

# Terror Headlines and Voting\*

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## Abstract

By combining data on terror news and individual political preferences, this paper finds that headlines about ISIS and terrorism in the context of the Syrian crisis increased the support for right-wing populism in England for the period 2013 to 2019.

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# 1 Introduction

The recent war in Syria has had widespread effects, including the triggering of one of the most significant refugee crises in Europe. The influx of refugees has led to growing public concerns and anti-immigrant sentiment (?), and has contributed to a rise of support for far-right and right-wing populist parties in several European countries. For example, ? and ? find evidence that exposure to refugees, measured by the share of refugees in a locality, increases the voting shares for far-right parties.<sup>1</sup>

In this paper, we examine a new channel through which the refugee crisis leads to growing support for right-wing populism: the exposure to terror news. Specifically, we investigate how news coverage of ISIS and terror in the context of the Syrian crisis has impacted political support for the UK Independence Party (UKIP) – the main right-wing populist party in England.

We focus on the period 2013 to 2019, a time when UKIP witnessed first a rapid and substantial surge in consensus and then a progressive decline. In 2014, UKIP started gaining importance thanks to some success in local elections but especially by winning a conspicuous amount of seats in the European Parliament Elections. In the 2015 general election – at the peak of its political success – UKIP obtained 12.6% of the total votes. The popularity and support for UKIP continued until mid-2016, when the UK voted for leaving the European Union. After then, UKIP went into a period of progressive decline, marked by frequent changes in leadership.

Drawing online information from three outlets spanning the political spectrum in England (BBC, the Guardian and the Daily Mail), we develop a measure – the Terror News Index (TNI) – which is computed daily and provides information on the relative frequency of news on ISIS and terrorism in the context of the Syrian crisis. We focus on these type of news because refugees and terrorism are often correlated issues in the minds of the public.<sup>2</sup> At the same time, the Syrian civil war has been the salient event in terms of the refugee crisis.

We then merge this index with individual level panel data from Understanding Society, the UK Household Longitudinal Study (UKHLS). These data allow us to model the choice of supporting UKIP as a function of TNI using a fixed effect model, with the impact of terror news on political support being identified through within-individual variation of TNI. Our baseline result shows that an interquartile increase of TNI results in a 3.6% higher probability of supporting UKIP. However, the estimated effect varies substantially across

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<sup>1</sup>There is growing literature on the effects of immigration on voting, see for example ? for the UK, ? for France and ? for Austria. See ? for a review of the impacts of refugees on political and economic outcomes.

<sup>2</sup>For example, a Pew Research Center survey found that in eight out of the ten European nations surveyed, the majority of respondents believe that the inflow of refugees increases the likelihood of terrorism in their country (?).

groups, and is particularly large among UK-born older people, the unemployed and individuals with relatively low levels of education.

Our paper contributes to different literature strands. First, we contribute to studies on the role of media on public opinions and attitudes (e.g., ?, and ?) and voting behaviour (e.g., ???, and ?). Our study also relates to papers examining the link between media reporting of crimes, immigration and the effect on voting behavior (e.g., ?, and ?).

## 2 Data and Methodology

Our analyses focuses on England in the period 2013-2019. The data used in our analysis comes from two sources, the Internet Archive and Understanding Society. We obtained information on the outcome of interest – individuals’ political support for UKIP – from Understanding Society, a nationally representative longitudinal survey. The survey is conducted throughout the year, with participants being interviewed with an interval of about 12 months between two consecutive waves. This structure is ideal to our scope, as it provides a longitudinal sample of individuals, continuously interviewed once per year, and uniformly distributed across the days of the year. Our sample covers Waves 5, 6, 7, 9 and 10 and consists of 38,776 individuals and a total of 106,824 observations (i.e., participants are observed on average 2.75 times).<sup>3</sup> We construct the variable for UKIP political support based on the questions “which political party closest to” and “party would vote for tomorrow”. We define a binary variable equal to 1 if individuals reply UKIP to either of the two questions.<sup>4</sup> We also define binary indicators for political support to other parties, which we use in robustness tests. We then gather additional characteristics from the survey that are used as control variables in the analyses. Table 1 shows the summary statistics of our sample, by political support. Characteristics of UKIP supporters are quite different from individuals supporting other parties, especially in terms of gender, ethnicity and education.

We gather daily data on news on terror through the snapshots of the news pages available through the Internet Archive (<https://web.archive.org>). To obtain data that encompass a representative readership in England – both in terms of size and political spectrum – we scrape all daily online headlines and lead paragraphs of the main news pages of the BBC, the Guardian and the Daily Mail websites. Across the three sources and for each day, we code as terror news the articles concerning ISIS and terrorism that are related to the Syrian crisis. We do so by selecting the headlines and lead paragraphs that mention the keywords “Syria(n)” or “refugee”, and “IS(IS)”, “ISIL”, “Islamic State” or “terror” in the headlines.

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<sup>3</sup>Questions on political preferences are not collected in Wave 8, which is thus excluded from the analysis.

<sup>4</sup>Our definition of UKIP political support is in line with that of ?, although in their case they also include the “other” parties besides UKIP. We test the robustness of our results to the definition of ? in Table A3 of Appendix A.

We then define our key variable – the Terror News Index (TNI) – as the proportion of the daily number of terror news to the total daily number of news.<sup>5</sup> For days when there are no news on terror across the three outlets, TNI is equal to 0.

Table 1: Summary Statistics - Individual Characteristics, 2013–2019

	UKIP	Conservative	Labour	Lib. Dem.	Other	No Party	All
Female (D)	0.44 (0.50)	0.52 (0.50)	0.56 (0.50)	0.57 (0.50)	0.57 (0.49)	0.59 (0.49)	0.55 (0.50)
Age	54.70 (16.87)	55.12 (17.46)	47.24 (17.55)	52.46 (17.42)	44.30 (16.59)	44.21 (16.98)	49.70 (17.88)
Born in the UK (D)	0.96 (0.21)	0.90 (0.30)	0.75 (0.43)	0.88 (0.32)	0.88 (0.33)	0.85 (0.36)	0.84 (0.37)
Ethnicity: White (D)	0.98 (0.15)	0.92 (0.28)	0.66 (0.48)	0.92 (0.28)	0.87 (0.34)	0.82 (0.39)	0.81 (0.40)
Married (D)	0.71 (0.45)	0.73 (0.44)	0.63 (0.48)	0.70 (0.46)	0.59 (0.49)	0.59 (0.49)	0.66 (0.47)
Number of Children	0.37 (0.81)	0.38 (0.80)	0.57 (1.00)	0.43 (0.83)	0.43 (0.86)	0.58 (0.98)	0.49 (0.92)
Educ: University Degree (D)	0.21 (0.41)	0.42 (0.49)	0.42 (0.49)	0.59 (0.49)	0.48 (0.50)	0.26 (0.44)	0.40 (0.49)
Educ: A-level (D)	0.23 (0.42)	0.20 (0.40)	0.20 (0.40)	0.16 (0.37)	0.22 (0.41)	0.24 (0.43)	0.21 (0.41)
Educ: GCSE or Other Qualifications (D)	0.41 (0.49)	0.29 (0.45)	0.24 (0.43)	0.18 (0.38)	0.24 (0.43)	0.36 (0.48)	0.28 (0.45)
Educ: No or Missing Qualifications (D)	0.15 (0.36)	0.10 (0.29)	0.13 (0.34)	0.06 (0.25)	0.06 (0.23)	0.15 (0.36)	0.12 (0.32)
Unemployed (D)	0.04 (0.20)	0.02 (0.12)	0.05 (0.22)	0.02 (0.15)	0.06 (0.24)	0.07 (0.25)	0.04 (0.20)
Monthly Income (log £)	6.94 (1.40)	7.20 (1.46)	6.83 (1.81)	7.19 (1.52)	6.79 (1.87)	6.69 (1.82)	6.94 (1.69)
Live in Rural Areas (D)	0.24 (0.43)	0.28 (0.45)	0.12 (0.32)	0.26 (0.44)	0.21 (0.41)	0.16 (0.36)	0.19 (0.40)
Avg. Number of Waves	3.41	3.56	3.28	3.53	3.37	2.97	3.34
Number of Observations	6,408	31,304	38,746	7,296	5,784	17,286	106,824

*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

(D) indicates dummy variables. Standard deviations are in parentheses.

Married (D) is a binary variable that takes a value of one if the individual is married/civil partner or living as couple, and zero otherwise.

Foreign-born (D) is a binary variable that takes a value of one if the individual is not born in the UK, and is zero otherwise.

Educ: Degree (D): university or higher degree or other higher degree; Educ: A-level (D): A-level or similar; Educ: GCSE or Other Qualifications (D): GCSE or similar qualifications.

Monthly Income (log £) is the individual monthly income expressed in logs.

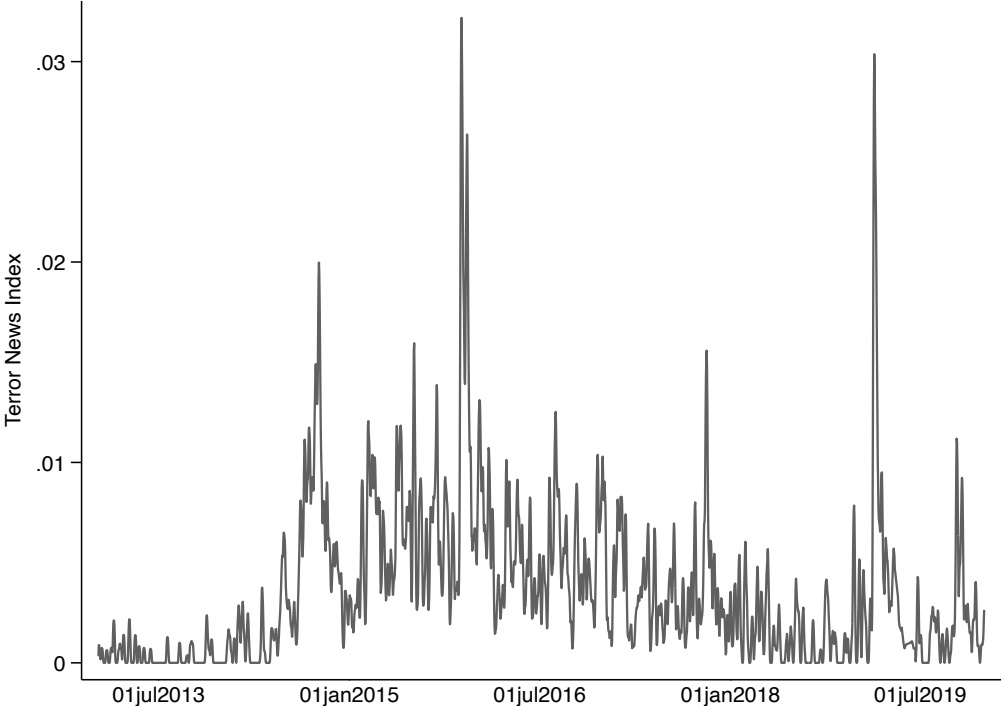
Avg. Number of Waves is the average number of waves respondents appear in the sample.

Figure 1 shows the evolution of TNI for the period of interest. The value of the index rises around the end of 2014, at a time the Islamic State group was at the height of its expansion,

<sup>5</sup>The news are summed across the three sources of data.

having occupied large parts of Syria and Iraq. The TNI declines after 2016, experiencing some peak value at the end of October 2019, around the death of the Islamic State group’s leader al-Baghdadi, which marks the fall of ISIS.

Figure 1: Terror News Index



*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

The figure represents a locally weighted regression of the Terror News Index (TNI) over the time period covered by the sample (bandwidth 0.005). TNI is defined as the daily number of headlines about the Syrian crisis that mention ISIS/terror over the daily number of headlines. TNI is equal to 0 for days with no terror news.

We then merge the microdata with the news on terror by matching the date of TNI with the interview date of Understanding Society. In our framework, we assume that individuals’ preferences are influenced by the latest news, which we define as the news of the previous day. In other words, if an individual is interviewed, say, on a Tuesday, the relevant TNI for that individual would be that of Monday.

We estimate the effect of the Terror News Index on UKIP political support using the following fixed-effects linear probability model:

$$\text{UKIP}_{it} = \alpha + \beta \text{TNI}_t + \gamma \mathbf{X}_{it} + \delta \mathbf{Z}_t + a_i + \varepsilon_{it} \quad (1)$$

$\text{UKIP}_{it}$  is a binary variable equal to one if the respondent would vote for, or feels closest to, UKIP and equal to zero otherwise and  $\text{TNI}_t$  is the Terror News Index at time  $t$ .  $\mathbf{X}_{it}$  contains time-varying individual characteristics such as marital status, number of children, unemployment and income; it also contains interaction terms between the year dummies and time-invariant characteristics such as gender, age and education, plus interaction terms between the year dummies and the UK Government Office Region of residence dummies.  $\mathbf{Z}_t$  contains time controls, including a linear time trend, year fixed effects, month fixed effects and day-of-the-week fixed effects. It also includes the UK Daily Economic Policy Uncertainty (EPU) Index developed by ?.<sup>6</sup> Crucial to our identification strategy is  $a_i$ , capturing the individual unobserved effect. We estimate Equation (1) using fixed effects, meaning that we identify the effect of interest leveraging within-individual variation in UKIP political support and in the daily value of TNI, thereby purging out any time-invariant unobservable factors correlated with the choice of supporting UKIP.

### 3 Results

Table 2 shows baseline estimates of the regression model in Equation (1). The specification in column (1) is an OLS bivariate regression with no control variables. Column (2) includes individual and year fixed effects, while in column (3) we also add the remaining time controls contained in  $\mathbf{Z}_t$ . We then add the individual characteristics  $\mathbf{X}_{it}$ : in column (4) we only add time-varying controls; in column (5) we also add time-invariant controls interacted with year fixed effects. Column (5) is our preferred specification, which we will use throughout the remaining analyses. Finally, in column (6) we estimate the specification in column (5) on a balanced sample, specifically the subset of individuals who appear continuously in waves 5 to 9.<sup>7</sup> For ease of comparing estimates across the various specifications, we also include the standardized coefficient of TNI in square brackets.

The OLS estimate of TNI is positive and statistically significant. This is purely a correlation and might be affected by unobservable individual/time confounding factors. When we estimate with fixed effects in columns (2) to (5), the estimate of TNI is smaller (by nearly 50%

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<sup>6</sup>The UK Daily EPU Index is constructed using articles from a range of UK newspapers that contain three groups of terms: economic or economy, uncertain or uncertainty, and spending, deficit, regulation, budget, tax, policy, or Bank of England. The aim of including this variable is to control for daily events that might be correlated to terror news and could potentially affect political preferences – these might include factors such as policies, but also aspects related to political campaigns. The inclusion of the EPU Index is therefore helpful to reduce possible endogeneity concerns linked to the role of daily confounding factors.

<sup>7</sup>The number of observations in Wave 10 is only 5,259, hence including this wave will make the balanced sample too small.

Table 2: Effect of the Terror News Index on UKIP support

	(1)	(2)	(3)	(4)	(5)	(6)
Terror News Index	.574*** (.124) [.014]	.311** (.124) [.008]	.331*** (.126) [.008]	.329*** (.126) [.008]	.325*** (.126) [.008]	.365** (.168) [.009]
Married (D)				.011** (.005)	.005 (.005)	-.004 (.007)
Number of Children				-.000 (.002)	-.002 (.002)	-.002 (.003)
Unemployed (D)				.012** (.005)	.011** (.005)	.013* (.007)
Monthly Income (log £)				.001* (.001)	.000 (.001)	.001 (.001)
Live in Rural Areas (D)				-.000 (.008)	-.003 (.008)	.004 (.010)
Individual and Year F.E.		✓	✓	✓	✓	✓
Additional Time Controls			✓	✓	✓	✓
Additional Individual and Regional Controls					✓	✓
Balanced Sample						✓
N. Obs.	106,824	106,824	106,824	106,824	106,824	52,084
N. Indiv.		38,776	38,776	38,776	38,776	13,021
R <sup>2</sup>	.00	.02	.02	.02	.03	.03

*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>. Standard errors are clustered at the individual level. Standardized estimates are presented in square brackets.

The dependent variable is a binary variable equal to 1 if an individual supports or would vote for UKIP, and equal to 0 if they support or would vote for other parties or would not vote for any party (see text for detail).

Terror News Index is the daily number of headlines about the Syrian crisis that mention ISIS/terror over the daily number of headlines. The Index refers to the day before individuals are interviewed.

Column (1) is a bivariate least squares regression. Columns (2)-(5) are fixed effect regressions including individual and year fixed effects.

Column (4) includes only the subsample individuals who appear in all waves 5, 6, 7 and 9.

Additional Time Controls includes a linear time trend, indicators for month and day of the week, and the Economic Policy Uncertainty Index.

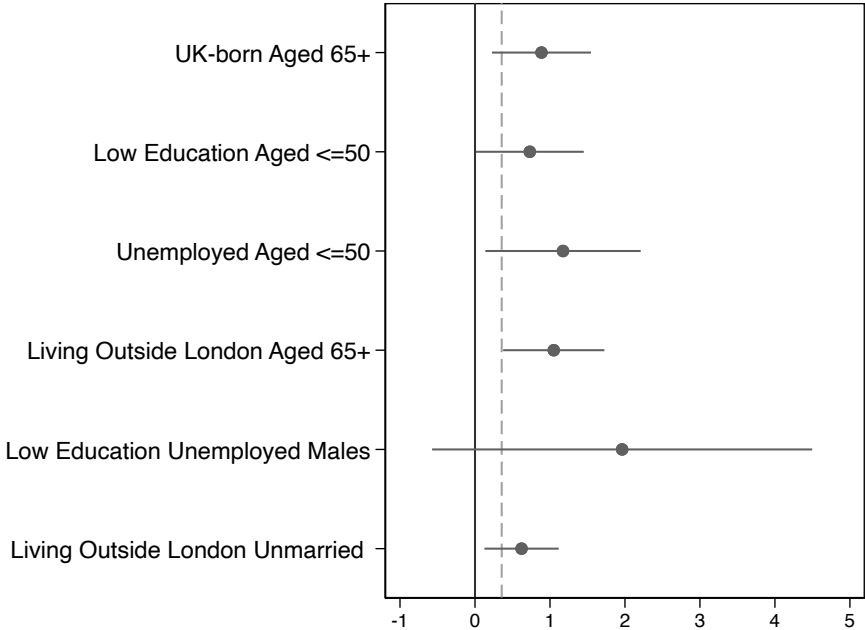
Additional Individual and Regional include: gender  $\times$  year fixed effects; age  $\times$  year fixed effects; education  $\times$  year and region  $\times$  year fixed effects.

\*  $p < 0.10$ .; \*\*  $p < 0.05$ .; \*\*\*  $p < 0.01$ .

in terms of standardized size), but still positive and statistically significant. The coefficient 0.325 in column (5) can be interpreted as follows: an interquartile increase of TNI (corresponding to a change between 0 and 0.0066) would result in a 3.6% increase of the probability of supporting UKIP (from 0.0587 to 0.0608). An alternative way to interpret our result is to calculate the difference in UKIP support corresponding to the highest and lowest values of TNI (0.053 and 0, respectively). The highest recorded value of TNI corresponds to news recorded on November 19<sup>th</sup> 2015 and related to ISIS terror attacks in Paris. The change in TNI from the lowest to the highest value leads to an increase in UKIP support from 0.0587 to 0.0759 (corresponding to about 26.5% of the mean value of 0.06).

Results in Table 2 refer to the representative individual in the sample; however, there are substantial differences depending on individuals' characteristics. Figure 2 shows the results of our heterogeneity analysis, where we estimate our preferred specification on subgroups defined on selected individual characteristics. For example, the estimated effect for individuals aged above 65 and born in the UK is 0.887, more than double the baseline. For this subgroup, an interquartile increase of TNI would make the probability of supporting UKIP going from 0.0892 to 0.0951 % – a 6.6% increase. The estimated effect is particularly large (1.962) on the subgroup of low educated unemployed males, albeit the estimate is significant at 10% level, most likely due to the small sample size of this subgroup.

Figure 2: Heterogeneity Analysis



Source: Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

The figure shows the point estimates and 95% confidence intervals of the regression column (5) of Table 2 different subsamples. The dashed line represents the point estimate from column (5) of Table 2. Low Education includes individuals with GCSE or other qualifications and individuals with no or missing qualifications. Unemployed includes individuals who report being unemployed at least once in the sampled period.

Appendix A contains additional results that provide further support to our benchmark findings. Table A2 provides results from modelling the probability of supporting other parties; Table A3 and Table A4 provide results of specifications using alternative definitions of TNI and UKIP political support, respectively; Table A4 explores the sensitivity to the timing of



the news, testing for potential role of leads and lags of TNI; Figure [A1](#) presents the results of a randomization inference exercise; Table [1](#) provides descriptive evidence on how political intentions map into actual voting. Appendix B includes a description about the derivation of the sample and the construction of the variables.

## 4 Conclusions

Our paper sheds light on the role of media in influencing public opinions and voting behavior. Previous evidence based on [?](#) shows that the public associate terrorism with Syrian refugees. [?](#) and [?](#) show that voters' anti-immigrant attitudes are driven by the physical presence of refugees. Our study provides novel suggestive evidence that news themselves can increase support for right-wing populism. One avenue for further research would be the study of the potential mechanisms through which news influence political support, including news' tone and bias, and trust in media.

# Appendix A

Table A1: Structure of the Sample

<i>Year</i> <i>Wave</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>	<i>2019</i>
Full Sample							
5	14343	12393	896				
6		12649	10308	812			
7			12507	12407	1106		
9					12094	10878	1172
10							5259
Balanced Sample							
5	7127	5493	401				
6		7257	5374	390			
7			7162	5470	389		
9					7163	5377	481

*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

The table shows the cross-sectional sample in each wave, both for the full and balanced samples. The size of the full sample is 106,824 and of the balanced sample is 52,084.

Table A2: Effect of the Terror News Index on Party Support

	UKIP	Conservative	Labour	Lib. Dem.	Other	No Party
Terror News Index	.325***	.384**	-.375*	.141	-.107	-.397**
	(.126)	(.179)	(.197)	(.124)	(.128)	(.181)
	[.008]	[.005]	[-.005]	[.003]	[-.003]	[-.006]
N. Obs.	106,824	106,824	106,824	106,824	106,824	106,824
N. Indiv.	38,776	38,776	38,776	38,776	38,776	38,776
$R^2$	.03	.03	.01	.02	.02	.02

*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

Standard errors are clustered at the individual level. Standardized estimates are presented in square brackets.

The dependent variable is a binary variable equal to 1 if an individual supports or would vote for UKIP, and equal to 0 if they support or would vote for other parties or would not vote for any party (see text for detail).

Terror News Index is the daily number of headlines about the Syrian crisis that mention ISIS/terror over the daily number of headlines. The Index refers to the day before individuals are interviewed.

All regressions include the controls of column (5) of Table 2.

\*  $p < 0.10$ .; \*\*  $p < 0.05$ .; \*\*\*  $p < 0.01$ .

In Table A2, we model the probability of supporting any political party by estimating linear probability models along the lines of Equation (1), using our preferred specification in column (5) of Table 2. There are two key results: first, an increase in the exposure to terror news increase supports also for the Conservative party, although the size of impact, as measured by the standardized coefficient, is somewhat smaller. Second, the increased political support for UKIP and the Conservative comes at the expenses of individuals withdrawing their support to the Labor party, but also draws consensus from individuals who did not express a preference for any political party.

Table A3: Robustness: Alternative definitions of TNI

	(1)	(2)	(3)	(4)	(5)	(6)
Terror News Index – No Extreme Values	.366** (.150) [.008]					
Terror News Index		.404*** (.138) [.010]				
Salient Events (D)		-.001 (.002) [-.002]				
Terror News Index × Salient Events (D)		-.337 (.300)				
Terror News Index – All Terror News			.140*** (.038) [.012]			
Terror News Index – N. Terror News				.005*** (.001) [.013]	.005*** (.001) [.014]	
N. Headlines					.017*** (.005) [.012]	
Terror News Index – Binary Variable						.006*** (.002) [.013]
N. Obs.	105,813	106,824	106,824	106,824	106,824	106,824
N. Indiv.	38,729	38,776	38,776	38,776	38,776	38,776
R <sup>2</sup>	.03	.03	.03	.03	.03	.03

Source: Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15> and The Global Terrorism Database (GTD)

Standard errors are clustered at the individual level. Standardized estimates are presented in square brackets.

The dependent variable is a binary variable equal to 1 if an individual supports or would vote for UKIP, and equal to 0 if they support or would vote for other parties or would not vote for any party (see text for detail).

Terror News Index is the daily number of headlines about the Syrian crisis that mention ISIS/terror over the daily number of headlines. The Index refers to the day before individuals are interviewed.

All regressions include the controls of column (5) of Table 2.

Column (1): Terror News Index – No Extreme Values is the Terror News Index in column(5) of Table 2, excluding the top 1% of the values of the index.

Column (2): Salient Events is the number of terror events linked to ISIS that took place in Syria as reported from the Global Terrorism Database (GTD).

Column (3): Terror News Index – All news is the lagged daily number of headlines about all ISIS/terror (not just related to the Syrian crisis) over the daily number of headlines.

Columns (4) and (5): Terror News Index – N. Terror News is the lagged (log) daily number of headlines about the Syrian crisis that mention ISIS/terror (i.e., the numerator of TNI). Column (4) also includes All Headlines, which is the lagged (log) daily number of all headlines (i.e., the denominator of TNI).

Column (6): Terror News Index – Binary Variable is a binary variable equal to 1 for positive values of TNI, and 0 otherwise.

\*  $p < 0.10$ .; \*\*  $p < 0.05$ .; \*\*\*  $p < 0.01$ .

In Table A3, we provide results of regression analyses using alternative definitions of TNI. In column (1) we exclude extreme values of TNI, specifically the top 1%.<sup>1</sup> This tests aims at understanding whether our results are driven by unusually large values of TNI. The estimates suggest that this is not the case. On a similar vein, in column (2) we explore the importance of salient events related to ISIS/terror. To do so, we access data from the GTD – Global Terrorism Database (<https://www.start.umd.edu/gtd/>) which covers information on terrorists attacks for nearly all countries in the world. Using the GTD, we define a dummy variable “Salient Events” equals to one if at least one terror attack perpetrated by ISIS took place in Syria on a date covered by our sample and 0 otherwise. We then interact this dummy variable with the TNI. The rationale of this test is the following: the TNI covers all news pertaining to ISIS/terror in the context of Syria or the Syrian refugee crisis. As a result, there could be media coverage on terror even on days when there is no actual terror attack or other event taking place in Syria.<sup>2</sup> If the impact of TNI on UKIP support was driven solely by the media coverage of terror attacks, one would expect the interaction between TNI and the Salient Events dummy to be statistically significant. The results in column (2) suggest otherwise. Moreover, the main effect of the Salient Events is also insignificant. This suggests that our estimated effect is driven by media representation of the terror-related events, rather than the events themselves.

In column (3), we extend the definition of terror news (i.e., the numerator of TNI) to all headlines that are related to ISIS/terror but within any context, and not just restricted to the Syrian crisis. The estimate is positive and statistically significant, with a standardized size effect that is slightly larger than the baseline estimates. In columns (4) and (5), we use the log number of terror news as key explanatory variable. The difference between the two specifications is that in column (4) we also include the log number of all headlines (i.e., the denominator of TNI) as explanatory variable. The estimate of terror news is statistically significant in both specifications. From the results in column (4) it transpires that also all headlines are positively related to UKIP support; importantly, however, the coefficient on terror news is very similar across the two specifications, suggesting that the impact of “all news” is not what is driving the impact of the terror news. In column (6) we use a binary definition for the TNI, namely a dummy variable equal to 1 for days when there is at least one terror news and 0 otherwise. The estimate is consistent with our baseline analysis. It also provides an immediate interpretation of the impact of terror news: the probability of supporting UKIP increases by 0.6 percentage points in days when there are terror news, when compared to days when there are no such news.

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<sup>1</sup>Excluding the top 5% of TNI produces a coefficient estimate of 0.703 with a standard error of 0.209, N=101,416.

<sup>2</sup>This can be readily observed in our data, since news on terror appear in about 49% of the dates in our sample, while there are terror attacks in only 19% of the dates.

Table A4: Robustness: Alternative Definitions of UKIP Support

	Closest To	Vote Tomorrow	Including Other	Until Brexit
Terror News Index	.316** (.125) [.008]	.282 (.279) [.006]	.211* (.124) [.005]	.443** (.172) [.011]
N. Obs.	63,747	46,086	184,136	70,233
N. Indiv.	26,601	24,999	48,110	33,688
$R^2$	.02	.04	.03	.01

*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

Standard errors are clustered at the individual level. Standardized estimates are presented in square brackets.

Vote Tomorrow: The dependent variable is a binary variable equal to 1 if an individual replies UKIP to the question 'Party which would vote for tomorrow' and 0 otherwise.

Closest To: The dependent variable is a binary variable equal to 1 if an individual replies UKIP to the question 'Which political party closest to' and 0 otherwise.

Including Other: The dependent variable is a binary variable equal to 1 if an individual supports or would vote for UKIP or for 'Other' party as defined in ? and 0 otherwise. The sample is extended to include also observations from wave 1 to 3.

Until Brexit: The regression model of column (5) of Table 2 is performed on the subset of data that precede 23 June 2016.

Terror News Index is the daily number of headlines about the Syrian crisis that mention ISIS/terror over the daily number of headlines. The Index refers to the day before individuals are interviewed.

All regressions include the controls of column (5) of Table 2.

\*  $p < 0.10.$ ; \*\*  $p < 0.05.$ ; \*\*\*  $p < 0.01.$

In Table A4, we provide results of analyses using alternative definitions of UKIP support. In columns (1) and (2) we construct separate binary variables using the answers to the questions “which political party closest to” and “party would vote for tomorrow”, respectively. The results are broadly consistent with the baseline definition of UKIP support, albeit results for the “party would vote for tomorrow” are not statistically significant. In column (3) the outcome is the probability of supporting UKIP or “Other” parties, i.e., a definition of right-wing support along the lines of ?. This allows us to include also observations from wave 1 to 3, when UKIP was not coded as a separate choice but conflated into the “Other” category. Results show that the effect is still positive, albeit the coefficient is smaller and only significant at the 10%. When restricting our analysis to the period 2013 to mid-2016, i.e., when the UK voted for leaving the EU, the impact of terror news is larger than the baseline.

Table A5: Lags and Leads of TNI

	Lags				Leads		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Terror News Index	.173 (.150) [.004]	.135 (.152) [.003]	.137 (.153) [.003]		.359** (.143) [.009]	.329** (.145) [.008]	.305** (.146) [.008]
Terror News Index t-1	.291* (.153) [.007]	.172 (.166) [.004]	.175 (.167) [.004]				
Terror News Index t-2		.276* (.157) [.007]	.285* (.169) [.007]				
Terror News Index t-3			-.020 (.156) [-.000]				
Terror News Index t-7				.178 (.128) [.004]			
Terror News Index t+1					-.071 (.146) [-.002]	-.134 (.161) [-.003]	-.158 (.161) [-.004]
Terror News Index t+2						.157 (.150) [.004]	.090 (.161) [.002]
Terror News Index t+3							.183 (.147) [.004]
N. Obs.	106,824	106,824	106,824	106,824	106,807	106,797	106,779
N. Indiv.	38,776	38,776	38,776	38,776	38,775	38,774	38,773
R <sup>2</sup>	.03	.03	.03	.03	.03	.03	.03

Source: Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15> and The Global Terrorism Database (GTD)

Standard errors are clustered at the individual level. Standardized estimates are presented in square brackets. The dependent variable is a binary variable equal to 1 if an individual supports or would vote for UKIP, and equal to 0 if they support or would vote for other parties or would not vote for any party (see text for detail).

Terror News Index is the daily number of headlines about the Syrian crisis that mention ISIS/terror over the daily number of headlines. The Index refers to the day before individuals are interviewed.

All regressions include the controls of column (5) of Table 2.

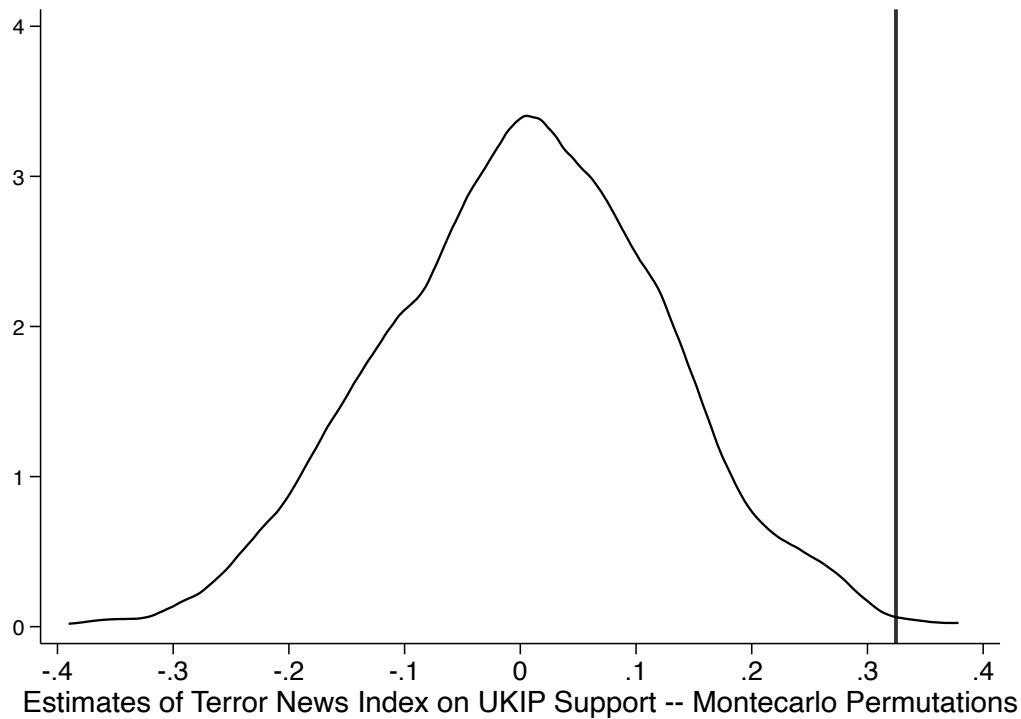
\*  $p < 0.10$ .; \*\*  $p < 0.05$ .; \*\*\*  $p < 0.01$ .

In Table A5, we explore the time impact of TNI. First, we test whether there is a time delay in the news effect (recall that TNI is already measured on the day before the interview). In columns (1), (2) and (3) we add, respectively, one, two and three lags of TNI. For all three specifications, we reject the null hypothesis that the contemporaneous and lagged TNI are jointly equal to 0. Having said that, results suggest that TNI might have a delayed effect, with the second lag having the largest coefficient. In column (4) we test the persistence of the news impact by testing a model that includes a 7-day lag of TNI. The coefficient, albeit positive, is small and statistically insignificant. The conclusion from this test is that terror news appear to have an immediate rather than a persistent impact on UKIP support, possibly consistent with

some form of “availability heuristic” (?). Finally, we perform a falsification test. One would not expect the terror news that are in the “future” to impact today’s political preferences. To test this, in columns (5), (6) and (7) where we add, respectively, one, two and three leads of TNI. The results show that none of the lead coefficients are statistically significant, suggesting that there should be no concern about potential reverse causality between UKIP support and TNI.



Figure A1: The Effect of Terror News Index – Randomization Inference



*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

The density represents coefficient estimates of the regression of column (5) of Table 2 based on 1,000 permutations of the values of the Terror News Index. The vertical line corresponds to the estimate from column (5) of Table 2.

Figure A1 provides the results of randomization inference where we simulate the regression results of our baseline specification in col (5) of Table 2 performing 1,000 random permutations of TNI. Under the null hypothesis of no effect, the random “assignments” of the terror news will inform us about how unusual our estimates are with respect to a reference distribution under our null hypothesis. Figure A1 shows the kernel density of the coefficient estimates of TNI of these 1,000 simulations. In only 5 of these 1,000 regressions the estimate of TNI is – in absolute value – larger than our baseline results. Under the null hypothesis that TNI has a non-zero impact on UKIP support, these results suggests a p-value of  $6/1000=0.006$ .

Table A6: Intended vs Actual Vote

<i>Intended Vote</i>	<i>Actual Vote</i>					
	UKIP	Conservative	Labour	Lib. Dem.	Other	No Party
UKIP	45.22	25.14	10.38	2.73	2.32	14.21
Conservative	3.32	80.74	3.78	2.35	0.71	9.11
Labour	2.15	6.79	68.57	4.68	3.50	14.30
Lib. Dem.	1.72	17.93	15.69	48.79	6.21	9.66
Other	6.01	12.01	26.50	10.25	23.32	21.91
No Party	3.81	14.86	13.00	3.99	3.16	61.19

*Source:* Understanding Society: Waves 5/6/7/9/10. UK Data Service. SN: 6614, <http://doi.org/10.5255/UKDA-SN-6614-15>.

The table shows the cross-tabulation of actual vote and intended vote, as percentage of the latter. The actual vote is based on the 2015 general election. The intended vote includes the latest expression of the intention preceding the general election of 2015. The sample size is 8,749.

Our analysis measures UKIP support based on the questions “which political party closest to” and “party would vote for tomorrow”, which we refer to as voting intentions. One of the reasons for using intentions instead of actual vote is that one can measure political preferences in each wave, while there are much less data on voting, since elections take place only every few years. It is still interesting, though, to explore how much intentions map into actual vote, and this is what we do in Table A6. Intentions are measured in the last wave before the general election of 2015, while actual vote correspond to answers to the question “party voted for in last general election” and is measured in the earliest wave between 7 May 2015 and 8 June 2017 (i.e., in between the last two general elections). We focus on the 2015 general election as this was the time when UKIP had his largest electoral success. The table reports relative frequencies by row, namely, it shows the parties that were voted in 2015 for a given intention expressed before election. The tabulations show that 45% of UKIP supporters followed their intention of voting UKIP in the 2015 general election. The probability of “sticking” with their intentions is lower than that shown by supporters of the two major parties (Conservative and Labour), but not dissimilar to that of the Liberal Democrats.

## Appendix B: Data description and variable construction

### UKIP Support

The dependent variable of political support for UKIP is constructed from two variables of Understanding Society, *vote3* and *vote4*. In *vote3* respondents are asked “If there were to be a general election tomorrow, which political party do you think you would be most likely to support?”, while in *vote4* respondents are asked to specify “Which political party closest to”. The binary variable for political support for UKIP takes the value of one if respondents choose UKIP as a response to either question. The variables *vote3* and *vote4* are not asked in wave 8 of Understanding Society, hence this is excluded from our study. Furthermore, UKIP appears as a separate category in the study only from wave 5, therefore our main analysis excludes waves 1 to 4.

### Terror News Index

The main explanatory variable is constructed by web scraping of all online daily headlines and lead paragraphs of the main news pages of the BBC, the Guardian and the Daily Mail websites for the period 2013-2019. We access the archives of the news pages by making use of snapshots of the news pages through the Internet Archive (<https://web.archive.org>). From the daily articles, pooled from the three sources, we select headlines that have the following two sets of terms in the headline or the lead paragraph: “Syria(n)” or “refugee”, and “IS(IS)”, “ISIL”, Islamic State” or “terror”, which we refer to as terror news. We then sum the number of terror news for each day. The Terror News Index is defined as the proportion of the daily number of terror news relative to the total daily number of all news.

### Other Variables from Understanding Society

- Female (D) is derived from the variable *sex\_dv*
- Age is derived from the variable *age\_dv*
- Born in the UK (D) is derived from the variable *it\_bornuk\_dv* and is a dummy variable equal to one for the category “Born in the UK” and zero otherwise
- Married (D) is derived from the variable *it\_marstat\_dv* and is a dummy variable equal to one for the categories “Married/Civil partner” and “Living as couple” and zero otherwise
- N. Children is derived from the variable *nchunder16*
- Educ: Degree (D) is derived from the variable *hiqual\_dv* and is a dummy variable equal to one for the categories “Degree” and “Other higher degree” and zero otherwise

- Educ: A-level (D) is derived from the variable *hiqual\_dv* and is a dummy variable equal to one for the category “A-Level etc” and zero otherwise
- Educ: GCSE or Other Qualifications (D) is derived from the variable *hiqual\_dv* and is a dummy variable equal to one for the categories “GCSE etc” and “Other qualification” and zero otherwise
- Educ: No or Missing Qualifications (D) is derived from the variable *hiqual\_dv* and is a dummy variable equal to one for the categories “No qualification”, “missing” and “inapplicable” and zero otherwise
- “Unemployed” is derived from the variable *jbstat* and is a dummy variable equal to one for the category “Unemployed” and zero otherwise
- “Monthly Income (log £)” is derived from the variable *fmngrs\_dv*
- The regional dummies are obtained from the variable *gor\_dv*

## UK Economic Policy Uncertainty Index

The UK Economic Policy Uncertainty Index is obtained from [https://www.policyuncertainty.com/uk\\_monthly.html](https://www.policyuncertainty.com/uk_monthly.html). See ? for more details.