. Examples include natural disaster and shark attacks, weather events, lotteries, and irrelevant tax referenda at the local level (Achen and Bartels, 2002; 2016; Heersink et al., 2017; Bagues and Esteve-Volart, 2016; Sances, 2017). In addition, Healy et al. (2010) find that the results of college football games in the run-up to election day had a significant impact on state-wide and national election results by altering the personal sense of well-being and emotional state of voters depending on whether their team won or lost (see also Miller, 2013). These studies have received a lot of scholarly attention and media coverage, as the results are striking and may have crucial implications for the way elections and
democracies work. In turn, a series of dissenting studies contend that the original findings constitute false positives, despite employing well-constructed research designs and best social science practice (see Fowler and Montagnes, 2015a; Fowler and Montagnes, 2015b; Fowler and Hall, 2018; Busby and Druckman, 2018). For example, recent work on the political effects of natural disasters by Baccini and Leemann (2020) illustrates that voters are, in fact, capable of processing complex information and draw on personal experiences in a coherent manner when forming opinions.

To effectively interrogate the findings on irrelevant events and voting behavior, we require stronger evidence on the effects of such events in different contexts, particularly those with a distinct electoral system, as well as a different political and sporting culture.

We extend this literature by examining the effects of major sports results on political opinions and voting behavior in the Republic of Ireland. We argue Ireland constitutes a ‘best case’ setting to test for the effects of sports matches on political outcomes as it has particularly high rates of sporting attendance and reported interest in sports. In this paper, we test whether inter-county Gaelic football and hurling matches influence political opinions. Even though Gaelic football and hurling might not be very well known internationally, these sports are extremely popular in the country and deeply embedded in Irish social and cultural life (Rouse, 2015; Liston, 2015; Reilly and Collins, 2008). In addition, hurling and Gaelic football are entirely amateur sports associated with strong identification between supporters and their county team, due to both the close affiliation between players and the community, and the deeply embedded geographic basis of county team allegiances. These ties between supporters and their local team are therefore at least as strong as those between fans and NCAA football and basketball teams in the United States that the literature has previously focused upon.

1 For instance, Lenz (2012: 8) concludes that Healy et al.’s study on sports games and incumbency support “could describe the reality of democracies as being closer to the worst-case view.”
Using a novel dataset combining constituency-level data on the performance of candidates across all general elections between 1922 and 2020 and all local elections between 1942 and 2019 with sports results, we test whether elected politicians in counties that lose (or win) a match in the prestigious All-Ireland series a couple of days before an election suffer (or profit) from the outcome of the sports event. Almost all of these games were single-game knock-out matches, meaning that these games are important sporting events likely to induce strong emotional reactions among their large audiences (Healy et al., 2010).

Given that the regional teams correspond closely to electoral districts, we can assign games to constituencies. Overall, we find no evidence to support previous findings of the effects of irrelevant events. Wins or losses by the local county team do not influence vote shares for incumbents or politicians from government parties. We extend our analysis to consider whether the effects at the individual-level match the macro-level findings using an ‘unexpected event during survey design’ approach (Muñoz et al., 2020). The 2002 and 2007 Irish National Election Studies were fielded throughout the summer season of the national hurling and Gaelic football championship (Marsh and Sinnott, 2008). Leveraging information on the interview completion date along with the respondents’ counties of residence, we compare political opinions of respondents that answered the questionnaire in the week before and after important championship matches of their regional teams. Results of the local team do not affect respondents’ attitudes towards the Irish Prime Minister or opinions regarding the individual’s preferred political party.

Our findings illustrate that concerns about the incompetence of citizens and their capacity to effectively evaluate political performance and make rational voting decisions are likely overstated (Fowler and Montagnes, 2015a; Wuttke, 2019; Baccini and Leemann, 2020). Citizens opinions’ and voting behavior appear unaffected by irrelevant events such as the outcome of sports matches in sharp contrast to previous, high-profile findings from the United States.
The results also underline the importance of testing for the generalizability and robustness of surprising and positive findings when applied to other contexts and employing designs best suited to approximating causal effects.

**Argument and Expectations**

Why would sporting outcomes affect citizens’ and evaluations of elected candidates, candidates from government parties, or the incumbent government as a whole? In line with previous psychological findings, the prominent political science work builds on significant evidence that individuals’ mood and emotions influence their attitudes in entirely distinct domains (Healy et al., 2010). When an individual’s mood is good and sense of well-being is high, individuals tend to evaluate events and individuals more positively than when their mood is low (Isen et al., 1978; Forgas, 1995, 2000).

In elections, where the impact of any individual’s behavior is low (albeit the collective impact is high), individuals may lean on their feelings to guide them in forming a political opinion or deciding how to vote. Achen and Bartels (2016) argue that disengaged and uninformed citizens are especially likely to lean on their personal welfare and well-being as a guide on whether to reward or punish parties and politicians. In this sense, changes in individual welfare in retrospective voting models are difficult for citizens to assess objectively. Therefore, a broad positive or negative personal feeling about one’s own well-being serves as a guide as to how political leaders have performed. Individuals then form political attitudes and make voting decisions based upon this. Importantly though, there are a variety of events that can impact an individual’s mood or personal well-being that governments and individual politicians do not have responsibility for, or any control over.

We focus then on these ‘irrelevant events’, that is, events that affect individuals’ personal well-being for which political actors are not responsible and cannot control, and to which
voters should not respond (Healy et al., 2010; Graham et al., 2019). The literature assumes that these irrelevant events might affect the personal mood of individuals with consequences for political behavior. More precisely, individuals associate the event with better (worse) performance by the incumbent government and evaluate leaders more positively (negatively). This model of ‘blind retrospection’ consists of different categories of irrelevant events that can shape political opinions and voting behavior. These include anomalous weather events such as droughts and floods (Achen and Bartels, 2016; Heersink et al., 2017), lotteries (Huber et al., 2012; Bagues and Esteve-Volart, 2016), and a variety of sports results (Healy et al., 2010; Miller, 2013; Busby et al., 2016).

Sports results are particularly useful in testing for the effects of quasi-random irrelevant events for several reasons. First, sporting wins and losses have been demonstrated to influence individuals’ moods directly and through social network effects as individuals ‘bask in reflected glory’ from their teams’ victories (e.g. Cialdini et al., 1976; Schwarz et al., 1987; Knoll et al., 2014). There is therefore substantial scope for effects of sports results on political attitudes and behaviour through these mechanisms. Second, one cannot reasonably expect that the decisions of politicians have any plausible impact on the outcome of a match. Third, there is no reason for voters to weigh the government’s response to a sporting event when deciding how to vote as distinct from certain other types of quasi-random events. Following a natural disaster, for example, a government’s emergency management and/or lack of planning may be subject to criticism and voters may then factor in their evaluation of the governmental preparation for, and response to, the disaster when formulating their views. For a sporting win or loss, the government’s response will not be subject to any such scrutiny, especially in the immediate aftermath of the event. Therefore, any effect of sports results on political opinions, evaluations, and voting behavior will only operate through the impact of the game’s outcome itself on voters’ mood and well-being.
For this reason, the previous literature investigating the impact of irrelevant events has devoted significant attention to sports results. Most of this work has focused on the United States. Healy et al. (2010) find significant effects of wins or losses of local US college football and basketball teams on senate, gubernatorial and presidential election results using county-level data and a survey experiment. They conclude that the “findings underscore the subtle power of irrelevant events in shaping important real-world decisions” (Healy et al., 2010: 12804). Similarly, Miller (2013) connects results of baseball, basketball and American football franchise teams to mayoral elections and finds that “winning sports records boost incumbents’ vote totals and likelihoods of re-election, exceeding in magnitude the effect of variation in unemployment” (Miller, 2013: 59).

We shift the focus to the Irish context where the theory would predict very strong effects. Engagement with and interest in sport is very high in Ireland and we would expect that sports results will have a particularly strong influence on individuals’ mood and well-being. For example, a cross-national representative survey shows that over 95% of Irish respondents are somewhat or very proud when the national team is successful in a sports competition (ISSP, 2009). In the same survey, approximately half of the Irish respondents disagreed that there is too much sport on television. In comparison, only 35% of US respondents expressed disagreement. If sporting results do in fact influence voters’ evaluations of candidates for election and government performance, this is most plausible in a context in which there is very high general interest in sports and citizens feel emotionally invested in their teams. The Irish context presents such a case.

Our hypotheses follow then from existing studies on the influence of sports games on political opinions and voting behavior. The first hypothesis focuses on differences between candidates who won a seat at the previous election and challengers not currently represented in parliament. Incumbency thus relates to holding or not holding a seat in a parliamentary
assembly. The literature would assume that voters reward or punish politicians who currently represent them for irrelevant events. Incumbent politicians cannot be held accountable for the performance of the Gaelic football or hurling team that voters are affiliated with and no policy would be expected to follow from such a random outcome. Instead, voters are responding to the stimulus that follows from their team winning or losing and allowing the effects on their emotional well-being from these irrelevant events to influence their vote.

**Hypothesis 1**: Incumbents whose local sports team has won (lost), experience an increase (decrease) in vote shares.

Incumbency status might not only depend on whether or not a candidate represents the constituency, but also whether a candidate’s party is holding government office at the time of an election. This differentiation is especially important in multi-member districts. In Ireland, each multi-member constituency may have multiple incumbents including both government party incumbents and incumbents from other parties. Importantly, there are also often candidates from the governing party who are running in the district but are not incumbents from the previous election. Candidates of the current government party might not be represented in parliament, but still profit or suffer from irrelevant events due to their links to the performance of the government.

**Hypothesis 2**: Candidates from the incumbent government party whose local sports team has won (lost), experience an increase (decrease) in vote shares.

Hypothesis 1 and 2 relate to aggregated voting behavior (see e.g. Healy et al. 2010). In addition, we also expect individual differences in political opinions depending on the outcome of irrelevant events if the logic holds. More precisely, we posit that respondents whose local team won a match shortly before the survey completion date would express more positive views
of the Prime Minister and their preferred party compared to respondents whose team lost a match before the survey was completed.

**Hypothesis 3**: Survey respondents whose local team has won (lost) express more positive (negative) opinions towards political actors.

**Sports Results in the Irish Context: The Case of Gaelic Games**

The impact of sports results as irrelevant events on political outcomes in Ireland is best tested by focusing on wins and losses in Gaelic Games (Gaelic football and hurling) competitions. These sports are unique to Ireland and are administered by the Gaelic Athletic Association (GAA), which is Ireland’s largest voluntary organization (Liston, 2015). They are amateur sports and have the highest participation rates in the country (Reilly and Collins, 2008; Central Statistics Office, 2015). The All-Ireland football and hurling championships, contested every summer (April–September), are the most prestigious competitions. Around 1.5 million people attend games during the All-Ireland championships every year, approximately one in every three inhabitants of the Republic of Ireland (Gaelic Athletic Association, 2019). Attendances at many individual matches exceed 50,000 and the finals of these tournaments have long been the central feature of the Irish sporting calendar with virtually all post-war final crowds exceeding 60,000.\(^2\) Since stadium renovations in the 2000s, final attendances exceed 80,000. The matches also attract huge television audiences (TAM Ireland, 2019). These television audiences are similar or higher than audiences of American football in the United States or soccer in the United Kingdom and Germany (SI Section A).

\(^2\) One exception is the 1947 final played at the Polo Grounds in New York on the centenary of the Irish famine. Capacity at Croke Park, the national stadium, was also reduced for some years in the 1990s and early 2000s due to renovations.
The All-Ireland Championships are contested on an inter-county basis by the twenty-six counties of the Republic of Ireland as well as the six counties of Northern Ireland and date back to before the establishment of the two states on the island. This means that all citizens of the Republic of Ireland have a local representative inter-county team and these county teams have corresponded in the vast majority of cases with constituency lines in national elections going back to the 1920s. Until 1997, all All-Ireland matches were run on a single-elimination basis in which a single defeat knocked a county out of the competition.

There is little reason to expect any particular pattern linking interest in Gaelic games to support for particular political parties. While the GAA and its games has always had a national political identity in the broad sense, this has not been party political in nature. Membership of GAA clubs and political parties overlaps but tends to correspond to patterns of the proportion of GAA membership among the general population and is unsurprising given the significance of the role of the GAA in Irish social life (Gallagher and Marsh, 2004; Delaney and Fahey, 2005). Similarly, there is some tradition of retired inter-county football and hurling players running for office for many of the major parties (see for example, Ó’Beacháin, 2014) but there is generally little evidence of Irish politicians seeking to or effectively leveraging the success of their county sides directly for their own political advantage.

Turning to the institutional structure in Ireland, the country employs proportional representation using a single transferable vote (PR-STV) in general and local elections. Under PR-STV voters rank some or all of the candidates (including multiple candidates from the same

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3 New York and London also participate in the Gaelic football All-Ireland Championship (they play as part of Connaught). Excluding the eight matches that involve London or New York does not change the results.

4 This is not necessarily true of Irish national sporting successes. Often cited examples here are the prominence of Taoiseach Charles Haughey following Stephen Roche’s 1987 Tour de France victory and more recently Minister for Sport Shane Ross’ appearance at the homecoming of world boxing champion Katie Taylor.
party in some cases) in order of preference. PR-STV produces a candidate-centered system in which voters express preferences as much (if not more) for individual candidates as for parties (Farrell, 2011). Ireland has a multi-party system traditionally dominated by two broadly centre-right parties, Fine Gael and Fianna Fáil, but also has a substantial number of broadly left-of-center smaller parties. Ireland also has a long tradition of independent candidates with a significant number winning election to the national parliament (Dáil Éireann) and local councils. Ireland’s electoral context then also offers advantages for examining the impact of irrelevant events on voting outcomes. Specifically, voters have a variety of options if seeking to switch away from candidates they wish to punish by either voting for one of the other parties’ candidates or an independent, or by selecting away from candidates from the same governing party even if those candidates are not current office-holders. If voters’ personal well-being does have an effect on their political views in this context, this may manifest as a positive (or negative) change vis-a-vis individual representatives and/or governing political parties.

Data, Methods, and Measurement

We rely on two distinct methodological approaches to test whether sports games change political opinions in Ireland. First, we collected a novel dataset of the available constituency-level election outcomes in all Irish general elections between 1922 and 2020 and all local elections between 1942 and 2019. Overall, the dataset consists of 5,997 election-candidate observations from 30 general elections and 8,394 observations from 14 local elections who ran in two

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5 We retrieved all constituency-level election results from the website http://irelandelection.com. Our original dataset includes the percentage and absolute count of first-preference votes of all candidates running for office. We coded incumbency status based on matching names of candidates and constituencies across two subsequent elections. Note that the first elections from our dataset (1922 for general and 1942 for local elections) cannot be included in the sample since the election results in 1922 and 1942 are required to calculate changes in vote shares and the absolute number of first-preference votes.
subsequent elections. We estimate two dependent variables. First, we calculate the percentage point difference in first-preference vote shares for incumbents and non-incumbents between election \( t \) and election \( t-1 \). First-preference vote share under the Irish STV can be regarded as a sincere proxy of voter choice (Benoit and Marsh, 2008: 878). This approach follows Healy et al. (2010) and Fowler and Montagnes (2015b) who also used officially reported vote shares. Second, we also estimate the absolute difference in first-preference vote shares between two elections.\(^6\) Due to different sizes of constituencies and varying turnout, we consider the percentage point difference as the more suitable indicator of incumbency support. In the next step, we collected all match results that occurred in the week before an election. Afterwards, we merged these datasets and checked whether the team located in the constituency played in the six days before a general or local election. 55 championship games could be merged with candidate-level results in general elections. An additional 56 games could be assigned to local election results.\(^7\) The dataset consists of three groups of candidates: those whose local team won, those whose local team lost, and those whose local team did not play, because the team was already out of the competition, did not have a fixture scheduled for the week prior to the election, or when the election did not take place during the All-Ireland championship. 838 candidates in general elections (13%) and 2,379 candidates (29%) in local were ‘treated’ by a match of their regional team taking place in the week before the election.

To test Hypothesis 1, we create the variable *Incumbent* that indicates whether a candidate held a seat in parliament or a local council in the previous legislative cycle. Data from general and local elections allow us to test the incumbency hypothesis on two levels of

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\(^6\) 261 Candidates who ran in more than one district in local elections at the same time are excluded from the analysis. Candidates who ran in election \( t \) and election \( t+2 \), but not in election \( t+1 \) are excluded from the analysis since they did not compete in two subsequent elections.

\(^7\) We add a dummy variable that indicates whether a constituency includes two counties, which sometimes occur in general elections. Controlling for ‘ambiguous’ counties does not change any of the results (Figure A 8).
governance. We test Hypothesis 2, which assumes that politicians from the incumbent government party lose or win votes, based on match outcomes by turning to general elections. For each election since 1922 we code whether a candidate’s party held government office in the previous cycle.\(^8\) To be clear, while the first hypothesis focuses on individual incumbency effects due to holding office and enjoying higher visibility, the second hypothesis shifts the focus to party-level incumbency effects by distinguishing between government and opposition parties.

We conduct a difference-in-differences design (DiD) to estimate an average treatment effect (ATE) of the impact of the match results on votes shares by incumbents and non-incumbents. The interaction term between Match Treatment (Win; Defeat; Untreated) and Incumbent (H1) or Incumbent Party (H2) captures whether incumbent candidates and candidates from government parties profit or lose electorally from a win or defeat of the local team. The politicians whose regional team did not play in the week before an election or whose local team drew a match with the opponent, serve as a baseline of ‘untreated’ candidates.\(^9\) All of these candidates ran in two subsequent elections which enables us to estimate changes in vote share and absolute first-preference votes.

Second, we combine the Irish National Election Studies from 2002 and 2007 with match results during the fieldwork of the survey to test whether results observed for constituency-level election results persist on the level of individual voters. This ‘unexpected event during survey design’ approach exploits the occurrence of events during the survey period. Such designs enjoy increasing popularity in political science (e.g. Ferrín et al. 2019; Minkus et al., 2019; Muñoz et al., 2020) as it is possible to divide up respondents into a treatment group who answered a

\(^8\) Since local councils in Ireland have considerably less policy-making power and do not have clear government-opposition divides, we limit the focus of H2 on national elections.

\(^9\) Figure A 3–Figure A 5 show the number and distribution of candidate-observations in each group and election.
survey shortly after having experienced a ‘shock’ (such as a natural disaster, a terrorist attack, scandals, or sports results) and a control group who answered the same questions before the unexpected event. The Irish National Election Study chose households at random and in a second step randomly selected a random respondent within each household. The surveys were fielded after the election date, allowing us to cancel out short-term effects based on campaign events. The response rates amount to 60% in 2002 and around 42% in 2007. Over 85% of respondents were interviewed face-to-face which reduces the chance that respondents answered the questionnaire strategically after a match. Table A 1 lists summary statistics for the central variables measuring political opinions in the survey. Across the two elections, 3,672 respondents whose team played within a window of ±6 days around the interview completion, have ranked their satisfaction with the Prime Minister. The number of respondents who ranked their preferred party is lower (2,626) because a considerable share of respondents did not express any party affiliation. Figure A 6 displays the frequency of interviews conditional on the difference in days to the match. 1,138 respondents completed the survey within a window of ±2 days from their county’s match and have non-missing values for the main dependent variable.

The influence of the unexpected event during the survey period is analyzed in three ways. First, we run smoothed loess regressions and compare the development of approval for parties and the government in the week before and after a loss and defeat. Second, after testing for the balance individual-level characteristics of respondents answering the survey before and after a loss or defeat, we run a series of t-tests to test for the difference in means for a range from ±2 to ±6 days before and after matches. Third, we reweight the dataset using entropy balancing (Hainmueller, 2012) and run a series of regressions with the ‘treatment’ of answering before or after wins or defeats. We test the hypotheses using two dependent variables: the rating of Bertie

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10 Marsh and Sinnott (2008) describe the data collection procedures and variables extensively.
Ahern, the Irish Taoiseach (Prime Minister), and the rating of a party (if any) with which respondents affiliate. All rankings can range from 0 (strongly dislike) to 10 (strongly like). The main independent variable indicates whether a respondent’s county won or suffered a defeat and whether the respondent completed the survey before or after this match. We only consider respondents who completed the questionnaire within a window of ±6 days before or after the match.

Results

The presentation of the results proceeds in three steps. First, we present the findings from the difference-in-difference regressions using constituency-level election data. Second, we summarize the results from the ‘unexpected event during survey design’ analysis. Third, we conduct a series of robustness tests using alternative measurements or model specifications.

Changes in Vote Shares for Incumbent Candidates

Beginning with the analysis of all Irish general and local elections, we show expected values of the difference-in-difference design for the treatments of having won or lost a match in the week prior to election day and the ‘untreated’ candidates. The analysis relies on 358/1,087 (general/local elections) candidates whose team suffered a defeat, 480/1,292 candidates whose county team won, and 5,159/6,015 ‘untreated’ candidates.

Table 1 shows the regression coefficients, along with the 95% confidence intervals. Model 1 shows multilevel linear regressions with random effects for each election, Model 2 uses fixed effects, clustered by election. Models 3 and 4 reproduce these analyses for local elections.

To ease the interpretation of the substantive differences, Figure 1 shows expected values for the interaction between Treatment and Incumbency status for general elections. The model includes random effects for each election to this difference-in-difference design. We do not
observe any substantive changes in the expected direction regarding the first-preference vote shares of candidates whose county team won or lost. Non-incumbents (i.e. all candidates who participated at two subsequent elections) also do not profit from wins or defeats. The same patterns emerge for the analysis local elections (Figure 2). If anything, the difference-in-difference models suggest the opposite effect: defeats correlate with fewer losses for incumbents and fewer gains for non-incumbents. Results remain the same when using the absolute changes in first-preference votes instead (SI Section C.1).

Table 1: Predicting changes in shares of first-preference votes in general and local elections

<table>
<thead>
<tr>
<th></th>
<th>M1: General (multilevel)</th>
<th>M2: General (fixed effects)</th>
<th>M3: Local (multilevel)</th>
<th>M4: Local (fixed effects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match treatment: Defeat</td>
<td>-0.81</td>
<td>-0.86*</td>
<td>0.32</td>
<td>0.32</td>
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<td>(baseline: Untreated)</td>
<td>[-1.90; 0.28]</td>
<td>[-1.67; -0.06]</td>
<td>[-0.21; 0.85]</td>
<td>[-0.15; 0.78]</td>
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<td>Match treatment: Win</td>
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<td>0.08</td>
<td>-0.20</td>
<td>-0.21</td>
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<tr>
<td></td>
<td>[-0.84; 1.02]</td>
<td>[-0.72; 0.88]</td>
<td>[-0.73; 0.33]</td>
<td>[-0.64; 0.22]</td>
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<tr>
<td>Incumbent</td>
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<td>-2.17*</td>
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<td>Defeat x Incumbent</td>
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<td>1.63*</td>
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<td></td>
<td>[0.36; 2.91]</td>
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<td>Win x Incumbent</td>
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<td>-0.03</td>
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<tr>
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<td>RMSE</td>
<td>5.50</td>
<td>4.53</td>
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</table>

*0 outside the confidence interval

Note: Models 1 and 3 are multilevel linear regressions with random effects for each of the 30 general and 14 local elections. Models 2 and 4 reproduce these models but use fixed effects, clustered by election. Intercept omitted from table.
Figure 1: Predicting changes in vote shares of rerunning candidates in Irish general elections

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on the interaction between the Treatment (matches) and Incumbency status in Model 1 of Table 1.

Figure 2: Predicting changes in vote shares of rerunning candidates in Irish local elections

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on the interaction between the Treatment (matches) and Incumbency status in Model 3 of Table 1.

To test whether candidates from incumbent government parties (rather than incumbent candidates) profit from wins of the regional team (Hypothesis 2), we limit the sample to candidates whose party were in government before a general election. We add Incumbent as a control variable because politicians who held a seat in the previous parliament enjoy an incumbency advantage in Ireland (McElroy and Marsh, 2010). Figure 3 plots the expected values of vote
shares depending on the match outcomes. We do not observe any substantive or statistically significant differences in expected vote shares depending on match outcomes. Candidates from government parties do not profit from wins or suffer from defeats of their local teams. The point estimates and confidence intervals are virtually identical to the candidates from government parties who were not ‘treated’ by a game of the regional county team. The results do not offer support for the hypothesis that sports games influence support for candidates from incumbent parties.

Table 2: Predicting changes in shares of first-preference votes for candidates from incumbent and opposition parties in Irish general elections

<table>
<thead>
<tr>
<th></th>
<th>M1 (multilevel)</th>
<th>M2 (fixed effects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match treatment: Defeat (baseline: Untreated)</td>
<td>0.71 [-0.21; 1.63]</td>
<td>0.77 [-0.12; 1.66]</td>
</tr>
<tr>
<td>Match treatment: Win</td>
<td>1.13* [0.29; 1.97]</td>
<td>1.11* [0.21; 2.00]</td>
</tr>
<tr>
<td>Party: Opposition</td>
<td>1.36* [1.02; 1.71]</td>
<td>0.99* [0.67; 1.31]</td>
</tr>
<tr>
<td>Defeat x Party: Opposition</td>
<td>-0.82 [-2.02; 0.37]</td>
<td>-0.96 [-2.09; 0.16]</td>
</tr>
<tr>
<td>Win x Party: Opposition</td>
<td>-1.84* [-2.89; -0.79]</td>
<td>-1.81* [-2.90; -0.73]</td>
</tr>
<tr>
<td>AIC</td>
<td>37617.91</td>
<td></td>
</tr>
<tr>
<td>BIC</td>
<td>37678.20</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-18799.95</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>5997</td>
<td>5997</td>
</tr>
<tr>
<td>N (Party)</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>N (Elections)</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>R squared</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Adj. R squared</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>RMSE</td>
<td>5.57</td>
<td></td>
</tr>
</tbody>
</table>

* 0 outside the confidence interval

Note: Model 1 is a multilevel linear regression with random effects for each of the 30 elections. Model 2 reproduces this model using fixed effects, clustered by election. Intercept omitted from table. The sample is limited to candidates whose party held government office before the election.
Figure 3: Predicting changes in vote shares of rerunning candidates from incumbent government parties in Irish general elections

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on Model 1 of Table 2.

We conducted various robustness tests for the analysis of constituency-level election results and the treatment effects during the survey periods. First, we estimate changes in vote share for incumbents and non-incumbents in general elections for the subsets of ‘stronghold’ counties and ‘non-stronghold’ counties. It is reasonable to expect that respondents from counties where the hurling or football team is more successful or has a tradition of strong support will be more likely to be influenced by results. A county is coded as a stronghold if (1) the county team has experienced recent success in the particular sport such as winning a provincial final\footnote{This is the first stage of the All-Ireland competition in which a county competes against other counties from its region. It is broadly analogous to a regional conference in American sports.} and/or has recently reached the latter stages of the All-Ireland series in the previous decade and/or (2) if the county has a significant traditional support base even if there has not been recent tournament success (SI Section D).\footnote{Partially due to the elimination structure of the competition and the major variation in resources such as population size across counties, counties with strong support may not achieve provincial or national success for a significant period but remain extremely important to individuals from that county. Examples include Clare in hurling who did not win a Munster provincial final for 63 years before 1995 or Kildare in football who have not won a Leinster championship for 19 years.} Either of these elements, we believe, increases the likelihood that a respondent will potentially be influenced by a win or loss for their county team. If we observe the mechanism brought forward in previous studies, we should observe
them in strongholds. Yet, substantive results remain unchanged: incumbents in strongholds neither profit nor lose votes when the county team has won or lost a match, both in general and local elections (Figure A 11, Figure A 12, and Table A 3). Given that voters in strongholds are on average even more passionate about their county’s success, these findings strengthen our conclusion that match results in Gaelic games do not influence incumbency support.

The results reported above focus on a difference-in-differences design and do not include many control variables apart from random/fixed effects for elections. Thus, the question remains whether these models are underspecified and whether control variables would change the conclusions. To assess the robustness of the absence of a relationship between sports games and incumbent support, we conduct a specification curve analysis (Simonsohn et al., 2019). Specification curves estimate the coefficient of interest for a variety of models that include a different set of control variables and fixed effects. In what follows, we limit the sample to incumbents who experienced either a win or a defeat and report the point estimate and the confidence intervals of the coefficient for winning a game on change in first-preference vote share. A coefficient larger than 0 implies that a candidate whose team experienced a win also increased her vote share compared to the previous election. We consider the following control variables for local and general elections: the difference in days between a match and the election (proximity between both events might result in stronger effects), the position of a candidate after the first count at the previous election as a factor variable (i.e., whether a candidate received the highest number of first preferences, the second highest, and so on), the party of a candidate, whether a county team was a stronghold at the time of the election, and the sport (hurling/football). Moreover, we run the model without any fixed effects, with fixed effects for countries, with fixed effects for elections, and for fixed effects for counties and elections.13

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13 Note that some of the combinations lead to rank deficiencies of the regression models.
Figure 4 plots the coefficient for a win on incumbent vote share for general elections. First, we observe that the vast majority of model specifications result in statistically insignificant results (the 95% confidence intervals cross zero). Even more importantly, all regression models have a negative coefficient, meaning that the incumbent does not profit from a win of the regional team. For local elections we observe very similar patterns (Figure 5). The vast majority of models have a statistically insignificant and negative coefficient. Not a single model has a significant, positive, and sizeable coefficient. Again, incumbent candidates do not profit electorally from wins of their local county teams. These findings speak to the literature on the ‘cost of governing’ (e.g. Müller and Louwerse, 2018) implying that candidates who are represented in parliament lose votes at the next election.

Figure 4: Sensitivity curve for general elections

Note: Each point shows the coefficient of a win of the local county team changes in first-preference vote share for an incumbent candidate. The model is limited to incumbents whose teams either experienced a win or a defeat in the week before election day.
Figure 5: Sensitivity curves for local elections

Note: Each point shows the coefficient of a win of the local county team changes in first-preference vote share for an incumbent candidate. The model is limited to incumbents whose teams either experienced a win or a defeat in the week before election day.

Changes in Political Opinions: An Unexpected Events During Survey Design

The section above reported results based on aggregate-level vote shares for candidates. However, it could be the case that we need to turn to the level of individual voters in order to measure whether sports results influence political opinions. Therefore, we turn to the findings from the ‘unexpected events during survey design approach’ using the Irish National Election Studies from 2002 and 2007. Both surveys were conducted throughout the All-Ireland championships.

Figure 6 shows smoothed loess regression lines for the approval with the Prime Minister, separately for the week before and after matches. Each dot marks one respondent. The left-hand part of the plot displays the development for respondents that have lost a match. The right-hand part only considers respondents who live in a county that has won. When comparing the loess lines before and after the ‘treatment’ of matches, we do not observe any consistent trends.
Satisfaction with the prime minister does not increase in any of the four scenarios in which a respondent’s county wins. At the same time, we do not observe any negative shift for respondents whose county suffered a defeat. If at all, it appears that in 2007 the rating of the Prime Minister has increased for respondents whose team lost.

Figure 6: Comparing rating of Irish Prime Minister before and after wins/defeats

We extend the visual evidence by running t-tests for these scenarios using cut-off points ranging from ±2 to ±6 days. Logistic regression with the treatment (before/after) as the dependent variable for all subsets of respondents from ±2 to ±6 days tests for the balance of the treatment and control groups (Figure A 13). The samples are almost perfectly balanced with no relevant variable being significantly different from 0.\(^{14}\) Figure 7 shows the differences in means

\(^{14}\) We check the balance for employment status, gender, income, marital status, and whether a respondent reported to have voted at the last election. The only unbalanced factors are the group of 52 divorced
for the ranking of the Prime Minister, based on different windows of days. Again, we do not observe any statistically significant differences for winners and only a positive change (against our expectations) for losers in the 2007 competition when selecting a window of ±2 days. This positive difference, however, diminishes when selecting a larger window. A power analysis reveals that the pooled sample of respondents is sufficiently powered\textsuperscript{15} to detect even small changes in approval of around 0.5 (on a scale from 0 to 10).

*Figure 7: Testing the difference in means of the rating of the Prime Minister for winners and losers, based on an increasing window of days*

Third, we run general linear models after applying entropy balancing (Hainmueller, 2012). Comparing the standardized mean differences and differences in proportion reveals that none of the individual-level variables in the unweighted dataset are unbalanced, even when applying a restrictive threshold of a difference greater than 0.05. The balance test offers support for the results of logistic regression models testing for the balance of the treatment groups respondents which constitute less than 1.5% of the entire sample, and unpaid family workers (13 observations which equals less than 0.3%).

\textsuperscript{15} For a desired power of 80%, Type I error tolerance of 0.05, and a reasonably small hypothesized difference in means of 0.5 (which corresponds to around one quarter of the standard deviation of the dependent variable), a sample of at least 457 respondents per treatment group is required. With 794/718 (losers in football/hurling) and 1,239/527 (winners in football/hurling) respondents, each group in our pooled sample contains a sufficiently large number of observations to detect a statistically significant difference of 0.5.
(Figure A 12). After applying entropy balancing, the groups of winners and losers are re-weighted so that the individual-level characteristics between treated and untreated respondents are as similar as possible. Figure 8 shows the estimated average treatment effects on the treated (ATT) for the four main scenarios (winning and losing in hurling and Gaelic football). We would expect to observe negative treatment effects for losers and positive effects for winners. Yet, the treatments in all cases are not distinguishable from 0. Moreover, even the positive effects of around 0.25 (for wins in Gaelic football matches) corresponds to less than 15% of the standard deviation of the dependent variable. The estimates are not only statistically, but also substantively insignificant. We therefore find no meaningful support for Hypothesis 3.

*Figure 8: Treatment effects of unexpected events (win/defeat) on the rating of the Prime Minister*  

<table>
<thead>
<tr>
<th></th>
<th>Gaelic football</th>
<th>Hurling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Winner</strong></td>
<td>984</td>
<td>392</td>
</tr>
<tr>
<td><strong>Loser</strong></td>
<td>765</td>
<td>556</td>
</tr>
</tbody>
</table>

Note: Estimates from generalized linear models after applying entropy balance weights for each subset of respondents. Positive values indicate higher rankings of the Prime Minister. Horizontal bars indicate 90% (thick line) and 95% (thin line) confidence intervals, the number of observations in each group is shown above the points.

To assess the validity of the conclusions derived from the survey data, we follow Muñoz et al.’s (2020) best practices when making causal inference by separating the sample of respondents into a control group and a treatment group. In particular, we focus on five main aspects. First, we check the balance between respondents who replied before or after matches, and do not find any significant differences (Figure A 13). Second, we test whether average
treatment effects on the treated are evident in specific subsets. We distinguish between each competition in 2002 and 2007 and whether a county-sports team was a stronghold or non-stronghold. Figure A 14 plots the ATTs for various subsets, after applying entropy balancing weights for each subset of respondents.

Third, we compare ATTs for the full sample and a subset of respondents who experienced only one match within a window of 6 days before or after completing the survey. Some of the respondents either completed the survey between two matches of their county team or in a week in which both the regional hurling and Gaelic football teams played. For these respondents, it is hard to determine an unambiguous ‘match treatment’. As the comparison of the treatment effects in Figure A 15 underscores, limiting the sample to respondents who are affected by only one match does not change the results for any of the competitions.

Fourth, we use the approval ranking of the party a respondent feels affiliated to as an alternative proxy of political support and rerun the analysis. Again, we do not find any statistically significant treatment effect, and the effect sizes remain small (Figure A 16 and Figure A 17). Losers do not give worse evaluations of the Prime Minister after a defeat, while winning does not consistently increase approval.

Fifth, the survey from 2002 allows us to test whether active GAA members – people who should be even more passionate about their county – have different opinions when they answered the survey after a match. We also test whether results are stronger for respondents answering the surveys in July or August 2002 and 2007 – the later stages of the championship. Figure A 18 and Figure A 19 do not show any notable patterns for these subsets of respondents.

Finally, an alternative explanation for our null result could be the possibility that Gaelic games simply are not of interest for most Irish people. However, as we have shown above, Gaelic football and hurling attract a lot of supporters to stadiums, rank amongst the most popular sports in Ireland, create a strong sense of identity within counties, and voters can be clearly
matched to their regional teams. A large share of the Irish population is actively or passively involved in Gaelic games. For instance, Ireland has over 2,200 GAA clubs, and almost one in five respondents in the 2002 election study was a member of the association. The degree of engagement with Gaelic games is at least comparable to American football in the US or soccer in Germany and the United Kingdom. Thus, we argue that Gaelic games provide a most likely case to observe changes in political opinions dependent on the outcomes of sport games. To sum up, both for the constituency-level results of local and general elections and the quasi-experimental survey design we do not find any consistent evidence of the political relevance of irrelevant events.

Conclusion

Our findings, based on a variety of methodological approaches, strongly suggest that voters in Ireland are not influenced by irrelevant events such as sports results when forming political opinions and making voting decisions. The Irish case provides a ‘most likely case’ to observe such a pattern. Sports in Irish life are very important, many Irish voters have close ties with their hurling and football teams, sports could indeed affect personal mood and well-being, and the electoral system offers opportunities to punish incumbent candidates and parties. Yet, we do not find any evidence these events have a meaningful impact. Irish citizens instead tend to demonstrate competence in distinguishing events for which governments and elected officials can be held responsible for those that they cannot. These results conflict with influential findings from the United States (Healy et al., 2010; Busby and Druckman, 2018) and suggest that these results are not necessarily generalizable to other political and sporting contexts (see also Fowler and Montagnes, 2015a). Instead, our results suggest that, more generally, further evidence is needed to support the contention that ‘irrelevant events’ are, in fact, politically relevant to opinion formation and voting behavior.
More broadly, the study underscores the importance of replicating and extending previous findings (King, 1995; Open Science Collaboration, 2015). The initial positive findings that shark attacks and sports events affect incumbents’ vote shares were striking and have been cited widely as well as being afforded considerable attention in news outlets (e.g. CNN, 2012; Pittman, 2010; Yong, 2010). One of the best ways to conduct independent tests for potential false-positives in observational studies is to extend the analysis to alternative contexts and test whether the same theoretical expectations and estimated effects hold. Our systematic study relying on elections from over nine decades, data from representative surveys, and two research designs do not confirm previous findings on sports events and election results. In Ireland, a country with a huge interest in sports, match results (of mostly knock-out games) do not affect political opinions.

References


Online Supporting Information

A Interest in Sports and Gaelic Games in the Republic of Ireland

Figure A 1: Comparison of levels of pride when country does well in an international sports competition

Note: Own visualization based on data in ISSP (2009). Horizontal bars display 95% bootstrapped confidence intervals (based on 1,000 resamples for each country).
Figure A 2: The popularity of Gaelic football and hurling in terms of TV consumption, compared to American football (US), and soccer (United Kingdom and Germany).

Note: Own visualization based on data in ISSP (2009). Horizontal bars display 95% bootstrapped confidence intervals (based on 1,000 resamples for each country).
B Descriptive Statistics

Figure A 3: Summary of candidate-observations in Irish general and local elections for the treatment levels

![Bar graph showing summary of candidate-observations in Irish general and local elections for the treatment levels.](image)

Note: Numbers above the bars depict the number of observations in each group.

Figure A 4: Summary of candidate-observations in Irish general elections for the treatment levels, split by election

![Graph showing number of observations by year and election outcome for Irish general elections.](image)
Figure A 5: Summary of candidate-observations in Irish local elections for the treatment levels, split by election

Figure A 6: Completion dates of questionnaires in the 2002 and 2007 Irish National Election Studies.
Table A1: Summary statistics of respondents whose county played within a window of ±6 days

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>Min</th>
<th>Pctl(25)</th>
<th>Pctl(75)</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Like/dislike Prime Minister</td>
<td>3,672</td>
<td>6.597</td>
<td>2.699</td>
<td>0.000</td>
<td>5.000</td>
<td>9.000</td>
<td>10.000</td>
</tr>
<tr>
<td>Like/dislike affiliated party</td>
<td>2,626</td>
<td>5.680</td>
<td>2.965</td>
<td>0.000</td>
<td>4.000</td>
<td>8.000</td>
<td>10.000</td>
</tr>
<tr>
<td>Difference from matchday</td>
<td>3,763</td>
<td>0.220</td>
<td>3.829</td>
<td>-6</td>
<td>-3</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>

Figure A7: Distribution of responses relative to the match date of the respondent’s county match

Note: The plot only considers respondents (1) whose local team won or lost within margin of ±6 days and (2) who have answered the survey item on their rating of the Prime Minister. Grey numbers above the bars indicate the number of observations per day.
C Robustness Tests

C.1 Voting Behavior in Irish General and Local Elections

Figure A 8: Predicting changes in vote shares of rerunning candidates in Irish general elections for the sample of counties that can be matched unambiguously to the regional GAA team

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on the interaction between the Treatment (matches) and Incumbency status.

Figure A 9: Expected values of absolute change in first-preference votes in general elections

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on the interaction between the Treatment (matches) and Incumbency status in Model 1 of Table A 2.
Figure A 10: Expected values of absolute change in first-preference votes in local elections

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on the interaction between the Treatment (matches) and Incumbency status in Model 3 of Table A 2.

Table A 2: Predicting changes in absolute number of first-preference votes in general and local elections

<table>
<thead>
<tr>
<th></th>
<th>M1: General (multilevel)</th>
<th>M2: General (fixed effects)</th>
<th>M3: Local (multilevel)</th>
<th>M4: Local (fixed effects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match treatment: Defeat</td>
<td>-339.18</td>
<td>-347.26</td>
<td>70.77*</td>
<td>69.89*</td>
</tr>
<tr>
<td>(baseline: Untreated)</td>
<td>[-778.21; 99.85]</td>
<td>[-694.91; 0.38]</td>
<td>[22.69; 118.85]</td>
<td>[23.39; 116.39]</td>
</tr>
<tr>
<td>Match treatment: Win</td>
<td>-255.61</td>
<td>-281.35</td>
<td>36.41</td>
<td>35.94</td>
</tr>
<tr>
<td></td>
<td>[-631.25; 120.03]</td>
<td>[-580.64; 17.93]</td>
<td>[-11.67; 84.49]</td>
<td>[2.09; 73.98]</td>
</tr>
<tr>
<td>Incumbent</td>
<td>-847.05*</td>
<td>-847.01*</td>
<td>-94.29*</td>
<td>-94.33*</td>
</tr>
<tr>
<td></td>
<td>[-975.15; -718.95]</td>
<td>[-974.60; -719.42]</td>
<td>[-117.53; -71.06]</td>
<td>[-114.60; -74.05]</td>
</tr>
<tr>
<td>Defeat x Incumbent</td>
<td>360.39</td>
<td>364.86</td>
<td>20.50</td>
<td>20.59</td>
</tr>
<tr>
<td></td>
<td>[-152.55; 873.33]</td>
<td>[-79.58; 809.30]</td>
<td>[-37.02; 78.02]</td>
<td>[-38.12; 79.30]</td>
</tr>
<tr>
<td>Win x Incumbent</td>
<td>-51.94</td>
<td>-46.34</td>
<td>-3.82</td>
<td>-3.87</td>
</tr>
<tr>
<td></td>
<td>[-489.56; 385.68]</td>
<td>[-417.82; 325.13]</td>
<td>[-59.60; 51.97]</td>
<td>[-52.50; 44.77]</td>
</tr>
<tr>
<td>AIC</td>
<td>109416.99</td>
<td>124844.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIC</td>
<td>109470.59</td>
<td>124900.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-54700.50</td>
<td>-62414.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>5997</td>
<td>5997</td>
<td>8394</td>
<td>8394</td>
</tr>
<tr>
<td>N (Elections)</td>
<td>30</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R squared</td>
<td>0.07</td>
<td>0.07</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>Adj. R squared</td>
<td>0.07</td>
<td>0.07</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>RMSE</td>
<td>2214.25</td>
<td>410.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 0 outside the confidence interval

Note: Models 1 and 3 are multilevel linear regressions with random effects for each of the 29 general and 14 local elections. Models 2 and 4 reproduce these models but use fixed effects, clustered by election. Intercept omitted from table.
Table A 3: Predicting changes in share of first-preference votes for strongholds and non-strongholds

<table>
<thead>
<tr>
<th></th>
<th>M1: Strongholds (general)</th>
<th>M2: Non-strongholds (general)</th>
<th>M3: Strongholds (local)</th>
<th>M4: Non-strongholds (local)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match treatment: Win (baseline: Defeat)</td>
<td>0.37</td>
<td>1.01</td>
<td>-0.47</td>
<td>-0.71</td>
</tr>
<tr>
<td>Incumbent</td>
<td>[-1.60; 2.33]</td>
<td>[-0.73; 2.75]</td>
<td>[-1.24; 0.29]</td>
<td>[-2.83; 1.41]</td>
</tr>
<tr>
<td></td>
<td>-0.22</td>
<td>-0.80</td>
<td>-1.32*</td>
<td>-1.41*</td>
</tr>
<tr>
<td></td>
<td>[-2.03; 1.59]</td>
<td>[-2.34; 0.75]</td>
<td>[-1.99; -0.64]</td>
<td>[-2.41; -0.42]</td>
</tr>
<tr>
<td></td>
<td>-2.10</td>
<td>-1.27</td>
<td>0.30</td>
<td>-2.73*</td>
</tr>
<tr>
<td></td>
<td>[-4.38; 0.18]</td>
<td>[-3.35; 0.81]</td>
<td>[-0.59; 1.18]</td>
<td>[-5.12; -0.35]</td>
</tr>
<tr>
<td>AIC</td>
<td>2733.40</td>
<td>2450.94</td>
<td>12156.30</td>
<td>2355.29</td>
</tr>
<tr>
<td>BIC</td>
<td>2757.88</td>
<td>2474.91</td>
<td>12190.06</td>
<td>2379.37</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-1360.70</td>
<td>-1219.47</td>
<td>-6072.15</td>
<td>-1171.65</td>
</tr>
<tr>
<td>N</td>
<td>437</td>
<td>401</td>
<td>2055</td>
<td>409</td>
</tr>
<tr>
<td>N (Elections)</td>
<td>12</td>
<td>11</td>
<td>13</td>
<td>8</td>
</tr>
</tbody>
</table>

* 0 outside the confidence interval

Note: Models are multilevel linear regressions with random effects for each of the elections that took place during an All-Ireland championship series. Model 1 only uses matches by stronghold counties, Model 2 limits the sample to non-strongholds. Models 3 and 4 reproduce Models 1 and 2 for local elections. Intercept omitted from table.

Figure A 11: Predicting changes in vote shares of rerunning candidates in Irish general elections after limiting the sample to strongholds and non-strongholds in general elections

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on the interaction between the Treatment (matches) and Incumbency status in Model 1 (upper half of plot) and Model 2 (lower half) of Table A 3.
Figure A 12: Predicting changes in vote shares of rerunning candidates in Irish general elections after limiting the sample to strongholds and non-strongholds in local elections

Note: The plot shows expected values with 90% (thick line) and 95% (thin line) confidence intervals. The estimates are based on the interaction between the Treatment (matches) and Incumbency status in Model 3 (upper half of plot) and Model 4 (lower half) of Table A 3.
Figure A 13: Balance tests for respondents in the two groups (before/after match) for different windows of days before and after matches.

Note: Plots show coefficients from multilevel logistic regressions with random effects for each county, predicting whether individual-level characteristics of respondents who answered the survey before or after a match differ significantly. If the 95% confidence intervals (displayed as the wider error bars) do not cross 0, respondents in the two groups do not show statistically significant differences.
Figure A 14: Treatment effects of unexpected events (win/defeat) on the rating of the Prime Minister for various subsets of respondents

Note: Points show the estimates from regressions after applying entropy balance weights. Horizontal bars indicate 90% (thick line) and 95% (thin line) confidence intervals. The number above each point estimate shows the number of observations in each subset of respondents.

Figure A 15: Treatment effects of unexpected events (win/defeat) on the rating of the Prime Minister for all respondents and respondents who were only “treated” by a single match in a window of ±6 days

Note: Points show the estimates from regressions after applying entropy balance weights. Horizontal bars indicate 90% (thick line) and 95% (thin line) confidence intervals.
Figure A 16: Comparing rating of the party a respondent feels affiliated to before and after wins/defeats

Figure A 17: Testing the difference in means of the rating of the party a respondent feels affiliated to for winners and losers, based on an increasing window of days
Figure A 18: Comparing rating of Irish Prime Minister before and after wins/defeats, GAA members only

Figure A 19: Comparing rating of Irish Prime Minister before and after wins/defeats, only matches in July and August (later stages of the season)
D Coding of GAA Football or Hurling Stronghold

1. 2002 and 2007 All-Ireland Championships General Elections and Survey Data
   a. First Criteria: Proximate Competitiveness
      i. Stronghold equals ‘Yes’ if the County Team contested a provincial
         final in the given code in the previous or subsequent 10 years
      ii. Stronghold equals ‘Yes’ if the County Team contested the All-Ire-
           land series in the previous or subsequent 10 years
   b. Second Criteria: Evidence of Strong Tradition in the Sporting Code
      i. Stronghold equals ‘Yes’ if the County Team has a tradition of strong
         support and/or competitive success at provincial or national level in
         the specific code (hurling or football)
      ii. This is coded based on attendance data (where available), media re-
          ports, and historical records.

2. Historical Championship Results
   a. Criteria: Proximate Competitiveness
      i. Stronghold equals ‘Yes’ if the County Team contested a provincial
         final in the given code in the previous or subsequent 10 years