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**Article:**

Gray, D., Pickard, H. and Munford, L. (2021) Election outcomes and individual subjective well-being in Great Britain. *Economica*, 88 (351). pp. 809-837. ISSN: 0013-0427

<https://doi.org/10.1111/ecca.12362>

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# Election Outcomes and Individual Subjective Wellbeing in Great Britain

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Final version received 2 December 2020.

Exploiting novel longitudinal data on individuals in Great Britain matched to their parliamentary constituency, we find that supporting the incumbent political party, at both the national and constituency levels, exerts a positive influence on individual subjective wellbeing. This relationship varies across different measures of subjective wellbeing, gender and personal characteristics. We then implement a regression discontinuity in time design to estimate the impact of a quasi-natural experiment, where we exploit the timing of the survey around the 2010 election date in order to identify a causal relationship. We find that Liberal Democrat supporters have approximately one-unit higher level of overall life satisfaction after their party's electoral success.

## INTRODUCTION

In Great Britain and across much of the developed world, there have been significant shifts in the political landscape. These shifts are demonstrated by a move away from mainstream political policies in Great Britain, the election of Donald Trump in the USA, and the En Marche! party of Emmanuel Macron in France. Arguably, these events represent significant changes in the political spectrum and have potentially long-lasting and significant consequences to individual lives. Contemporaneously with these events, the area of individual wellbeing has received an increased amount of attention from a range of subjects, including psychology and economics, but also from policymakers. It is increasingly acknowledged that monetary measures of economic development, such as GDP, should be used in conjunction with alternative non-monetary measures of development, including, for example, individual subjective wellbeing (Stiglitz *et al.* 2009). In the UK, and across many other developed countries, this has led to the collection of subjective wellbeing data, with a view to using it to inform policy decisions. Consequently, fully understanding the determinants of individual subjective wellbeing is of increased importance. This paper aims to contribute to the literature relating to the impact of political events on individual subjective wellbeing by analysing the effect of general election results in Great Britain.

Within the sphere of subjective wellbeing and politics research there are two strands of literature: those papers that consider the effect of subjective wellbeing on political support, and those that consider the reverse scenario, whether some type of political support promotes individual wellbeing. In terms of the former direction of the relationship, Liberini *et al.* (2017) investigate the effect of subjective wellbeing on the probability of supporting the incumbent governing party. Analysing survey data from Great Britain, they report that happier respondents are 1.6 percentage points more likely to support the incumbent party. This result is supported by difference-in-differences analysis using an exogenous shock to happiness, the death of a spouse, which deals with endogeneity concerns. In a related study, Ward (2015) explores the predictive power of life satisfaction before an election on the share of votes for the incumbent political party across 126 European elections; the results suggest that life satisfaction, compared to

GDP per capita, had twice the predictive power for the share of votes for the incumbent political parties. In a similar spirit, Dolan *et al.* (2008a) explore the relationship between life satisfaction and voting turnout. They present evidence that happier individuals are more likely to participate in the next general election. However, when exploring the effect of party affiliation and life satisfaction, no statistical relationship is found.

In the reverse scenario, the focus of this study, where political support influences individual subjective wellbeing, research has focused on the left–right nexus. For example, Di Tella and MacCulloch (2005) demonstrate that left-wing voters are happier when left-wing parties win elections and left-wing policies come to fruition, for instance, lower unemployment. A positive effect on subjective wellbeing is similarly found for right-wing voters when right-wing parties win and for right-wing policy outcomes, for example, lower inflation. Likewise, Alesina *et al.* (2004) find that in Europe, left-wing voters are relatively less happy about inequality, while right-wing voters report lower levels of happiness when the domestic inflation rate rises. Earlier work by Radcliff (2001) explores how a number of political facets, such as party control and ideology, affect life satisfaction. Overall, he argues that politics (the actions of voters) directly impacts subjective wellbeing. Specifically, he shows that individuals and nations are happier under a left-wing government owing to support of a social democratic welfare regime to isolate individuals from uncertainty caused by market forces. Alvarez-Diaz *et al.* (2010) find further evidence of this relationship when looking within the USA.<sup>1</sup>

More recently, Pierce *et al.* (2016) explore the impact on happiness when partisans win or lose an election. Using evidence from the 2012 US presidential election, partisan losers (Republican voters) are immediately less happy post-election. In contrast, no effect is found for the Democrat voters, the partisan winners. Furthermore, Jong A Pin *et al.* (2017) investigate an individual's wider political thoughts and the relationship with their life satisfaction. They report that individuals who have populist and nationalistic preferences typically report lower levels of life satisfaction, while a preference for cultural freedom is associated with higher levels of life satisfaction. In a recent related paper, Powdthavee *et al.* (2019) examine the nexus between subjective wellbeing and Brexit (European Union membership referendum in the UK). Analysing the UK Household Longitudinal Study around the Brexit referendum, the authors initially show that those who report lower levels of life satisfaction are more likely to show a preference to leave the European Union. The authors go on to explore the effect of the Brexit result on subjective wellbeing, and find that pro-Brexit supporters enjoyed an increase in life satisfaction after the vote. Moreover, the results suggest that there was an increase in mental distress for the whole sample post-referendum.

There are a range of potential mechanisms that could link political outcomes to an individual's subjective wellbeing. These can be split into two broad categories: monetary rents and non-monetary rents. Considering the non-monetary mechanism, Pierce *et al.* (2016) argue that given that a broad range of social, economic and physical behaviours are shaped by political identity, political outcomes could have a significant impact on the subjective wellbeing of individuals. A related literature explores the effect of identity on individual wellbeing. Akerlof and Kranton (2000), from a theoretical perspective, allow an individual's identity to enter directly into their utility function. If an individual's political preference is seen as being made up of a set of beliefs and social preferences, and gives an individual a sense of identity, then one could argue that their political preferences could influence their level of subjective wellbeing. Moreover, Radcliff (2001) postulates that politics enters directly into the utility function, and people simply care about winning (Di Tella MacCulloch 2005). Regarding the potential monetary

mechanism, Alesina and La Ferrara (2005) show that an individual's current and expected future financial position are predictive of attitudes towards redistributive policies. Specifically, individuals who expect to be better off in the future are less likely to support redistributive policies. This in itself creates a situation whereby voters expect some type of monetary gain in return for their support. This mechanism is closely related to a well-established literature on partisan electoral cycles, where incumbents can manipulate microeconomic and macroeconomic conditions to reward their supporters (Cox and McCubbins 1986; Fourniaies and Mutlu-Eren 2015; Curto-Grau *et al.* 2018).

More widely, the effects of 'winning' can have a broad impact on society. Card and Dahl (2011) report that unexpected football losses (defeats when the home team was predicted to win by four or more points) have a dramatic impact on the rate of at-home violence by men against their partners. In a similar vein, Depetris-Chauvin *et al.* (2018) find that individuals surveyed in the days after an important victory of their country's national football team are more likely to trust other ethnicities than those interviewed just before.

This growing literature relating to both political and broader victories, and the impact that this has on a range of outcomes, including subjective wellbeing, forms the starting point for our analysis. Specifically, we empirically explore the relationship between political outcomes and subjective wellbeing in Great Britain.

This paper extends the existing literature in several ways. By analysing individual-level panel data in Great Britain, we explore the effect of political preference and election outcomes at both the national and constituency levels on individual subjective wellbeing, as measured by overall life satisfaction and psychological wellbeing. Furthermore, we exploit the exact constituency voting results to explore the effect of 'relative' political identity on individual subjective wellbeing. That is, we consider whether having a larger proportion of like-minded voters in a constituency impacts on an individual's own subjective wellbeing. Using the variation in the size of the victory is extant in the current literature. We then go on to exploit a quasi-natural experiment relating to the 2010 general election, and employ a regression discontinuity in time approach. This approach is in line with Metcalfe *et al.* (2011) and Powdthavee *et al.* (2019), where despite the date of the general election in 2010 being given, this date was orthogonal to the individuals' interview date. We exploit this feature to investigate these relationships in an attempt to control for reverse causality and to identify a causal relationship between political preference, election results and individual subjective wellbeing.

We explore the results at both the national and constituency levels, given the potential differential impacts that these results could have on individual lives. At the national level, supporting the incumbent party could have a positive impact on an individual's subjective wellbeing if the individual supports the political party that gives them the largest monetary payoff. In contrast, at the local level, individuals may derive utility from being in a community of (politically) like-minded individuals. As a result, it is important to analyse the effects at both the national and constituency levels, a distinction that is neglected in the existing literature. Likewise, we explore the heterogeneity of results across both males and females, and the individual's subjective financial prosperity, in order to help to shed light on the relationship between subjective wellbeing and political outcomes.

Generally, we find that supporting the political party in power has positive impacts on individual subjective wellbeing. The results from a fixed effects analysis suggest that this effect differs across gender and the measure of subjective wellbeing considered. Moreover, these differences are observed whether political support is measured at the

local (constituency) or national level. The results relating to overall life satisfaction suggest that it is supporting the incumbent party at the national level that exerts a positive impact. However, when psychological wellbeing is considered, for men it appears that it is the local—as opposed to national—results that have a positive impact. Regarding the underlying relationship, we explore empirically whether we observe evidence of the monetary channel; we find that supporting the political party in power displays an association with an individual's current subjective financial prosperity, and this effect is symmetric across genders. From this we argue that the observed differences across genders for subjective wellbeing are therefore driven by differences in unobserved non-monetary factors.

We then go on to address potential endogeneity concerns by exploring evidence from a quasi-natural experiment. We implement a regression discontinuity in time (RDiT) to exploit an unexpected result from the 2010 general election. The results relating to the RDiT design once again indicate that supporting a party that becomes the incumbent has a positive effect on life satisfaction.

The remainder of this paper is organized as follows. Section I gives a brief background to the British political system, and Section II describes the data. Section III outlines our empirical approach, and Section IV presents the main results. Section V presents the empirical strategy and results relating to the RDiT, and Section VI concludes.

## I. BRITISH POLITICAL LANDSCAPE

The electorate of the UK elect a government using a 'first past the post' system, where each member of parliament is elected in a local constituency.<sup>2</sup> This voting system requires a political party to obtain a majority of the parliamentary seats; by doing so, they are then entitled to form a government. If no party gains an outright majority, then there is a hung parliament, in which there can be a minority government or a coalition can be formed with other parties; for example, in 2010, a coalition between the Liberal Democrats and Conservatives was formed. The data on elections used in this paper are taken from the Constituency-Level Elections Archive (CLEA), compiled by Kollman *et al.* (2016). The data source contains information on each and every parliamentary seat going back until 1832, and includes details of party vote shares and turnout. This paper, however, focuses on the period 1992–2016 to match our individual-level data. Over this time, the total number of parliamentary seats has fluctuated due to population change, which sets the boundaries for each constituency area (see Table A2 of the Online Appendix for more details). We are uniquely able to match an individual to their parliamentary constituency in a given year, which allows us to identify who they voted for and what the vote shares for each political party in their constituency are. This allows us to discern if a person, for instance, is a Labour voter who resides in a constituency with a higher concentration of Labour voters.

During the period considered in this paper, there were six separate general elections where the governing party changed on three different occasions. In 1992, the Conservative party, led by John Major, won a majority and governed until the next election in 1997. The Labour party, then led by Tony Blair, presided over a relatively tranquil period of electoral success and was maintained in government for 13 years (three terms) until 2010. Following the great recession, British politics entered a period of uncertainty as the 2010 election produced a hung parliament—the first since 1974. The Conservatives were the largest party, and they entered into a coalition with the Liberal

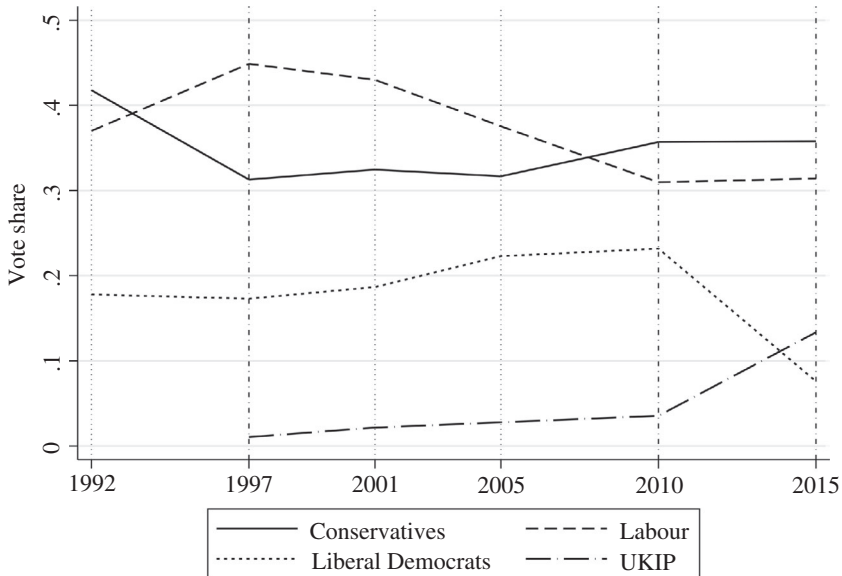


FIGURE 1. National vote share of selected political parties. *Notes:* The graph shows the evolution of party votes shares from 1992 to 2015. Vertical dotted lines indicate election years where the same party remained in government. Vertical dash-dot lines indicate where the party in government changed.

Democrats, led by Nick Clegg, forcing Labour into opposition. This unexpected scenario allows us to implement a quasi-experimental technique to ascertain the causal relationship between political ideology and individual subjective wellbeing. This is discussed in more detail later. To illustrate the voting trends of this period graphically, the national vote shares of the major parties over time are shown in Figure 1.

## II. DATA AND VARIABLES

### *Individual-level longitudinal data*

The empirical analysis of this paper draws on two large, nationally representative longitudinal data sources. These are the British Household Panel Survey (BHPS) and its successor, the UK Household Longitudinal Study (UKHLS), also known as Understanding Society.<sup>3</sup> The BHPS was conducted by the Institute for Social and Economic Research and is a nationally representative longitudinal survey of private households in which the same households are interviewed on an annual basis. The first wave, conducted in 1991, contained a sample of approximately 5500 households, corresponding to roughly 10,300 adults. The sample size of the BHPS was increased in 1999 when an additional 1500 households from Scotland and Wales were included, and similarly, in 2001, a further 2000 households from Northern Ireland were added.<sup>4</sup> We exploit information from waves 2–18 to coincide with the general election in 1992. The BHPS is then merged with the UKHLS, which superseded the BHPS in 2009.

The UKHLS is a nationally representative longitudinal survey of approximately 40,000 households in the UK, with face-to-face interviews carried out between January 2009 and January 2011 for wave 1. We draw on seven waves of Understanding Society, giving us information on 74,630 individuals across the entire panel once missing

observations are omitted. Both the UKHLS and the BHPS contain information on a wide range of socioeconomic and demographic characteristics, and—of particular importance to the present study—a range of information relating to individual political allegiances. Furthermore, the data allow us to identify in which parliamentary constituency each individual resides. This allows us to match the vote shares of each political party, for a given year at the constituency level, to each individual.

### *Variables of interest*

We consider two dependent variables that capture an individual's level of subjective wellbeing in line with Powdthavee *et al.* (2019). Specifically, we consider a single-item measure of life satisfaction and a multiple-item measure of psychological wellbeing based on the General Health Questionnaire (GHQ). In line with, for example, Clark *et al.* (2008), Gardner and Oswald (2007) and Kassenboehmer and Haisken-DeNew (2009), among many others, the measure of life satisfaction is based on the question: 'How dissatisfied or satisfied are you with . . . your life overall?' This is measured on a seven-point scale, where 1 indicates 'Not satisfied at all' and 7 indicates 'Completely satisfied'. The spatial distribution of this variable for all years in the sample binned by parliamentary constituency is presented in Figure A7 of the Online Appendix. As presented in Table A1 of the Online Appendix, the average level of life satisfaction is 5.2, and Figures A1, A2 and A3 of the Online Appendix display long left-hand tails in line with the existing literature, for the pooled sample, males and females, respectively.

In addition to life satisfaction, we also explore an individual's level of psychological wellbeing using a multiple-item measure. Specifically, we use the GHQ, which is a series of twelve questions that are each measured on a four-point scale. The GHQ score, developed by Goldberg (1972), assigns an ordered ranking of the responses to the GHQ and is widely used in the existing literature. We consider the Likert scale, which converts valid answers to the twelve questions of the GHQ to a single scale, which is increasing in health status, by recoding the variables so that the scale for individual variables runs from 0 to 3, and then summing, giving a scaled variable running from 0 (the most distressed) to 36 (the least distressed).<sup>5</sup> Again, the spatial distribution for all years in the sample binned by parliamentary constituency is presented in the Online Appendix, in Figure A8. In line with life satisfaction, the measure of psychological wellbeing is negatively skewed, as presented in Figures A4, A5 and A6 of the Online Appendix, for the pooled sample, males and females, respectively, and Table A1 of the Online Appendix reports that the average score is 24.9.

To identify which political party each individual supports, we exploit information from two questions. The first asks: 'If there were to be a general election tomorrow, which political party do you think you would be most likely to support?' The second question asks: 'Which political party [are you] closest to?' From the responses to these questions, we identify whether a person supports a particular party if they answer with that party to both questions. We also create a group of individuals who do not support a political party, and exclude those individuals who cannot vote. Figure 2 shows how individuals indicate political party support over time. It clearly demonstrates a large increase in the proportion of individuals who do not identify with any of the three main political parties. This trend is also captured in Aidt and Rauh (2017). Compared to the start of the sample period, where approximately 25% of individuals report not being close to a particular political party, this has increased to approximately 50% in 2014.

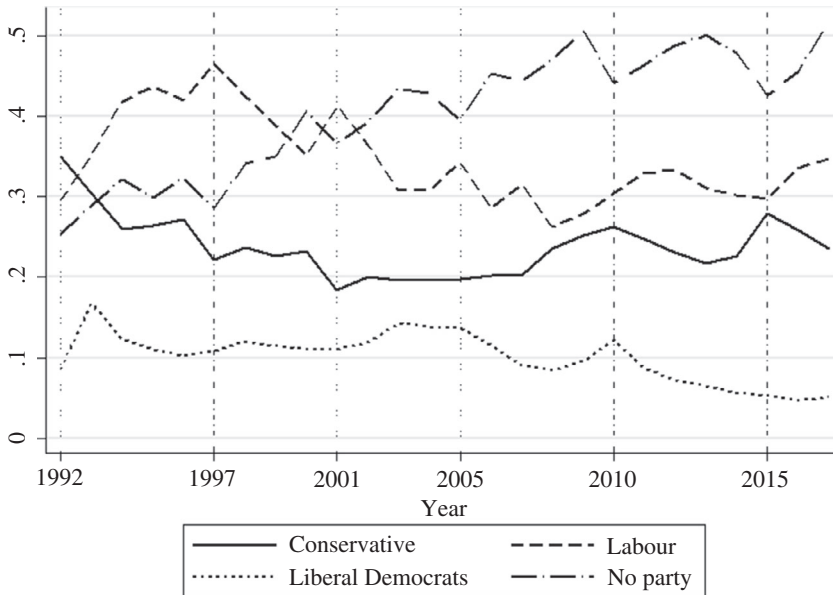


FIGURE 2. Average vote. *Notes:* The graph shows the average vote of all individuals from the BHPS and Understanding Society.

This highlights a trend that an increasing proportion of society fails to identify with one of the three main political parties (Clarke and Stewart 1998).

Our main explanatory variable of interest ( $SupportNational_{it}$ ) is a measure of incumbency support at the national level, based on party support. The variable takes the value 1 if the individual's supported party is the same as the national government—for example, a Labour voter from 1997 to 2010 takes value 1—and 0 otherwise.<sup>6</sup> As presented in Table A1 of the Online Appendix, the average percentage of individuals who report being a supporter of the incumbent national party is 31.8%.

Our second explanatory variable of interest ( $SupportLocal_{it}$ ) is a measure of incumbency support at the constituency level, based on party support. Here, we use election data merged for our individuals to determine whether the MP of the party that they support won the individual's parliamentary seat. For instance, a Labour supporter in constituency  $c$  with a Labour MP will take value 1, whereas a Conservative supporter in the same constituency will take value 0. As presented in Table A1 of the Online Appendix, the average percentage of individuals who report being a supporter of the incumbent local party is 36.5%.<sup>7</sup>

Figures 3 and 4 present the average life satisfaction and GHQ levels, respectively, by political party, over time. The figures suggest that there are differences in the levels of reported subjective wellbeing dependent of an individual's political preference. It is apparent that Conservative supporters report higher levels of both subjective wellbeing measures. In addition, it appears there are differences in how the subjective wellbeing measures evolve over time, for supporters of each of the three major political parties.

While overall life satisfaction and GHQ (a proxy for mental distress) both relate to subjective wellbeing in a general sense, they relate to different facets of wellbeing. Life satisfaction is usually assumed to capture an individual's evaluative wellbeing, that is, how they perceive their current situation in comparison to their life goals and ambitions. In contrast, the GHQ is more a measure of affective, or experienced, wellbeing, and

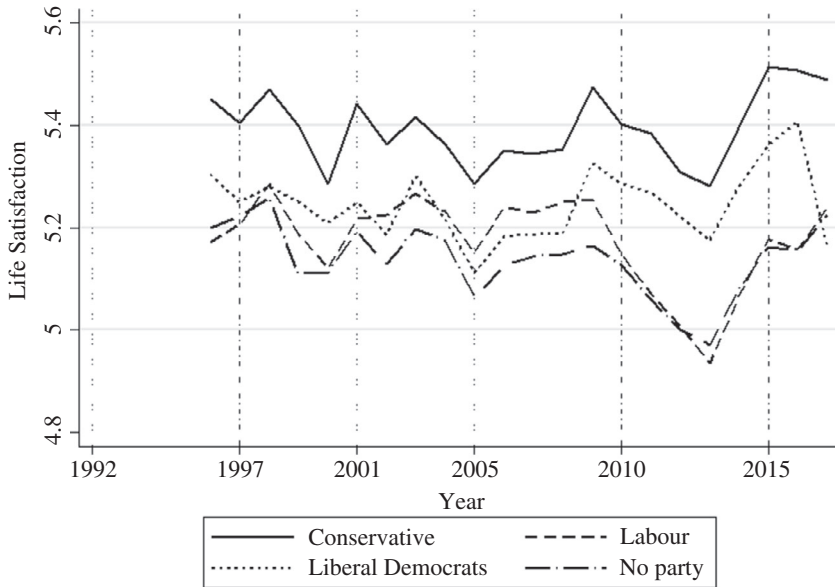


FIGURE 3. Average life satisfaction. *Notes:* The graph shows the average life satisfaction of individuals from the BHPS and Understanding Society by political party.

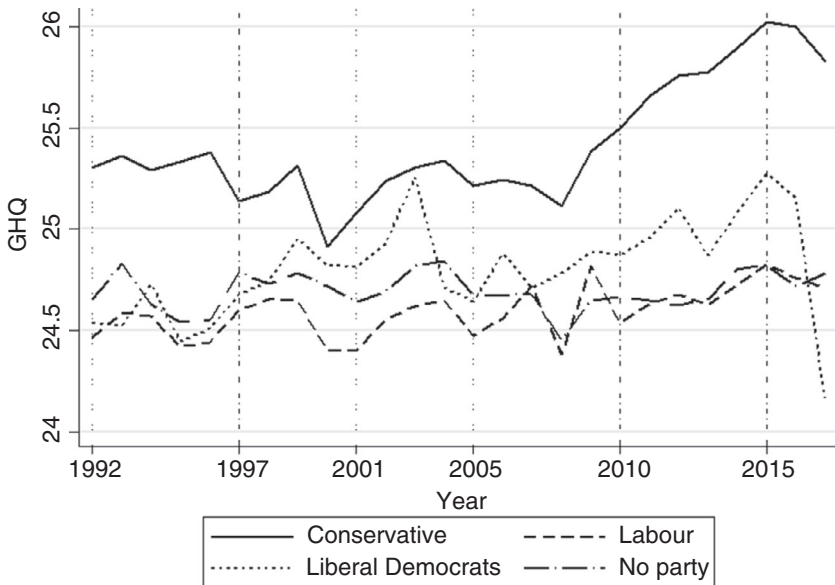


FIGURE 4. Average GHQ. *Notes:* The graph shows the average GHQ of individuals from the BHPS and Understanding Society by political party.

relates more closely to the immediate or usual conditions of an individual (Kahneman and Deaton 2010; Powdthavee *et al.* 2019). *A priori* it is not clear which facet of wellbeing will be most affected by political outcomes, or why. If an individual is forward-looking and realizes that the governing political party can affect their long-term outcomes (or

short-term outcomes that affect long-term goals) such as income and labour market prospects, then life satisfaction may be most affected. Conversely, if an individual is immediately affected by the outcome of an election, for example, through confidence, stress or worry, then the GHQ may be the most influenced. It is also plausible that both evaluative and affective wellbeing can be affected simultaneously, and that different subgroups of the population may respond differently. For example, in their review of the determinants of subjective wellbeing, Dolan *et al.* (2008b) note that typically women tend to report higher levels of happiness while also reporting lower levels of GHQ scores. We therefore split our analyses by gender to allow for this well-known difference in reporting between genders.<sup>8</sup>

Finally, we include a set of observed, time-variant controls that are standard in the existing literature relating to subjective wellbeing and voting behaviour. These are: a quadratic in age; marital status as captured by variables indicating married, divorced or widowed, with single being the omitted category; highest level of education captured by variables indicating having a degree or other high-level qualification, other higher qualification, A level, GCSE, other qualification, while below GCSE level is the omitted category; household size; the natural logarithm of monthly household income; a dummy for home ownership; an indicator if children are present in the household; and employment status indicating employed, self-employed, retired or unemployed, with not currently in the labour force being the omitted category. In addition we control for residential government office region fixed effects and year fixed effects.<sup>9</sup> Variable definitions and summary statistics for all our variables are presented in Table A1 of the Online Appendix.

### III. EMPIRICAL STRATEGY

We use a range of methods to explore the effect of incumbency support on individual subjective wellbeing. As our starting point, in line with the existing literature relating to the determinants of individual subjective wellbeing (see, for example, Ferrer-i-Carbonell Frijters 2004), we control for unobserved, time-invariant individual effects by employing a fixed effects model. Generally, we estimate the equation

$$(1) \quad Wellbeing_{it} = \beta_1 Support\ Incumbent_{it} + \beta_2 X_{it} + \eta_t + \alpha_i + \varepsilon_{it},$$

where  $Wellbeing_{it}$  is defined to be either overall life satisfaction or psychological wellbeing. Our variable of interest is the dichotomous variable  $SupportIncumbent_{it}$ , which is defined at either the national or the parliamentary constituency level.<sup>10</sup>  $X_{it}$  is the vector of observable individual control variables described in the previous section, while  $\eta_t$  are year fixed effects.  $\alpha_i$  is a time-invariant unobserved component, and  $\varepsilon_{it}$  is a white noise error term. The coefficient of interest is  $\beta_1$ , which gives the impact of supporting the incumbent political party at either the national or the local level, and is anticipated to be positive and significant. As mentioned above, we begin by estimating equation (1) using a linear fixed effects model with robust standard errors, clustered at the individual level, to control for the unobserved individual heterogeneity ( $\alpha_i$ ). We have also implemented a fixed effects ordered logit model using the ‘blow-up and cluster’ approach proposed by Baetschmann *et al.* (2015) and estimated in line with Dickerson *et al.* (2014), and obtain qualitatively similar results. Given our initial fixed effects strategy, we are unable to observe any differences across time-invariant variables such as, for example, gender.

However, we may expect a heterogeneous effect across these inherent characteristics. Moreover, the literature has shown that there is a gender gap in subjective wellbeing where females persistently report higher levels than males; see, for example, Alesina *et al.* (2004) and Stevenson and Wolfers (2009). Furthermore, it is consistently found that a range of outcomes have a differential effect on subjective wellbeing across gender; see, for example, Clark *et al.* (2008, 2016) and Clark and Georgellis (2013). We do not have any preconceived ideas about the differential relationship that may exist across genders in the context of election outcomes. As a result, we estimate our models in a pooled sample of males and females, and then for males and females separately to explore the potential heterogeneity across gender.

#### IV. RESULTS

##### *Fixed effects estimation*

##### *Main results*

Table 1 presents the results relating to the impact of local and national election results on both subjective wellbeing measures.<sup>11</sup> Considering panel A of Table 1, the results indicate that supporting the political party that wins at either the national or the constituency level is found to have a positive and significant relationship with life satisfaction. This result is also present once the sample is split into males and females, as presented in columns (2) and (3), respectively. The magnitude of this relationship appears to be larger for females compared with males. For example, supporting the national incumbent party increases, on average, male life satisfaction levels by 0.022 units, while for females it increases life satisfaction by 0.041 units. Considering the association at the local constituency level, the results suggest that supporting the incumbent local MP's party is once again positively related to overall life satisfaction. However, once the sample is split between males and females, it is apparent that females are driving this observed relationship. The final three columns of panel A include supporting the political party at the national and local levels simultaneously.<sup>12</sup> The results suggest that it is support for the political party at the national, as opposed to constituency, level that has a positive association with overall life satisfaction. This result is consistent across both samples of males and females.<sup>13</sup>

We now turn our attention to panel B of Table 1, which presents the relationship between political support and psychological wellbeing as measured by the GHQ. The results are notably different from those relating to overall life satisfaction, which advocates the use of a range of subjective wellbeing measures. Considering the national level results, again these suggest a positive relationship between supporting the incumbent party and psychological wellbeing. Although, once we consider the results at the constituency level, we find that it is only males who are influenced by the local political party. This relationship is found to be statistically insignificant for females. In the pooled sample of males and females, the inclusion of both local and national variables, as presented in column (7), suggests that they both have positive associations with psychological wellbeing levels. However, the separation by gender reveals that the results at the national and constituency levels have distinct relationships for males and females, respectively. Specifically, it appears that for males it is the constituency-level electoral results that are important for psychological wellbeing. In contrast, for females, it is the national-level results that influence psychological wellbeing.<sup>14</sup>

TABLE 1  
RELATIONSHIP BETWEEN WINNING AND SUBJECTIVE WELLBEING

	Overall (1)	Male (2)	Female (3)	Overall (4)	Male (5)	Female (6)	Overall (7)	Male (8)	Female (9)
<i>Panel A: Life satisfaction</i>									
Support national	0.0327*** (0.00574)	0.0225*** (0.00834)	0.0412*** (0.00790)				0.0313*** (0.00624)	0.0206** (0.00906)	0.0402*** (0.00858)
Support local				0.0176*** (0.00639)	0.0144 (0.00936)	0.0204** (0.00874)	0.00401 (0.00695)	0.00534 (0.0102)	0.00300 (0.00950)
R-squared	0.011	0.012	0.010	0.011	0.012	0.010	0.011	0.012	0.010
Number of individuals	72,408	33,267	39,171	72,408	33,267	39,171	72,408	33,267	39,171
Observations	341,817	152,833	188,984	341,817	152,833	188,984	341,817	152,833	188,984
<i>Panel B: GHQ</i>									
Support national	0.0677*** (0.0196)	0.0824*** (0.0270)	0.0562** (0.0279)				0.0478** (0.0214)	0.0420 (0.0294)	0.0534* (0.0305)
Support local				0.0771*** (0.0220)	0.134*** (0.0305)	0.0318 (0.0312)	0.0555** (0.0240)	0.115*** (0.0333)	0.00787 (0.0340)
R-squared	0.009	0.013	0.007	0.009	0.013	0.007	0.009	0.013	0.007
Number of individuals	74,579	34,328	40,281	74,579	34,328	40,281	74,579	34,328	40,281
Observations	375,318	168,141	207,177	375,318	168,141	207,177	375,318	168,141	207,177

*Notes*

All specifications include auxiliary control variables (age, age squared, a dummy for 'married', a dummy for 'divorced', a dummy for 'widowed', the natural log of household size, the natural log of monthly household income, a dummy for home ownership, a binary indicator for having children present in the household, a dummy for full-time employment, a dummy for part-time employment, a dummy for 'retired', a dummy for 'unemployed', a set of education dummies for a degree, other higher education, A level and GCSE attainment, government office region fixed effects and year fixed effects). Robust standard errors, clustered at the individual level, are reported in parentheses.

\*, \*\*, \*\*\* indicate  $p < 0.1$ ,  $p < 0.05$ ,  $p < 0.01$ , respectively.

The results presented in this subsection indicate that supporting the incumbent party at both the national and the constituency levels has a positive impact on both overall life satisfaction and psychological wellbeing. These results are found to differ across gender and across the measure of wellbeing explored. It appears that the results at a local level affect the evaluative wellbeing (life satisfaction) of females and the affective wellbeing (absence of mental distress) of males. This contributes to the existing literature that explores the impact of macroeconomic events on individual wellbeing, and shows that election results and the political affiliation of an individual can combine to have economically meaningful impacts on an individual's level of wellbeing. Further, these results are consistent with Dolan *et al.* (2008b), which notes that there are gender differences between females and males. We now proceed to explore the heterogeneity of these results across different groups.

*National seats, local shares and spillover effects* In this subsection, we exploit data relating to the number of parliamentary seats won (at the national level) by each political party, and the voting behaviour in each constituency, as measured by share of votes won by each political party. Given that we can observe the parliamentary constituency in which an individual resides, and the precise voting behaviour of that constituency, we explore whether these vote shares influence individual subjective wellbeing. We then explore whether the effect of supporting the incumbent party on subjective wellbeing displays a different relationship if the individual lives in a 'close' parliamentary constituency, as measured by the magnitude of victory at the constituency level.

Initially, we explore the results relating to the number of parliamentary seats won by the political party supported by the individual.<sup>15</sup> This arguably captures the success of the political party, even if the political party does not gain overall power. The results presented in panel A of Table 2 suggest that the number of parliamentary seats won by the political party that an individual supports has a positive relationship with both overall life satisfaction and psychological wellbeing. Specifically, a one standard deviation increase in the number of seats won increases life satisfaction by 0.009 units, while it is associated with a 0.03 unit increase in psychological wellbeing. Interestingly, the results relating to psychological wellbeing are more pronounced for males, with the results being statistically insignificant for females.

Turning our attention to panel B of Table 2, it reveals a positive relationship between the proportion of the constituency that voted for the same political party as an individual supports and their individual wellbeing. For example, a 1 percentage point increase in the proportion of individuals at the constituency level who voted for the same political party as the individual is associated with an increase in overall life satisfaction of 0.06 units, while it is associated with an increase in psychological wellbeing of 0.23 units. Interestingly, these results are not symmetrical across males and females. For instance, for the measure of psychological wellbeing, the composition of the constituency is statistically significant only for males, as opposed to females. These differences again highlight the importance of separating the sample by gender.

Consistent with the results presented in Tables A2 and A3 of the Online Appendix, we find that the size of the win at both national and local levels affects the GHQ score of males more than it affects the GHQ scores of females. Conversely, the size of the win at both national and local levels affects the life satisfaction scores of females more than it affects the corresponding scores of males. This therefore suggests that the peer effects—that is, how well an individual perceives that their beliefs align with those of people with whom they live in close proximity—affect the evaluative (life satisfaction) and affective (GHQ) wellbeing of males and females differently. One potential explanation for this is

TABLE 2  
NATIONAL SEATS AND CONSTITUENCY SHARES

	Life satisfaction			GHQ		
	Overall (1)	Male (2)	Female (3)	Overall (4)	Male (5)	Female (6)
<i>Panel A</i>						
Number of seats	0.00949*** (0.00325)	0.00923* (0.00475)	0.00985** (0.00443)	0.0298*** (0.0110)	0.0467*** (0.0153)	0.0164 (0.0156)
R-squared	0.011	0.013	0.010	0.009	0.013	0.008
Number of individuals	70,744	32,308	38,463	72,905	33,372	39,560
Observations	322,170	142,409	179,761	354,802	157,300	197,502
<i>Panel B</i>						
Local share	0.0623*** (0.0167)	0.0456* (0.0246)	0.0754*** (0.0226)	0.231*** (0.0569)	0.387*** (0.0798)	0.110 (0.0799)
R-squared	0.011	0.012	0.010	0.009	0.013	0.007
Number of individuals	72,408	33,267	39,171	74,579	34,328	40,281
Observations	341,817	152,833	188,984	375,318	168,141	207,177

*Notes*

All specifications include auxiliary control variables (age, age squared, a dummy for 'married', a dummy for 'divorced', a dummy for 'widowed', the natural log of household size, the natural log of monthly household income, a dummy for home ownership, a binary indicator for having children present in the household, a dummy for full-time employment, a dummy for part-time employment, a dummy for 'retired', a dummy for 'unemployed', a set of education dummies for a degree, other higher education, A level and GCSE level, government office region fixed effects and year fixed effects). 'Number of seats' is defined as the standardized number of seats that the individual's supported party won at the last election. 'Local share' is the share of total votes for an individual's supported party in their constituency. Robust standard errors, clustered at the individual level, are reported in parentheses.

\*, \*\*, \*\*\* indicate  $p < 0.1$ ,  $p < 0.05$ ,  $p < 0.01$ , respectively.

that males care more about how they are perceived, that is, how much their current and usual circumstances are affected by the behaviour of their peers and how those peers view the individual. Further, it seems that females care more about their position in relation to their overall life goals, and they see this as being affected by the voting behaviour of their neighbours.

Finally in this subsection, we consider those parliamentary constituencies that had a 'close' result, compared to a significant majority. We identify those constituencies where the margin of victory was 5 percentage points or less, and those where the margin of victory was greater than 5 points. The results, presented in Table 3, indicate that in line with the above results, supporting the incumbent local party is associated with reporting higher levels of life satisfaction for females, while it has a larger relationship with psychological wellbeing for males. What is also apparent is that for both males and females this positive effect is present in those constituencies where the winning margin was greater than 5 points.

### *Event study*

In order to develop the analysis above, and in a similar vein to Clark and Georgellis (2013), we estimate an event study, which allows us to explore the evolution of the 'supporting effect' on life satisfaction and psychological wellbeing over time. To do so, we create a set of dummies that establish whether a respondent supports the incumbent national government party and was interviewed in the years before and after an election day. As such, the omitted category is individuals who do not support the incumbent party. We remove any individuals interviewed on the election day and estimate the event studies for the pooled sample.<sup>16</sup> This analysis enables us to comment on whether there are any anticipatory or adaption effects from the individual to supporting the incumbent party.

The results are presented visually in Figure 5. We begin by studying the effect on subjective wellbeing around the election day in the top panel. It appears that supporting the incumbent asserts a persistent positive effect on individuals in the years prior to and after an election. This can be interpreted as some evidence of a pre-trend as the effect appears before the election as well as after it. This, however, is not necessarily unexpected. It is plausible that this in fact depicts an electoral cycle in the happiness of incumbent government party supporters. While Liberini *et al.* (2017) show that happier individuals are indeed more likely to support the incumbent government, this implicitly implies that the government would then wish to make voters happier in order to win re-election. In this instance, we have a persistent effect around the general election day.

The bottom panel of Figure 5 examines the psychological wellbeing measure. The results indicate no evidence of any anticipatory effects, that is, a divergence away from zero before the election of the party that an individual supports. In the years after the election day, our estimated coefficient of incumbency support becomes statistically significant at the 1% level. This marked increase appears in a very timely fashion. Once a party is elected, there is a sharp increase in the coefficient for incumbency support in the first and second years after the election, which then dissipates in the third year. Here, the effect acts only in the medium term and does not suffer from pre-election manipulation.

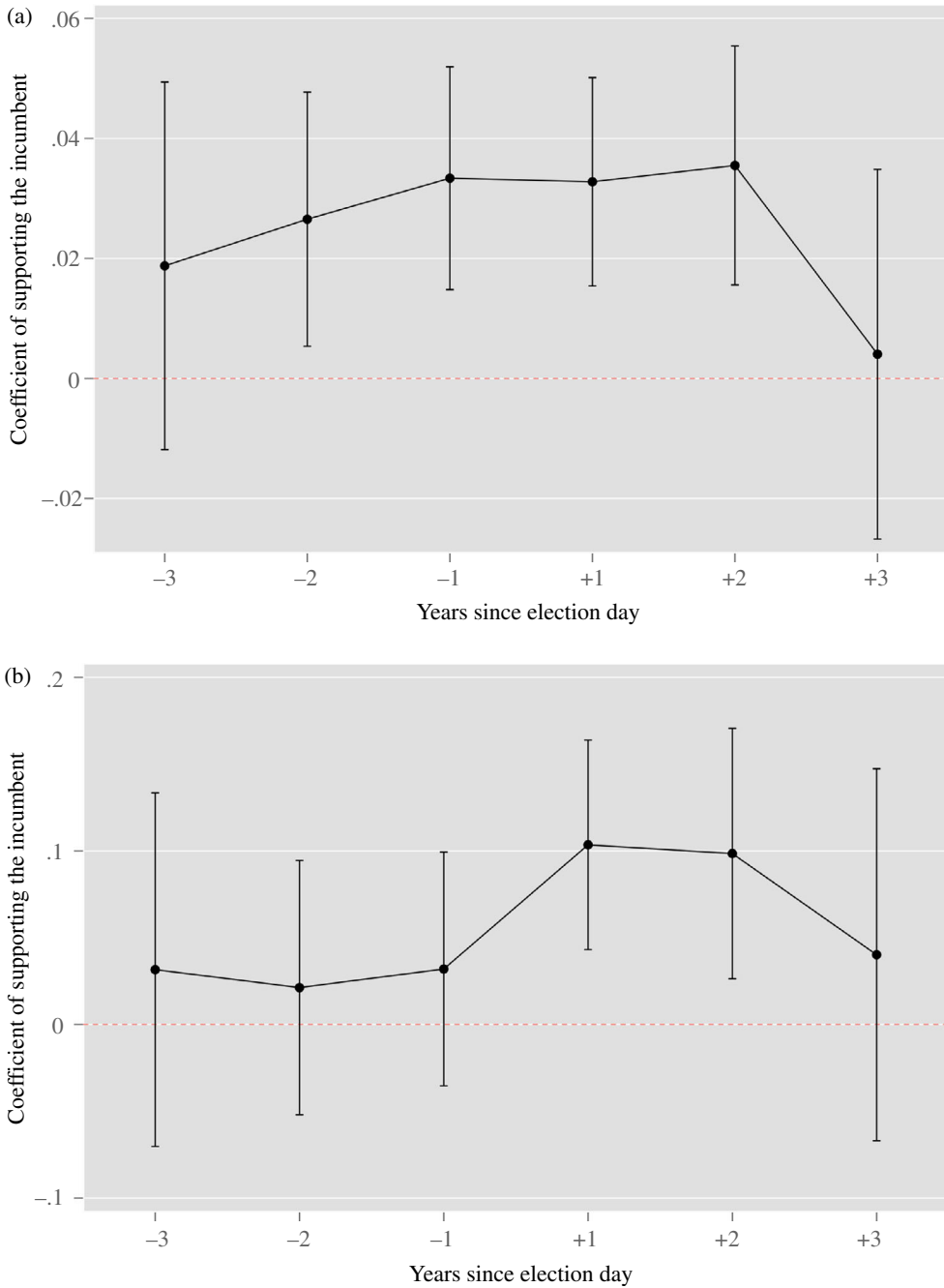


FIGURE 5. Event study: supporting the national government party. *Notes:* The top panel shows the effect of *Support Incumbent* on *LFSAT* in the years before and after the election day. The bottom panel shows the effect of *Support Incumbent* on *GHQ* in the years before and after the election day.

*Potential mechanisms*

In our theoretical discussion presented in the Introduction, we outlined two potential channels through which supporting the incumbent political party can lead to an increase in an individual's subjective wellbeing: a monetary channel that relates to, for example, financial gains or perceived future financial gains; and a non-monetary channel that captures political identity affirmation and a sense of belonging. In this subsection we seek to shed some light on the monetary channel.<sup>17</sup> Partisan theory suggests that competing political parties cultivate relationships with different voting blocs by nurturing reputations for policy-making that favours these groups. As a result, individuals who supported the winning party expect to disproportionately benefit (including financially) under their premiership. That is to ask: does an individual have a higher level of subjective wellbeing when they support the incumbent because they believe their financial situation will be more prosperous? To empirically test this channel, we infer an individual's subjective financial prosperity (SFP) from their answer to the question 'How well would you say you yourself are managing financially these days? Would you say you are . . .', where the responses range from 'Living comfortably' to 'Finding it very difficult'. This question has been used in a variety of contexts in the existing literature (see, for example, Wildman 2003; Mentzakis and Moro 2009), and requires individuals to provide a subjective assessment of their current financial position. The question is available across all waves of our surveys and is measured on a five-point scale. We recode responses so that higher values indicate higher levels of SFP. We then estimate the effect of incumbency support on SFP using the specifications employed in Table 1.

The results are reported in Table 4. Columns (1)–(3) refer to the baseline specification where we define incumbency at the national level. The estimates show that individuals who support the incumbent government have a higher level of SFP; the coefficient for incumbency support at the national level is positive and highly significant in the full sample and when broken down by gender. The estimated coefficient is quite stable across these specifications and shows that incumbency support is associated with higher SFP, around 0.3 units. In columns (4)–(6), we use the specification where we define incumbency at the constituency level. The estimated coefficients are positive, significant and smaller in magnitude, as local politics is perhaps less salient than the national picture. In the final three columns, we include both the national and constituency support variables together. In the pooled sample, we find two distinct effects from each variable. That is, both the national and local support variables exert a significant effect on one's SFP, where the magnitude is larger for the national incumbency support indicator. The results for the monetary channel show a similar effect across genders; that is, the magnitude and the level of statistical significance are similar for males and females. We argue that the observed differences in the relationship across genders for subjective wellbeing can be attributed to the non-monetary channel as opposed to the monetary channel.

As a robustness check on the findings regarding the mechanism, we re-estimate the specifications in Table 3 where we split the sample based on the size of the constituency victory, but now use SFP as the dependent variable.<sup>18</sup> These results are reported in Table 5. As before, we find a significant effect only where we define the victory of margin to be 'wide', and a symmetric effect for males and females, which is reassuring as we see a pattern with our mechanism outcome consistent with what we observe for our wellbeing outcome.

TABLE 3  
WELLBEING AND THE SIZE OF THE LOCAL WIN

	Life satisfaction						GHQ					
	Wide			Tight			Wide			Tight		
	Overall (1)	Male (2)	Female (3)	Overall (4)	Male (5)	Female (6)	Overall (7)	Male (8)	Female (9)	Overall (10)	Male (11)	Female (12)
Support local	0.021*** (0.007)	0.018* (0.010)	0.023** (0.010)	0.001 (0.022)	-0.025 (0.032)	0.020 (0.029)	0.084*** (0.024)	0.147*** (0.034)	0.033 (0.034)	0.017 (0.074)	0.014 (0.102)	0.025 (0.106)
R-squared	0.010	0.012	0.010	0.013	0.013	0.017	0.009	0.013	0.007	0.010	0.017	0.010
Number of individuals	68,171	31,248	36,948	14,743	6723	8025	70,165	32,234	37,956	15,265	6965	8305
Observations	299,425	133,702	165,723	42,392	19,131	23,261	328,575	147,072	181,503	46,743	21,069	25,674

*Notes*

All specification include auxiliary control variables (age, age squared, a dummy for ‘married’, a dummy for ‘divorced’, a dummy for ‘widowed’, the natural log of household size, the natural log of monthly household income, a dummy for home ownership, a binary indicator for having children present in the household, a dummy for full-time employment, a dummy for part-time employment, a dummy for ‘retired’, a dummy for ‘unemployed’, a set of education dummies for a degree, A level and GCSE attainment, government office region fixed effects and year fixed effects). ‘Tight’ is defined as 1 when the individual’s constituency vote share was within 5 percentage points, otherwise the constituency is defined as ‘Wide’. Robust standard errors, clustered at the individual level, are reported in parentheses.

\*, \*\*, \*\*\* indicate  $p < 0.1$ ,  $p < 0.05$ ,  $p < 0.01$ , respectively.

TABLE 4  
 POTENTIAL MECHANISM: HOW SUPPORTING THE INCUMBENT PARTY AFFECTS SUBJECTIVE FINANCIAL PROSPERITY

	Pooled (1)	Male (2)	Female (3)	Pooled (4)	Male (5)	Female (6)	Pooled (7)	Male (8)	Female (9)
Support incumbent	0.032*** (0.004)	0.033*** (0.005)	0.030*** (0.005)				0.027*** (0.004)	0.030*** (0.006)	0.025*** (0.006)
Support local				0.024*** (0.004)	0.023*** (0.006)	0.025*** (0.006)	0.012*** (0.005)	0.010 (0.007)	0.013** (0.006)
R-squared	0.052	0.057	0.051	0.052	0.057	0.051	0.052	0.057	0.051
Number of individuals	74,562	34,320	40,272	74,562	34,320	40,272	74,562	34,320	40,272
Observations	375,070	168,035	207,035	375,070	168,035	207,035	375,070	168,035	207,035

*Notes*

All specifications include auxiliary control variables (age, age squared, a dummy for 'married', a dummy for 'divorced', a dummy for 'widowed', the natural log of household size, the natural log of monthly household income, a dummy for home ownership, a binary indicator for having children present in the household, a dummy for full-time employment, a dummy for part-time employment, a dummy for 'retired', a dummy for 'unemployed', a set of education dummies for a degree, other higher education, A level and GCSE attainment, government office region fixed effects and year fixed effects). Robust standard errors, clustered at the individual level, are reported in parentheses.

\*, \*\*, \*\*\* indicate  $p < 0.1$ ,  $p < 0.05$ ,  $p < 0.01$ , respectively.

TABLE 5  
 POTENTIAL MECHANISMS: HOW THE SIZE OF THE LOCAL WIN AFFECTS SUBJECTIVE FINANCIAL PROSPERITY

	Wide			Tight		
	Pooled (1)	Male (2)	Female (3)	Pooled (4)	Male (5)	Female (6)
Support local	0.027*** (0.005)	0.030*** (0.007)	0.024*** (0.006)	0.006 (0.013)	-0.001 (0.020)	0.011 (0.017)
R-squared	0.052	0.057	0.050	0.043	0.052	0.041
Number of individuals	70,148	32,227	37,946	15,261	6964	8302
Observations	328,362	146,976	181,386	46,708	21,059	25,649

*Notes*

All specifications include auxiliary control variables (age, age squared, a dummy for ‘married’, a dummy for ‘divorced’, a dummy for ‘widowed’, the natural log of household size, the natural log of monthly household income, a dummy for home ownership, a binary indicator for having children present in the household, a dummy for full-time employment, a dummy for part-time employment, a dummy for ‘retired’, a dummy for ‘unemployed’, a set of education dummies for a degree, other higher education, A level and GCSE attainment, government office region fixed effects and year fixed effects). Robust standard errors, clustered at the individual level, are reported in parentheses.

\*, \*\*, \*\*\* indicate  $p < 0.1$ ,  $p < 0.05$ ,  $p < 0.01$ , respectively.

It is important to acknowledge that we rule out any effect operating through the non-monetary channel, and we do not quantify the proportion of the overall effect attributed to the monetary channel. The non-monetary channel is theoretically plausible, and there exists supporting empirical evidence (Di Tella and MacCulloch 2005). Unfortunately, we are unable to test this channel directly as we do not have a suitable survey item to exploit.<sup>19</sup> In summary, the findings presented in this section provide evidence that the monetary channel is indeed one possible mechanism by which supporting the incumbent can affect individual wellbeing. This is in line with partisan theory that predicts that voters will be rewarded for their support by the incumbent (Cox and McCubbins 1986).

## V. ADDRESSING ENDOGENEITY CONCERNS

Our results so far establish that there is a clear positive association between supporting the incumbent government and subjective wellbeing. However, Liberini *et al.* (2017) present evidence for the reverse relationship, that is, that wellbeing impacts political support, and as such, reverse causality suggests an endogeneity concern for our results. As a consequence, we now exploit an RDiT approach to circumvent this bias in order to explore a causal interpretation of our results.

### *Regression discontinuity in time*

A strategy to overcome the endogeneity problem outlined above is to exploit the timing of the survey interviews and the election dates. More specifically, we are interested in comparing voters who completed a wave of the survey shortly before an election to those who completed it shortly after an election. This framework allows us to employ a sharp regression discontinuity design where our running variable is time, the so-called RDiT. This approach is similar to that of Metcalfe *et al.* (2011) and Powdthavee *et al.* (2019),

where despite the date of the general election in 2010 being given, this date was independent of the individual's interview date.

*Identification Issues* To be able to identify the causal effect of supporting an election winner on subjective wellbeing from a regression discontinuity design, the standard assumptions must hold (Lee and Lemieux 2010). Moreover, in the context of an RDiT, there are some additional challenges for identification (Hausman and Rapson 2018). The main identifying assumption, relating to an RDiT design, is that there is no anticipation of treatment. If this is violated, then it will potentially bias estimates downwards by smoothing any discontinuity. To ensure that this is not an issue, we need to select a general election that reflects a quasi-natural experiment, where there was an unanticipated win for a political party. Fortunately, one such scenario exists in the British political landscape that our data cover. The 2010 general election resulted in a hung parliament, the first since 1974, where the Liberal Democrats became the power brokers and entered into a coalition government with the Conservatives. This constitutes a clear and obvious 'surprise win' for the Liberal Democrats, who were considered the 'third' party in British politics at the time.<sup>20</sup> Here, we would expect a positive shock to Liberal Democrat supporters' subjective wellbeing after the election compared to those who reported their subjective wellbeing shortly before the election.

This is related to two further concerns about selection. We require that there is an absence of selective sorting, which refers to the assumption that individuals cannot control the assignment variable and therefore treatment status. As we are dealing with the timing of a survey, we assume that the date at which an individual is observed is as good as random. We do, however, perform a test of this in the next subsection. We also require that the cut-off date is not endogenous. That is, the election was called by the incumbent to occur when happiness was particularly high in order to gain more votes, as Liberini *et al.* (2017) argue. This, in fact, links to another possible issue, that there may be some 'compound treatment', where the election takes place at the same time as another systematic shock to subjective wellbeing. Given that we are considering Liberal Democrat supporters, a non-incumbent party when the election was called, and that the election was a pre-determined event, these should be of no valid concern here.

The final concern is that in the absence of treatment, all outcomes will vary smoothly at the cut-off; that is, there would be no discontinuity if there were no election. A parallel RDiT using a different outcome is potentially not useful in this context as an election impacts numerous outcomes. Thus we run a placebo test using the date exactly one year prior to the election date to be sure that it was the election causing the discontinuity.

Finally, we include a range of controls—namely, gender, a quadratic in age, monthly income and employment status—to explore the robustness of our estimates and to ensure that these factors do not cause the estimates to be biased. In addition, we also include government office region fixed effects to account for the treatment effect varying geographically.

*Empirical approach* To examine the effect empirically, we focus on three groups of Liberal Democrat supporters. This disaggregation is crucial to avoid a selection bias from an individual switching which party they support. The first group is all individuals who identify as Liberal Democrat supporters; the second group consists of Liberal Democrat supporters who identify strongly with the party; and the third group is made up of Liberal Democrat supporters who have constantly voted for the Liberal Democrat party.<sup>21</sup> By doing this, we deal with the issue that some individuals may be more likely to

identify as a Liberal Democrat after their success.<sup>22</sup> This could be a problem in the first group where we take self-reported individual support at face value. In the latter two groups, we ‘look back’ at the data to identify core supporters.

The local polynomial regression, or RDiT, estimate is equivalent to the OLS estimation of the following equation using only observations that satisfy  $days_i \in (6 \text{ May } 2010 - h, 6 \text{ May } 2010 + h)$ :

$$(2) \quad LFSAT_i = \alpha + \rho\tau_i + \gamma_1 days_i + \gamma_2 days_i^2 + \varepsilon_i,$$

where  $\tau_i$  is a dummy variable denoting treatment status taking the value 1 if the Liberal Democrat supporter was surveyed after the 2010 general election on 6 May, and 0 if they were surveyed before. Hence  $\rho$  is the local average treatment effect (LATE). We focus on the life satisfaction outcome rather than the GHQ measure. The primary reason for doing so is that the GHQ questions typically ask: ‘How have you been feeling over the past few weeks?’ This broad evaluation window potentially complicates the estimation of the effect as the evaluation window could potentially include both pre- and post-election time periods. For this reason we consider the life satisfaction measure as it is more ‘in the moment’ and reported based on contemporaneous evaluations.<sup>23</sup> We begin by fitting a second-order polynomial in  $days_i$  on either side of the threshold ( $days_i = 0$ ) and use higher- and lower-order polynomials as a robustness check.<sup>24</sup>  $\varepsilon_i$  is the error term. Another key decision is  $h$ , the kernel bandwidth, the trade-off between precision and bias. Following the literature, we report estimates using the algorithm in Calonico *et al.* (2014), which computes the optimal bandwidth from the data and can therefore be different in each regression. Standard errors are clustered at the constituency level to account for spatial correlation.

*Results* Initially, we visually inspect the data for any discontinuities at the cut-off. Figure 6 presents binned scatterplots of overall life satisfaction over time for the three groups of Liberal Democrat supporters. We use a bandwidth of 100 days for exploratory purposes. A visible discontinuity appears around the election day, suggesting support for our empirical strategy. More specifically, the discontinuity appears to be a larger jump for those who identify more strongly with the Liberal Democrat party. We now go on to formally explore these relationships in a regression framework.

Table 6 explores the impact of the surprise election win for the Liberal Democrat party on a Liberal Democrat supporter’s degree of overall life satisfaction. In column (1), we find no significant effect for the impact of the election on all types of Liberal Democrat supporters. In column (2), we find a positive and statistically significant effect on the subjective wellbeing of Liberal Democrat supporters after the 2010 election, albeit at the 10% level of significance. In column (3), Liberal Democrat supporters who consistently vote for the Liberal Democrat party have over 1 unit higher levels of overall life satisfaction after the surprise election win for their party, significant at the 5% level. We find significant effects in the two groups that we consider to be the core supporters, that is, where individuals are not endogenously identifying as Liberal Democrats due to the electoral shock. In the remaining columns of Table 6, we add several covariates into the estimating equation. The significant relationship persists; individual who consistently state that they are Liberal Democrat supporters report approximately 1 unit higher levels of overall life satisfaction after the election.

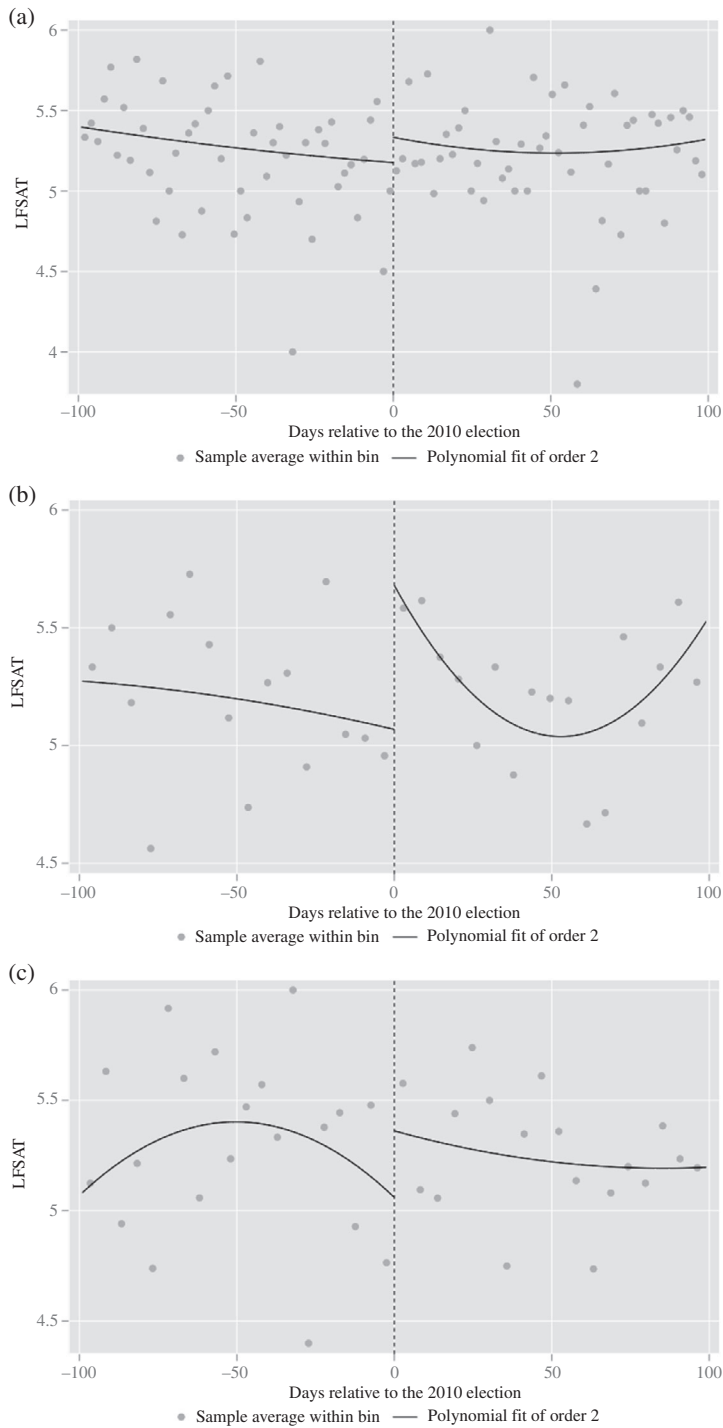


FIGURE 6. The effect of being a Liberal Democrat supporter on subjective wellbeing before and after the 2010 general election. *Notes:* The top panel shows all individuals who identify as Liberal Democrat supporters. The middle panel shows individuals who identify strongly as Liberal Democrat supporters. The bottom panel shows individuals who constantly vote for the Liberal Democrat party.

TABLE 6  
THE IMPACT OF A LIBERAL DEMOCRAT PARTY WIN ON WELLBEING AFTER THE 2010 GENERAL ELECTION, RDIT ESTIMATES

	All LD (1)	Strong LD (2)	Constant LD (3)	All LD (4)	Strong LD (5)	Constant LD (6)	All LD (7)	Strong LD (8)	Constant LD (9)
days > 6 May 2010	0.277 (0.237)	0.909* (0.477)	1.128** (0.465)	0.285 (0.235)	0.883* (0.473)	1.109** (0.467)	0.265 (0.221)	0.702 (0.440)	0.968** (0.453)
Government office region fixed effects				Yes	Yes	Yes	Yes	Yes	Yes
Controls							Yes	Yes	Yes
Robust <i>p</i> -value	0.273	0.07	0.01	0.261	0.092	0.012	0.244	0.129	0.021
Bandwidth estimate ( <i>h</i> )	52	49	28	52	48	28	52	51	28
Observations	2749	716	935	2749	716	935	2749	716	935

*Notes*

The dependent variable in all columns is *LFSAT*. RDIT estimates using a second-order polynomial with optimal bandwidth (*h*) calculated as in Calonico *et al.* (2014). The running variable is time, measured in days, where the cut-off (0) is the 2010 general election (6 May). Columns (4)–(6) include only government office region fixed effects. Columns (7)–(9) introduce controls for age, age squared, log monthly income, employment status, in addition to government office region fixed effects. Robust standard errors are clustered by constituency and reported in parentheses.

\*, \*\*, \*\*\* indicate  $p < 0.1$ ,  $p < 0.05$ ,  $p < 0.01$ , respectively.

In order to support this identification strategy as a valid approach in elucidating a causal effect, we subject the RDiT estimates to a number of sensitivity checks. We change the second-order polynomial to higher- and lower-order values, and the results remain qualitatively the same (presented in Table A7 of the Online Appendix). Next, we conduct a placebo test to ensure that it is the election that creates the discontinuity rather than some other event that would systematically drive our results. Here, we look for a discontinuity 1 year prior to the 2010 election; that is, the placebo cut-off date is now 6 May 2009. The results are reported in Table A8 of the Online Appendix, and we find no evidence of a significant discontinuity for our placebo cut-off, as expected.<sup>25</sup> Further to this, we assess how other party supporters were affected before and after the 2010 election. We consider the Labour party to have ‘lost’ the election as they became the opposition party. Therefore we expect a negative effect on their supporters’ subjective wellbeing due to electoral defeat. Using the same RDiT approach, shown in Table A9 of the Online Appendix, we find some evidence that this is the case. The estimates do, however, produce a persistent negative coefficient, as expected. The lack of a strong effect may be because the impact of winning on overall life satisfaction is more salient than that of losing.

As a further check on the sensitivity of the results advocated by Hausman and Rapson (2018) of RDiT strategies, we follow the approach in Barreca *et al.* (2011) and perform a doughnut RDiT. We do so to explore whether the results are sensitive to the actual forming of a government rather than the surprise of initial electoral success. After the election that resulted in a hung parliament, there were 6 days of negotiations between the political parties in order to form a majority government. The Conservative and Liberal Democrat parties came to an agreement and announced that they would form a coalition government. Therefore we shift our cut-off point to 12 May when the coalition was publicly announced; that is, we drop all observations between 6 May and 11 May. The results are presented in Table A10 of the Online Appendix. The findings remain robust for individuals who consistently report being Liberal Democrat voters, while no significant effect is found for strong Liberal Democrat voters.

Overall, our results provide evidence that individuals who have consistently voted for the Liberal Democrats see a positive and significant effect on their overall life satisfaction after their party is unexpectedly successful at the ballot box in an election.

## VI. CONCLUSIONS

This paper has contributed to the growing literature depicting the relationship between politics and subjective wellbeing. Analysing individual longitudinal data from Great Britain, we aimed to ascertain the causal impact of both local and national election results on two measures of subjective wellbeing. We constructed a novel dataset that matches constituency-level information, including precise party vote shares, to a wealth of individual-level voting preferences and socioeconomic information. This allowed us to explore the effects of election outcomes at both the national and constituency levels.

Our paper appeals to several literatures. First, the paper contributes to the growing debate on the effects of macroeconomic and national outcomes on subjective wellbeing. Second, the analysis contributes to the literature relating to the impact of identity on subjective wellbeing. Moreover, this paper contributes to our understanding of the determinants of subjective wellbeing, which is increasingly important given the use of such measures in policy-making.

Generally, we found evidence that individuals who support the incumbent at the national level or the local level report a higher level of life satisfaction and psychological wellbeing. Interestingly, the results indicate that there are differences across males and females, with distinct relationships across the impact of national- and constituency-level results. For example, for males, supporting the incumbent at the constituency level exerts a positive impact on psychological wellbeing; however, this fails to have a statistically significant impact on psychological wellbeing in females. Further, we provide evidence that there are even larger effects on our outcome measures when the magnitude of the election win for the supported party is larger. We provide some insight into how this effect might operate. Specifically, we provide empirical evidence for the monetary rents mechanism; individuals who support the incumbent party have higher levels of subjective wellbeing because they feel more financially prosperous. The results also potentially point towards the heterogeneity in the results observed for subjective wellbeing being driven by the non-monetary channel, given that the results for the monetary channel appear consistent across genders. As a result, we argue that the non-monetary channel has differential impacts across gender and the subjective wellbeing measures. This non-monetary channel remains an area that future work should explore, especially considering growing political polarization in Great Britain. Generally, our results confirm that national events, such as election outcomes, can have significant impact on individuals' wellbeing, and that these are even more prevalent when moral and political values are involved. Although we find some evidence of the monetary mechanism, we argue that many factors are simultaneously impacting individual subjective wellbeing, and as such, further experimental evidence is required to identify and quantify the precise mechanisms through which election outcomes influence subjective wellbeing.

We address potential endogeneity concerns by implementing a regression discontinuity in time design around the 2010 election to explore the relationship using a quasi-natural experiment. Once again, the findings suggest that supporting the incumbent political party has a positive impact on individual overall life satisfaction, consistent with the fixed effects analysis.

Our findings have important implications for wider society. Our results indicate that election results and voter preference have an impact on a range of individual subjective wellbeing measures. Consequently, given the potential increase in individual subjective wellbeing as a result of a successful election result, individuals should be encouraged to turn out and vote for their preferred political party. More widely, this highlights the importance of policies that aim to promote political engagement across society, given the potential benefits of this engagement at the individual level.

#### ACKNOWLEDGMENTS

This paper benefited from comments from Sarah Brown, Georgios Efthyvoulou, seminar participants at the University of Sheffield, City University London and the 2019 European Society for Population Economics, and three anonymous referees. We are grateful to the Data Archive at the University of Essex for supplying the data. Understanding Society and BHPS are funded by the Economic and Social Research Council and various Government Departments, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by NatCen Social Research and Kantar Public. The research data are distributed by the UK Data Service. Any remaining errors are our own.

## NOTES

1. Moreover, a growing body of literature considers the exogenous impact of events that have a lasting impact on political stances. For example, Oswald and Powdthavee (2010) report that voters who have daughters are more likely to support left-wing parties, whereas those with sons are more likely to align themselves to right-wing parties, while Powdthavee and Oswald (2014) present evidence that a windfall of money, in the form of a lottery win, makes individuals more likely to support a right-wing party. Moreover, Giuliano and Spilimbergo (2014) find that people born in recessions favour more income redistribution and tend to vote for left-wing parties.
2. In the UK, a parliamentary constituency is an electoral region that comprises of approximately 72,000 individuals. In the 2015 election there were 650 constituencies.
3. Full details of the data are documented in Fumagalli *et al.* (2017).
4. Due to the different political landscape in Northern Ireland, we remove all individuals from Northern Ireland from the analysis and therefore focus on Great Britain rather than the United Kingdom.
5. We have also used the caseness transformation of the GHQ, which collapses the twelve questions into binary outcomes that are then summed, resulting in a measure based on a twelve-point scale. This gives results similar to those presented in this paper.
6. From 2010 to 2015, Liberal Democrat and Conservative supporters take value 1 because of the coalition government.
7. An alternative specification would be to separate the omitted group into two: those who do not support a political party, and those who support a non-incumbent political party. When we specify the omitted group to be those with no political party, we find that those individuals who support a political party, but not the incumbent, and those who support the incumbent political party, report higher levels of subjective wellbeing compared to the omitted group. This positive effect is indeed greater for those who support the incumbent. This finding is in line with the literature on civil engagement, whereby individuals report higher levels of wellbeing from engaging in the political process (Dolan *et al.* 2008a).
8. We acknowledge that an alternative specification would be to introduce an interaction between gender and our political variables. We argue that splitting the sample by gender is preferred given that it is more flexible and it is plausible that the other control variables have differential impacts on the outcome of interest. Simply including a single interaction term would allow a differential effect over gender only for the political measures, while, however, holding all other factors constant.
9. For an extensive discussion relating to the determinants of individual wellbeing, see, for example, Dolan *et al.* (2008b).
10. In the initial analysis, we cannot isolate the effect of ‘winning’ from supporting the incumbent in the years after an election, therefore we claim associative evidence only in this context. In Section 6, we seek to provide causal evidence on the effect of winning using a quasi-experimental framework.
11. Table B1 in the Online Appendix presents the results relating to basic controls before adding the political variables. These results are generally in line with the existing literature, with marital status, income and employment status exerting statistically significant associations with both GHQ and life satisfaction. These results remain qualitatively similar—that is, with similar magnitude, sign and significance—once the political support measures are included.
12. We have also tried interacting support at the national and constituency levels and find that the interaction between these two variables fails to have a statistically significant impact on overall life satisfaction and GHQ.
13. Variation in whether or not an individual supports the incumbent party, at either the national or the local level, can arise in one of two ways. First, the party in power changes following an election. Second, the individual changes their political allegiance. Arguably, the first way is more exogenous, and as a robustness check we have restricted our sample to partisans only, that is, those individuals who do not change the political party they support (hence identifying variation comes from election results). The results are presented in Table A5 of the Online Appendix, and we find qualitatively similar results in terms of sign and magnitude.
14. Despite the GHQ usually being considered in the aggregate form, some studies have previously considered responses to the individual questions of the GHQ in order to explore the potential channels through which political outcomes impact psychological wellbeing; see, for example, Metcalfe *et al.* (2011) and Powdthavee *et al.* (2019). As presented in Tables A3 and A4 of the Online Appendix, in line with these two papers, it appears that there are no consistent patterns to the impacts of political outcomes on the individual GHQ questions. We further explore the impact of election outcomes on the positive and negative aspects of mental health. In line with Hu *et al.* (2007), we split the GHQ questions into positively and negatively worded questions. The results suggest that the local results impact both the positive and negative domains for males, while supporting the incumbent at the national level impacts on the positive domain for females only.
15. The number of seats is standardized in order to more easily interpret the results.
16. The breakdown by gender can be found in Figure A9 of the Online Appendix.
17. We acknowledge the extensive literature relating to economic voting, where by voters reward the incumbent for good times and punish it in bad times; see, for example, Lewis-Beck and Nadeau (2011), and Duch and

- Stevenson (2008). In this setting, subjective prosperity may capture the general economic climate and be related to supporting the incumbent party.
18. We have also repeated the results in Table 2 using SFP as the outcome, and our results are in line with what we present in this subsection.
  19. We repeated our mechanism estimates using the RDIT design in the next section, and found no significant effects. Actually, this is not necessarily unexpected. The context and design are more suited to assessing the non-monetary mechanism as we look at the only short-term impact of a shock electoral win, and we do provide some support for this.
  20. We have repeated the strategy on a previous election and a subsequent election using the corresponding supporters of the winning party. However, it is important to note that doing so violates a crucial identifying assumption: that the outcome of the election was unknown. For previous elections, people generally knew who the largest party would be but the size of the victory was of course unknown. Our estimates are positively signed but statistically insignificant.
  21. Strong voters are defined using answers from the survey question ‘Strength of support for stated party’, where we code a dummy variable 1 for respondents who reply ‘Very strong’ or ‘Fairly strong’, and 0 otherwise. In addition, constant voters are defined as individuals who report a preference for the Liberal Democrat party 80% of the time or more in the observed data.
  22. To test this assumption, we follow the method in Powdthavee *et al.* (2019). We create a binary dependent variable that takes the value 1 if the respondent was interviewed after the 2010 general election, and 0 otherwise. Our explanatory variables are binary indicators for the three groups of Liberal Democrat supporters (all, strong and constant voters) and estimate a linear probability model (LPM). We find some weak evidence that members of the first group, all Liberal Democrats, are more likely to be interviewed in the days after the election. This is consistent with the idea that people are more likely to identify as Liberal Democrats after their electoral success. As expected, and consistent with our discussion, when we look back at the data to identify the strong and constant Liberal Democrat supporters, we find that neither group is any more or less likely to be interviewed after the election. The results of this exercise are shown in Table A6 of the Online Appendix.
  23. We repeat the estimation using the GHQ and the subquestion relating to happiness as outcome variables, and find positive but not statistically significant effects. Results relating to the GHQ index are presented in Table A11 of the Online Appendix.
  24. When a set of individual-level characteristics is included, the results remain qualitatively the same. That is, we estimate  $LFSAT_i = \alpha + \rho\tau_i + \gamma_1 days_i + \gamma_2 days_i^2 + \gamma_3 X_i + \varepsilon_i$ .
  25. The polling data show an increase in the vote share for the Liberal Democrats around 14 April 2010. To ensure that the supporters did not experience the happiness shock at this stage, we set our cut-off to this date and repeat our analysis. The results, available on request, show no significant effect.

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## SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:

- Figure A1** Overall Life Satisfaction
- Figure A2** Overall Life Satisfaction: Male
- Figure A3** Overall Life Satisfaction: Female
- Figure A4** Psychological Well-being—GHQ
- Figure A5** Psychological Well-being—GHQ: Males
- Figure A6** Psychological Well-being—GHQ: Females
- Figure A7** Spatial distribution of *LFSAT* by parliamentary constituency
- Figure A8** Spatial distribution of *GHQ* by parliamentary constituency
- Figure A9** Event study: breakdown by gender
- Table A1** Definition and descriptive statistics for all main covariates
- Table A2** UK Governments and parliamentary seats
- Table A3** Well-being and winning: GHQ by domain type
- Table A4** Well-being and winning: Unpacked GHQ
- Table A5** Relationship between winning and subjective well-being amongst partisan supporters
- Table A6** Predicting probability to be interviewed after the 2010 general election: LPM regressions
- Table A7** The impact of a Liberal Democrat party win on well-being after the 2010 general election, RDiT estimates, robustness checks
- Table A8** RDiT placebo test
- Table A9** The impact of a Labour party loss on well-being after the 2010 general election, RDiT estimates
- Table A10** The impact of a Liberal Democrat party win on well-being after the 2010 general election, Donut RDiT estimates
- Table A11** The impact of a Liberal Democrat party win on well-being after the 2010 general election, dependent variable is GHQ
- Table B1** Determinants of Well-being