Wait and see?

Public opinion dynamics after terrorist attacks

Mariaelisa Epifanio[*]   Marco Giani[†]   Ria Ivandic [‡]

This version: January 11, 2021

Most recent version

Abstract

We use the occurrence of the London bombings in July 7 2005 during the fieldwork period of the British Social Attitudes Survey to analyse the dynamics of public support for measures curbing core freedoms. We observe no changes of public stances in the first week after the attack. Approval of infringements on privacy and procedural rights surges in the following weeks before stabilizing at an increased level in the medium run. Our findings indicate that the public adopts a wait-and-see attitude when it comes to restrictive counter-terrorist measures. These results run against the hypothesis of an over-reactive citizenry driven by fear. People do not seem to spontaneously demand liberticidal policies, but appear to follow elite cues. Ancillary analyses point to the media as the main source of persuasion.

[*]Department of Politics, University of Liverpool. Email: Mariaelisa.Epifanio@liverpool.ac.uk

[†]Department of Political Economy, King's College London . Email: marco.giani@kcl.ac.uk

[‡]Centre for Economic Performance, London School of Economics and Political Science.Email: R.Ivandic@lse.ac.uk

"Arbitrary arrest, indefinite detention without trial, "rendition", suspension of habeas corpus, even torture – who would have thought such things possible?", asked *The Economist* in 2007. In virtually all liberal democracies, a vast array of liberticidal measures has been used as means to respond to the rise of international terrorism (Epifanio, 2011; Neumayer et al., 2014). Like total war, terrorism calls for revising the complex balance between the need of enhancing security and that of limiting restriction of civil rights in favor of the former priority. Unlike wars, however, terrorism is potentially endless. For this reason, while the suspension of these fundamental rights is viewed as necessary in times of threat, many worry that Western democracies might be enduring a permanent restriction of civil liberties.

How did we get there? Many scholars have documented the demand by the public for greater security even at the cost of widespread infringements on individual rights. For example, in the USA, the counterterrorist measures implemented during the Presidency of George W. Bush as an emergency response to the September 11, 2001 terrorist attacks were popular at the time and are still supported by a large share of the American public today (Mueller and Stewart, 2018; Brooks and Manza, 2013).

Yet, is this reversal of attitudes on individual rights a "direct" effect of terrorism? When and how do people change opinion on civil liberties after a terrorist attack? More broadly, does the public lead to liberticide policy change or does it merely follow media and politicians? To make some progress in tackling these questions, this paper studies the dynamics of public reactions to a terrorist shock. We exploit the occurrence of the London bombings in July 7, 2005 (7/7) during the fieldwork period of the British Social Attitudes Survey. The terrorist attack occurred right at the time when most respondents were being interviewed. This allows us to follow week by week how a terrorist event changes public attitudes on illiberal policies.

Our results challenge the notion of an over-responsive public driven by fear. Respondents surveyed in the first week after the attack are no more prone to curtailing core freedoms than respondents interviewed prior to the attack. Public opinion does change, but with a delay. Support for security enhancing policies that reduce privacy rights and procedural guarantees for terrorist suspects occur in the following months, and then stabilize at increased levels. This dynamic suggests that public demands for liberticidal policies are not necessarily a "direct" consequence of terrorism. We then investigate the role of the elite in shaping public attitudes. We find little evidence in favour of politicians' influence. Rather, our findings suggest that the public follows the media on how to best respond to terrorist threats.

The British Social Attitudes Survey in the 2005 edition was carried out between May and November, with the bombings hitting London during the main data collection period. Unlike previous and next editions, the survey included questions on support for counter-terrorist policies that are intended to minimize the risk of future attacks at the cost of harming individual freedoms. If implemented, these measures cut back privacy rights (e.g. tapping phone and email conversations), curb freedom of expression (e.g. banning free speech or demonstrations) and curtail the legal rights of terrorist suspects (e.g. arbitrary detention, fair trial and torture).

We compare respondents' demands for counterterrorist measures before and after the attack. One key contribution is that we monitor changes in attitudes in the *very short run* (first week after the attack), *short run* (first month minus the first week), and *medium run* (second month till the end of the survey). In tracking public opinion dynamics over three time periods, we seek to distinguish, as much as the data permit, the direct effects of the bombings from the indirect channels of influence. Under the assumption that the date of the interview for each respondent is random (balance tests provide evidence in support for this assumption), our empirical strategy comes close to uncovering the causal effect of a terrorist shock.

As noted above, respondents interviewed in the first week after the bombings do not demand for more counter-terrorist measures than those interviewed before the event. This suggests that the direct effect of a terrorist shock on support for restrictions on privacy and procedural rights is rather limited. We provide strong evidence against the possibility that the public is "numbed" by the attacks. People report higher levels of fear of terrorism, greater salience of future attack, more permissiveness for aggressive military actions, and higher generalized trust, all in the very short run.

The public stance on counter-terrorism is best described as a "wait-and-see" attitude. Within a month from the bombings (our short run period), support for liberticidal policies increases relative to the pre-bombings level. The demand for heightened counter-terrorist measures then remains stable until the end of the survey (the medium run). This effect is substantial, equal to approximately 40% of a standard deviation, enough to move the average respondent form relatively opposed to relatively in favor of restrictive policies. This dynamics is not an artifact of our sample composition. Indeed, less educated individuals, who respond most to terrorist events (Brooks and Manza, 2013; Davis and Silver, 2004; Schüller, 2016), do not react in the very short run and change attitudes only from the short run (college graduates, in contrast, exhibit no change at all for the whole period

under study). These results run against the assumption of a panic prone public, who emotionally overreact to terrorism in the immediate aftermath of an attack.

The delayed shift in attitudes points to the role of elites in shaping public opinion. We look at two possible sources of influence: politicians and the media. While we cannot fully rule out the former, we find little support for this hypothesis. Respondents are unaffected by a well-publicized speech on anti-terror measures delivered in August 5, 2005 by then Prime Minister, Tony Blair. In addition, we document that only respondents who voted Conservative in the last legislative elections in May 2005 are willing to curb core freedom following the London bombings. This suggests that the government was unable to persuade its main constituency, Labour voters.

To test for a possible effect of the media, we conduct a text analysis of press coverage on terrorism, civil liberties and counter-terrorist policies before and after the bombings. Our findings show that the first week after the attack is dominated by a description of the events that unfolded on 7/7. A discussion of counter-terrorist policies, in turn, became more pronounced in the short and medium run. While these results are only descriptive, the variation in media coverage matches relatively well the dynamics of public opinion we uncover.

This paper is structured as follows: Section 1 frames public responses to terrorism within the arguments and findings of the scholarly contributions in the field. We provide for a background of the 2005 London attacks in Section 2. We present our data and identification strategy in Section 3 and we describe our main results in Sections 4 and 5. Section 6 discusses the possible mechanisms behind our findings, and the last section concludes.

1   Public opinion following terrorist attacks

This paper speaks to the literature that seeks to uncover the causal impact of terrorism on public opinion using the occurrence of terrorist attacks during the field work period of attitudes surveys.[1] This research design has been used to study the impact of terrorism on voting intentions (Balcells and Torats-Espinosa, 2018), support for restrictive immigration policies (Boomgaarden and

---

[1]Other methodological approaches have been proposed. Hannes and Machin (2014) compare hate crimes in a specific areas prior and after the London bombings and 9/11. Gautier et al. (2009) look at house prices in ethnic neighborhoods in Amsterdam decreased after the assassination of the filmmaker Theo Van Gogh. Elsayed and De Grip and (2013) employ a differences-in-difference design to study how terrorist attacks change the attitudes of Muslim immigrants towards their host country. Böhmelt et al. (2019) use a spatial model to uncover the spill-over effects of terrorism in one country on the attitudes towards immigrants in neighboring countries. Getmansky and Zeitzoff (2014) exploit change in rocket technology to determine the effect of attacks on voting behavior. Montalvo (2011) compares postal and in-person vote to uncover the impact of the 2004 Madrid bombing on electoral choices.

de Vreese, 2007; Castanho Silva, 2018; Finseraas et al., 2011, 2013; Nussio et al., 2019; Solheim, 2019; Legewie, 2013), attitudes towards minorities (Boydstun et al., 2018; Echebarria-Echabe and Fernandez-Guede, 2006; Giani, 2020; Jakobsson and Blom, 2014), or trust broadly conceived (Arvanitidis et al., 2016; Dinesen and Jæger, 2013; Geys and Qari, 2017; Metcalfe et al., 2011; Perrin and Smolek, 2009; Van Hauwaert and Huber, 2020). In contrast to these studies, our analysis focuses on public opinion stances on core individual freedoms. We are not unique in that respect. Like us, Bozzoli and Müller (2011) also rely on the 2005 British Social Attitudes Survey to study the relationship between perception of threats and demand for greater security using the London bombings as an instrument for respondents' assessment of the risk of terrorist attacks. Unlike us, they are not interested in the dynamics of public opinion, the direct versus indirect effect of terrorist events, and the rationality or irrationality of citizens' response to shocks.[2] We now describe how our analysis can help answering some open questions and adjudicating some debates in the literature on terrorism and public opinion.

1.1 Direct and indirect effects of terrorist shocks

The literature contends that public opinion radically changes attitudes on civil liberties in the wake of terrorist attacks. Citizens have come to demand more protection even at the expense of individual freedoms. Yet, there are different ways a terrorist shock can affect public attitudes on counter-terrorism legislation, and the literature offers very different accounts for this process. Some argue that the shock directly changes public opinion, which, in turn, induces politicians to offer new security policies. Others claim that a terrorist attacks reveals the need for a revamp of existing counterterrorist measures, with public opinion adjusting to the suggested legislative changes. And, to make things more complicated, nothing precludes both accounts to be correct at the same time. In a nutshell, as illustrated in Figure 1, the effect of a terrorist event on public opinion may be a function of the direct effect of the attack and the indirect effect via the supply of new information on the terrorist threat and policy recommendations advanced by elites, be it politicians or the media.

Ideal experiments would be able to isolate one channel at the time. For example, one would look at the public demands for repressive measures, keeping constant any other conditions. This indeed has been done in some studies. Merolla and Zechmeister (2009) rely on experimental data

---

[2]Bozzoli and Müller briefly depict the timing of respondents' average answers to some question items and call for a better understanding of these dynamics, which this paper tries to provide.

(a) Total effect   (b) Direct effect on public   (c) Direct effect on elite
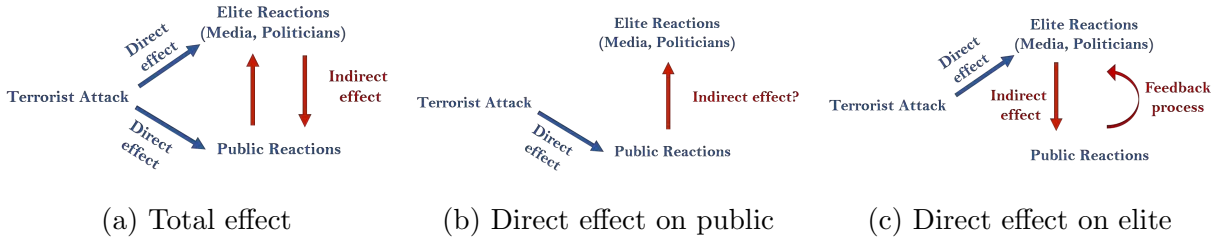
Figure 1: Terrorism effects

(as well as survey data) collected in the USA and Mexico to disentangle the effect of terrorism on attitudinal and behavioral shifts. By manipulating subjects' perception of threat, via news story, either in video or print format, the authors find that, under conditions of anxiety and fear, individuals resort to a number of coping mechanisms. They become less tolerant of other people, particularly those perceived at the margins of society (immigrants and gay people), they call for strong political leaders, they are willing to trade civil liberties and become more supportive of aggressive foreign policies. These findings provide some evidence for "threat priming" as possible channel of influence on public stances in times of terror. Similarly, Brooks and Manza (2013) warn about the malleability of public opinion in the face of terrorist threats. The authors turn to survey experiments to explain the stability of the US public on restrictive counterterrorist measures (e.g. indefinite detention of terrorist suspects, ethnic profiling, airport security checks) over time, despite changes in the US administrations and no significant terrorist attacks in the USA since 2001. By changing slightly the wording of survey questions, they find that respondents were more likely to support liberticidal measures targeting specifically foreign citizens and, particularly, those of Middle Eastern background. Interestingly, the authors also point to a feedback process between public opinion and governments' policies, with individuals becoming more supportive of harsh measures once they are already in place. To date, these works advance the most comprehensive assessment of the effect of terrorism on public opinion on a large array of domains through the collection and analysis of a broad range of survey and experimental data. While these works shed lights on the possible channels via which terrorism affects public opinion, by design they cannot capture the effect generated by a terrorist event.

In this paper, we approach this ideal experiment for the direct effect of terrorism on the demand side for counterterrorist measures in the real world by exploiting the occurrence of the 2005 London bombings during the fieldwork period of the British Social Attitudes Survey. Our data allows mapping the evolution of public opinion on a weekly basis before and after the the bombings. We

distinguish three time periods: the very short run (first week after the attacks), short run (first month minus the first week) and medium run (second month until the end of the survey).[3]

The very short run (arguably) closely approximates the direct effect of a terrorist event. It can be thought of as a situation when the supply side (policy proposals, information from elites about the appropriate response) is held almost constant. The qualifier 'almost' is important since we do not have access to all sources of information available to survey respondents nor a full account of all politicians' statements. Therefore, we cannot claim the indirect channel, via elite clues, is fully accounted for. Nonetheless, despite these caveats, we refer to our very short run analysis (first week) as the direct effect of terrorism in the rest of the paper.

The short and medium runs, in contrast, provide an overview of the indirect effect, via elite persuasion, of a terrorist shock on public attitudes. Any additional effect on top of the very short run is unlikely to be explained by the event itself. Hence, looking at the dynamics of public opinion offers a way to parse out the direct impact of terrorism from its indirect channel.

1.2   Irrational versus rational public attitudes

Our approach can also help adjudicating between different explanations for the shift in public attitudes documented after terrorist events. One main divide among scholars regards the rationality behind the observed attitudinal changes. Some argue that terrorist attacks provoke panic, an over-reaction, which can open a window of opportunity for policymakers to push forward their security agenda. Others assert that citizens assess threats and/or gather clues before potentially supporting more liberticidal counterterrorist policies. All imply different patterns in our data. Below, we describe some of the predominant approaches on the link between public opinion and counter-terrorist legislation and discuss the most likely empirical predictions attached to each of these theories.

The irrationality of the public in the face of terrorism is usually linked to the "psychological effects of terrorism on audiences" (Crenshaw, 1986: 400), with threat as the main catalyst of emotional, cognitive, social and physical reactions. The so called "bath tub fallacy" is often evoked to describe the irrationality and volatility of public opinion about low-probability events (Muller and Stewart, 2018; Viscusi and Zeckhauser, 2003) where panic, shock, and fear dominate over rational appraisals. Despite the risk of dying out of terrorism is negligible and certainly lower

---

[3]Due to data availability (our observations are not balanced on a daily basis), we are unable to employ a Regression Discontinuity Design.

that other types of hazards, such as slipping and dying in a bathtub, terrorism triggers emotional responses that generate a "probability neglect" (Sunstein, 2003). As a result, the public "alters its behavior and demand substantial government response (...) that does not reduce the risk and might in fact make things worse" (Sunstein, 2003: 122). A host of empirical papers seek to distinguish the emotions generated by a terrorist attack and their likely effects on public attitudes towards counterterrorist measures. Sociotropic concerns, namely a perception of threat to the whole society, rather than personal concerns, are often regarded as predictors of public support for anti-terrorist measures (Davis, 2007; Davis and Silver, 2004; Joslyn and Haider-Markel, 2007, 2018).

While sociotropic concerns seem to predict people's willingness to endorse counterterrorist policies, the picture is more nuanced once other emotions are examined. Huddy et al. (2005) distinguish between personal threat and anxiety and find that those perceiving a greater personal risk of becoming targets of terrorism were more supportive of aggressive foreign policies and restrictions of individual freedoms. Conversely, anxious people were less likely to endorse military actions abroad and to back President Bush' counterterrorist actions. Anger as primary motivator of offensive policies is found in several other studies, with angry individuals more likely to favor punitive measures compared to fearful respondents, who are instead keener to endorse conciliatory policies (Giner-Sorolla and Maitner, 2013; Lerner et al., 2003). Not only fear, anxiety and anger, but also positive emotions, such as pride and hope, have been associated with an increase support for counter-terrorist efforts, higher levels of government's trust or support for incumbent politicians, the so called rally-around-the flag effect (Gross et al., 2009; Davis and Silver, 2004; Hetheringhton and Nelson, 2003; Kam and Ramos, 2008; Merolla and Zechmeister, 2009; Perrin and Smolek, 2009; Willer and Adams, 2008).

Overall, this literature emphasizes the role played by feelings and how they shape people's demands for counterterrorist measures. As Muller and Stewart argue (2018: 1), public opinion is "the primary driver behind the extensive and excessive counterterrorism efforts undertaken since 9/11, and officials and elites are more nearly responding to public fear than creating it".

If public reactions to terrorist attacks are driven mostly by emotions, shifts of attitudes towards restrictive policies should be stronger in the short run compared to the long run. Such a patter is documented by Davis (2007) who shows lower support for liberticidal measures in 2003 and 2004 than in 2001. In our context, we would expect (on a shorter time frame) a similar pattern. That is, *if emotions are the main drivers of public responses, changes in public attitudes should be stronger*

in the very short run (first week after the attack) than in the short (first month) and medium run (first quarter).

Not all scholars agree on the assumption of panic prone public, who emotionally overreacts to a terrorist attack. The medical literature frames community responses to terrorist events within a three phases model. In the immediate aftermath of an attack, individuals are more likely to be stunned, numbed or in denial, with only a minority experiencing panic. In the "recoil phase", people tend to process information and make sense of what has happened. Finally, in the recovery phase, individuals adjust to the new state by showing a high level of resilience (Tyhurst, 1951 in Alexander and Klein, 2005). Sheppard et al. (2006) draw on case studies, including the USA terrorist attacks in 2001 and the 2005 London bombings, to question the believe that people react irrationally in times of emergency. The authors contend that in the immediate aftermath of a terrorist shock the public is "fairly resilient, calm and rational in its reactions" (2006: 238). In dispelling the conventional wisdom of a panic prone public, this literature stresses the importance of effective government communication about the threat as a way to minimize the social and psychological impact of terrorist attacks (Perry and Lindel, 2003; Rogers et al., 2007).

In our context, *if the public is unlikely to emotionally over-react to terrorism, we should expect no shifts in public attitudes in the very short term (first week).* Changes in attitudes, if any, should be observed with delay once individuals assess the risk and gather information on the nature and extent of the terrorist exposure.

2   7 July 2005: the London bombings

On July 6, 2005, scenes of jubilation could be seen in different parts of London, with people celebrating the International Olympic Committee's decision to award the 2012 Olympic Games to the UK capital. The day after, Thursday 7 July, images of terror colonized the scene. People travelling that morning on the London transportation system were the target of one of the most deadly terrorist attack experienced by the UK. At 8.50 am within one minute, three bombs exploded on the Circle line near Aldgate and at Edgware Road stations, and on the Piccadilly line near Russell Square. Less than one hour later, a double-decker bus burst in Tavistock Square. Fifty two London residents died in the blasts and seven hundred reported serious injuries. The bombings, carried out with home made explosives, were perpetrated by four men, all radical Islamist terrorists, and all British citizens, who blew themselves up in the attacks.

It was clear, already by midday, that what London experienced that morning was an act of terrorism, and of Islamist nature. The identity of the perpetrators became known only few days later but just within few hours from the blasts the "Secret Organisation Group of Al Qaida in Europe" claimed responsibility for the attacks on the internet.[4] "I have no doubt whatsoever that this is a terrorist attack" confirmed the Mayor of London at that time, Ken Livingstone.[5] Former Foreign Secretary, Jack Straw, corroborated this statement by adding that the bombings had the "hallmarks of an al-Qaeda-related attack."[6] Coming back from Scotland, where the summit of the G8 countries was taking place, the then UK Prime Minister, Tony Blair acknowledged that "this is a terrorist attack or series of terrorist attacks; it's also reasonably clear that it is designed and aimed to coincide with the opening of the G8."[7] By the late afternoon, the whole international community joined the UK in condemning the barbaric attacks "without reservation", with the UN Security Council unanimously adopting resolution 1611 aimed at combating terrorism with "utmost determination."[8]

Dramatic images of the underground and the bus after the blasts, footage of critically injured people, eyewitnesses' accounts of the horrific bombings, live pictures of traffic CCTV cameras, and reconstructions of the timeline of the attacks were transmitted by virtually all media channels throughout 7 July. The BBC Online website recorded a peak of 40,000-page requests per second and some 1 billion total accesses. The day after, images of the remains of the exploded double-decker bus, decimated tube trains, bomb victims covered in blood and passengers led away from the blast scene were in the front pages of virtually all newspapers in the UK and abroad. The Guardian's headline read "London's day of terror," the Daily Telegraph chose "Al-Qa'eda brings terror to the heart of London", and the Daily Star preferred the laconic "Bastards."[9]

Two weeks after the horrific attacks on the 7th of July, London was under siege again. On Thursday 21 July, commuters on the Hammersmith & City, Northern and Victoria undergrounds lines and the number 26 bus witnessed a number of explosions. These blasts were small and no injury or death were reported. It became known in the following day that only the detonator caps of the devises exploded while the bombs themselves did not blast. It also became known that

---

[4]Al-Qaida in Europe claims responsibility for blasts, *The Guardian*, (7/7/2005).
[5]Text of statement by Mayor Ken Livingstone, *Financial Times*, (7/7/2005).
[6]*BBC*, (7/7/2005).
[7]Transcript of Tony Blair speech, *CBC News Online*, (7/7/2005.)
[8]Security Council, Press Release, (7/7/2005).
[9]What the papers say, *The Guardian*, (8/7/2005).

four suspects, all Islamist extremists, were wanted in connection with the attacks and eventually arrested on July 29th.

The first explicit and public announcement of the measures the government was determined to implement as a response to the terrorist attacks came on the 5th of August. The then PM Tony Blair called a press conference to warn that "the rule of the game are changing".[10] He outlined twelve counterterrorist measures to be taken "immediately, or under urgent examination", ranging from extradition, deportation and revocation of citizenship for terrorist suspects to the extension of pre-charge detention, increased powers of security authorities and new offenses for glorification of terrorism.[11]

This brief reconstruction of the events of the 7th of July and the events unfolding in the days and weeks that followed highlights three important features of the London bombings. First, the attacks came as a surprise; second there was very little uncertainty about the nature of the attacks, especially their link with Islamist terror. Third, the bombings increased the salience of terrorism in the eyes of the British public. Thus, 7/7 is a good setting to understand how public opinion responds to terrorism. We now turn to this question using the British Social Attitudes Survey.

3 Empirical analysis

3.1 The Survey

The British Social Attitudes Survey ($BSAS$) is intended to produce annual measures of attitudinal changes on a number of social issues, ranging from public spending and social welfare to disability, social identity and prejudice, inter alia. The survey is designed to yield a representative sample of the population in the UK aged 18+. Household addresses are drawn from Postcode Address File, and one person in the household is interviewed. To account for the fact that people in small households have a higher probability of selection than people in large households, the data are weighted.[12] Interviews are conducted face-to-face and, in the 2005 edition, were designed to last about 65 minutes followed by a self-completion questionnaire.

We use this survey for two reasons. First, the 2005 round of the $BSAS$ was carried out between the 31st of May and the 24th of November, with most of the data collected between June and

---

[10]"The rules of the game are changing", *The Guardian*, (5/8/2005).

[11]Full text: The prime minister's statement on anti-terror measures, *The Guardian*, (5/8/2005).

[12]For a full description of the 2005 *BSAS* and the technical details of the Survey, see Park et al. 2007. British Social Attitudes: The 23rd Report.
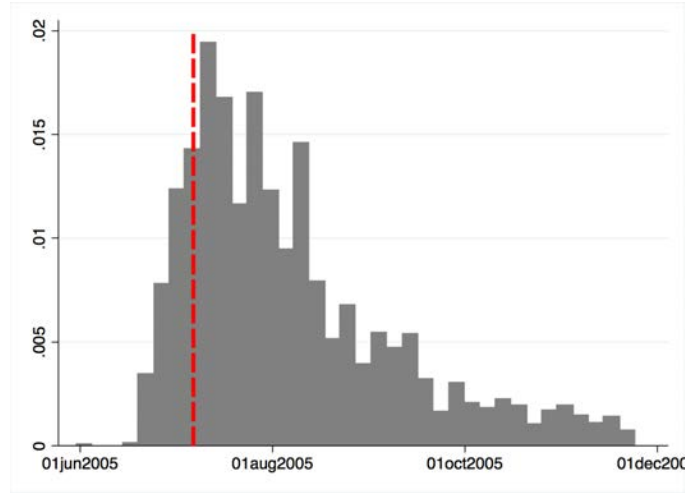
Figure 2: Data collection around the terror attack. The red spike is the date of the attack. On July 7, four Al-Quaeda suicide bomber detonated four bombs in public transports, killing 52 people.

September. The London July 7th attacks, thus, occurred during the main fieldwork period and did not interrupt the running of the interviews. Figure 2 plots the daily distribution of completed surveys. Second, unlike previous and subsequent editions, the 2005 *BSAS* included a set of questions on public support for various restrictive counterterrorist measures. The relevant survey items contain specific reference to extrajudicial practices, such as arbitrary detention and torture, and limitations of privacy rights, such as wiretapping, censorship, banning of demonstrations, and free speech. The BSAS goes to a great lengths to avoid wording effects by incorporating a detailed pre and post formulation for each of the question on the topic (see Appendix B for the wording of these survey items).

3.2 Identification strategy and potential issues

We use principal component analysis to construct our main dependent variables, denoted y_i. In one regression, our dependent variable is *Privacy rights*, an index constructed by using the first component of four survey items, which refer to policy demand for banning protests and free speech, controlling emails and imposing a compulsory ID card. In a second regression, our dependent variable is *Procedural rights*, an index constructed by using the first component of four different survey items, including the policy demand for arbitrary detention, torture, the possibility of tagging suspect without mandates, and the denial of a jury in trials. Details are provided the Appendix D.

The treatment variable $T_i \in \{0, 1\}$ takes value 0 if the respondent was interviewed before the attack and 1 if the respondent was interviewed after the attack. Our empirical approach

12

compares answers between control (pre-attack) and three different treated groups, interviewed at three distinct intervals of time. We first compute the treatment effect among respondents interviewed within 7 days after the attack (from 8/7 to 14/7), the *very short run*. By focusing on this time period, we assess public reaction when the threat is the most salient and possibly prior to any policy proposal. In other words, the very short term is our best approximation of the *direct* effect of a terrorist attack. We then focus on respondents interviewed in the first month (minus the first week) of the attacks (from 15/7 to 6/8), the *short run*. We think of the short run as the interval during which, after the initial emotional reaction, the media and politicians start talking about counter-terrorist initiatives. That is, the short run measures the *total* effect of a terrorist event. Finally, we look at the responses of individuals interviewed in the second month till end of survey (from 7/8 to 24/11), the *medium run*. This allows us to understand whether any reaction is short-lived or yields a permanent shift in attitude.

The analysis controls for a set of covariates, summarized by X_i; that include income (0–14), education (0–7), sex (0–1), age (18–99), age-squared, whether the respondent lives with children (0–1) and whether she has immigration background (0–1). Finally, accounting for the fact that responses to terror attacks might be mitigated by the incumbent's partisanship (i.a. Merolla and Zechmeister, 2013), we add a dummy taking value 1 if the respondent voted Labour during the 2001 election in the UK. Controlling for region fixed effects, we estimate the treatment effect with OLS according to the following specification:

$$y_i = \alpha + \beta T_i + \gamma' X_i + \epsilon_i$$

where β is the main coefficient of interest, α is a constant, γ is a vector of coefficient measuring the effect of controls on the dependent variable, and ϵ is a normally distributed idiosyncratic error term.

Muñoz, Falcó-Gimeno and Hernández (2020) suggest that the causal interpretation of research designs using unexpected events is warranted when the shock is unexpected and salient, it does not interrupt the running of the survey, there are no issues of imbalances due to quota sampling nor problems of reachability and non-compliance. In our setting, the 2005 London attacks came unexpectedly and were highly salient, as described above. There is no mention of any disruption in the running of the British Social Attitudes Survey in coincidence with or after the 7/7 attacks (Park

et al., 2007). Similarly, the BSAS is not based on quota sampling and the timing of interviews is as good as random. While we cannot completely exclude some differences between control and treatment group, we take a number of steps to mitigate these concerns. First, our analysis is centred around the time most of the interviews took place, namely from July 8 to the September 8, 2005 (see Figure 2). Second, when we (attempt to) measure the direct effect of the terrorist attacks, we only focus on the first week after the attacks, where the conditions for causal interpretation are most likely to be met. Third, we conduct a number of robustness tests, which reinforce our findings. We account for the possible unbalanced distribution of socio-economic covariates on control and treated units by detecting and pruning outliers through pre-treatment matching. We then run the same analysis without outliers, using coarsened exact matching (Iacus et al., 2012). Results can be found in Appendix E. We also weight the control group in a way such that the moment conditions of each covariate match the one of the treatment group, using entropy weighting (Hainmueller, 2012). Appendix F shows the empirical estimates associated with this specification. Finally, we conduct a number of placebo tests, changing the time of the attacks and using survey items on issues (government spending in healthcare), which should not be affected by the terrorist bombings (Figure F.1).

4 Results

In this section, we present our empirical findings building on our discussion above of the existing literature. We first report our results for the very short run to uncover any possible direct effect of the terrorist shock. Second, we analyse the dynamics of public opinion and use our findings to detect potential indirect impact and inform the current debate on respondents' rationality.

4.1 Direct effects

Table 1 displays the estimates of the treatment effect for privacy and procedural rights in *very short run*, namely the first week after the London bombings (from July 8 to July 14, 2005). The principal components (labeled index) of both privacy and procedural rights are not statistically significant pointing to no shifts in public attitudes in the immediate aftermath of the attacks.

We also look at each of the dimensions of the two indexes separately. We conduct these additional analyses for two reasons. First, we want to make sure that the null findings in the aggregated indexes are not due to opposite effects of their components. Second, we want to rule out the pos-

sibility that the observed lack of impact of the London bombings on privacy and procedural rights is the result of low statistical power. Again, we find no statistically significant result, with the exception of tapping email and phones (probably a false positive given the other estimates). These results, together or separately, all suggest no direct effects of a terrorist attack on the support for restrictive counter-terror measures.

Table 1: PUBLIC RESPONSES TO TERROR ATTACK: PRIVACY AND PROCEDURAL RIGHTS

	Privacy rights				
	Index	Compulsory ID	Tap email/phone	Ban protest	Ban speech
Treatment	0.236	0.101	0.206*	0.059	0.152
	0.179	(0.145)	(0.112)	(0.129)	(0.135)
Region FE	yes	yes	yes	yes	yes
N.obs	237	254	254	249	251
R-squared	0.08	0.12	0.09	0.09	0.04
	Procedural rights				
	Index	Allow torture	Arbitrary detention	Deny trial	Stop and search
Treatment	0.242	0.101	0.199	0.130	0.090
	(0.182)	(0.107)	(0.129)	(0.142)	(0.106)
Region FE	yes	yes	yes	yes	yes
N.obs	245	254	257	250	256
R-squared	0.09	0.11	0.11	0.10	0.14

*: significant at .1, **: significant at .05, ***: significant at .01. Coefficients for treatment effect following OLS estimaton. The analysis is based on a total of 1,452 control and 1,025 effective treated units. Controls include age (18-99), age squared, gender (0-1), household status (0-1), immigration status (0-1), education attainment (1-7), income (1-14) and a dummy capturing whether the respondent voted Labour party at latest general election (0-1). Region fixed effects apply. Regions include: London, Wales, Scotland, West and East Midlands, Yorkshire, Northern England. Source: BSAS, round 4.

How are we to make sense of this? One possible explanation is that respondents do not change attitudes on privacy and procedural rights simply because they are in a state of "shock". To test for this possibility, we consider other issues for which the public could arguably modify its stance in the very short run after the bombings. We look at survey items that capture the salience of terrorism for respondents and their perception of threat, namely their evaluation of the likelihood of another terrorist attacks in the UK. These two survey questions are meant to capture people's levels of fear of terrorism. We also monitor respondents' positions on whether international human rights laws impede effective military operations and their attitudes towards heightened security measures, that is whether harsh provisions should target all UK residents or only foreign nationals. We use these questions as proxies for aggressiveness and in-group-bias-out-group-hostility respectively. We then examine whether the bombings changed people's self-identification using a survey item that asks respondents how they identify themselves: British, English, Welsh, Northern Irish, etc. We

refer to the "British identity" as a proxy for people's sense of broad belonging, and the "English identity" to denote a narrow definition of self. This "identity test" follows Depetris-Chauvin et al. (2018), with the only difference that we look at national and sub-national ties rather than ethnic vs national self-identification.[13] Finally, we use survey items that focus on respondents' levels of trust towards other people in society and towards the government (Appendix C provides the precise wording for the survey items we used).

Table 2: PUBLIC RESPONSES TO TERROR ATTACK: FURTHER DIMENSIONS

	Likelihood of threat	Salience of threat	Aggressiveness	Ingroup bias
Treatment	1.178***	0.681***	0.259**	0.026
	(0.108)	(0.125)	(0.129)	(0.061)
Region FE	yes	yes	yes	yes
N.obs	253	258	241	257
R-squared	0.37	0.18	0.17	0.09
	Feel English	Feel British	Generalized trust	Political trust
Treatment	0.043	0.004	0.096**	0.045
	(0.029)	(0.030)	(0.041)	(0.057)
Region FE	yes	yes	yes	yes
N.obs	1,010	1,010	597	728
R-squared	0.19	0.05	0.10	0.08

*: significant at .1, **: significant at .05, ***: significant at .01. Coefficients for treatment effect following OLS estimaton. The analysis is based on a total of 1,452 control and 1,025 effective treated units. Controls include age (18-99), age squared, gender (0-1), household status (0-1), immigration status (0-1), education attainment (1-7), income (1-14) and a dummy capturing whether the respondent voted Labour party at latest general election (0-1). Region fixed effects apply. Regions include: London, Wales, Scotland, West and East Midlands, Yorkshire, Northern England. When estimating English identification, we exclude respondents from Scotland and Wales. Source: BSAS, round 4.

Table 2 displays the estimates for all these dimensions for the *very short run*. In the first week after the bombings, people were more likely to perceive the UK was at greater risk of experiencing further terrorist attacks compared to respondents interviewed before the bombings (column 1, top). The attacks also increased people's fear by making terrorism a salient concern for respondents (column 2, top). Further, individuals showed a higher propensity to support aggressive military interventions (column 3, top) whereas no changes can be observed for the in-group-bias dimension (column 4, top). In addition, columns 1 and 2 (bottom) show that the bombing did not change respondents sense of belonging in the very short run (though the coefficient associated to a narrow sense of identity – feeling English– barely misses statistical significant with a p-value of approximately 0.14). Finally, column 3 bottom indicates that respondents also become more likely to

---

[13]We prefer the broad/narrow distinction to a regional/national one since English identity can refer both to the region, but also to a certain sense of nationality (e.g., England competes in many sport tournaments separately from other sub-national units of the United Kingdom).

trust other peoples after the bombings, like in Van Hauwaert and Huber (2020), whereas column 4, bottom, suggests no change in opinions of politicians, unlike Van Hauwaert and Huber (2020).

These patterns suggest people were not "numbed" by the terrorist attacks. Rather, we do find some evidence of an "emotional" responses on items for which feelings could arguably play a more pronounced role than reasoned appraisals. Two are particularly important: citizens felt both more concerned and threatened by terrorism and they were more likely to regard international human rights laws as obstacles for effective military operations. Yet, this change in feelings did not immediately translate into higher demands for policies cutting back core individual freedoms. When it comes to policy responses to terrorism, there is little evidence of spontaneous demand for restrictive counter-terrorist measures.

4.2   Public opinion dynamics

In this subsection, we look at public reaction in the short run (from 15/7 to 6/8) and medium run (7/8 to 24/11). Figure 3 summarizes the results of these analyses (with regression coefficients displayed in Table E.1 in Appendix E).

On the left panel, we plot the treatment effects for privacy rights. Demand for privacy-reducing counterterror policies increased by about 18.8%, significant at $p < .01$ in the short run.[14] The treatment effect remains constant in the medium run and amounts to 19.6%, significant at $p < .01$. The right panel of Figure 3 presents the results for the procedural right index. As for privacy rights, public attitudes changed in the short run and in the medium run. The treatment effect is about 21.0% and is statistically significant at 1%. Further, the treatment effect remains significant at $p < .01$ in the medium run. However, in this case we observe a mild decrease compared to the short run: the treatment effect is about 13.6%. For both indices, the treatment effect in the short run is statistically different than in the very short run, but indistinguishable from the impact in the medium run.

Figure 4 complements Figure 3 by displaying the week by week treatment effects for the first six weeks after the attack (for which we have sufficient observations to carry out a weekly analysis). We can see a gradual increase in the treatment effect for both privacy and procedural rights until

---

[14]The value of the estimated treatment effect is $\hat{\beta} = .59$. Rescaling our index for privacy right to have a minimum at zero, the control group takes the value of 3.13. Hence, the treatment effect adds up $.59/3.13 \approx 18.8\%$. Percentage effects reported below are computed using the same methodology.

Figure 3: TREATMENT EFFECTS FOR PRIVACY AND PROCEDURAL RIGHTS
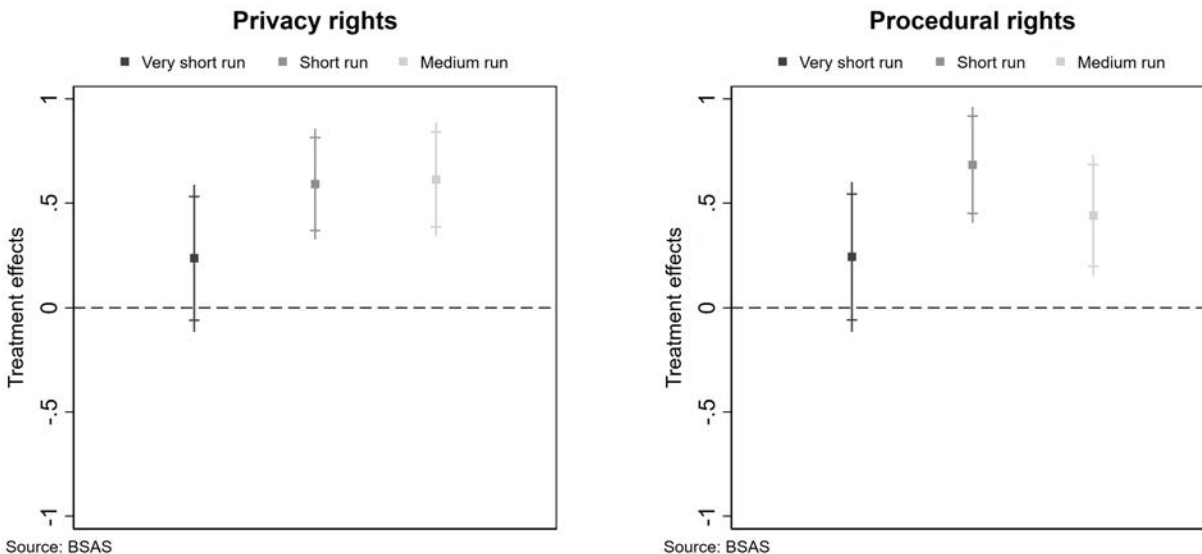
Notes. In both subfigures, spikes refer, respectively, to very short run, short run and medium run. Confidence intervals at 95% . Privacy and procedural rights are constructed using the first component of a principal component analysis discussed in section 4 and printed in table 1. Treatment effects are estimated using OLS, controlling for the same set of sociodemographic variables listed in Table 1 as well as region fixed effects.

week four, followed by a slight decrease more pronounced for procedural rights.[15] Though interesting, these dynamics should not be over-interpreted. The only statistically significant difference is between the first and second week for both indexes.

Are these dynamics specific to privacy and procedural rights? Below, we monitor the the impact of the London bombings, in the short and medium runs, on public stances related to the other relevant items studied in Section 4.1: threat perception and salience of terrorism, permissiveness for aggressive military interventions, in-group bias, social trust and political trust. Most of these dimensions display a common trend, which is very different from the dynamics observed on privacy and procedural rights. In the more emotional items (such as identity, military aggressiveness and trust towards other people), the effect of the attacks tend to fade away over time (respectively, Figures 5a, 5b, and 5d). The volatility of public opinion on these dimensions conforms with the findings in the literature of emotional responses to terrorism, which emphasizes the role played by individuals' feelings and defence mechanisms in coping with security threats in general and terrorism

---

[15]We note that the July 21st attack occurred right at the end of week 3 after the 7/7 bombings. While this second shock occurs after the main one (and, thus, is post-treatment), we checked whether it can be a source of the dynamics we observe by comparing public attitudes in the week before the failed attacks (13-20 July) with public stances on privacy and procedural rights in the week after the attempted bombings (22-29 July). In both cases, treatment effects are non-significant and close to zero (See Appendix H).

Figure 4: Treatment effects for Privacy and Procedural rights weekly
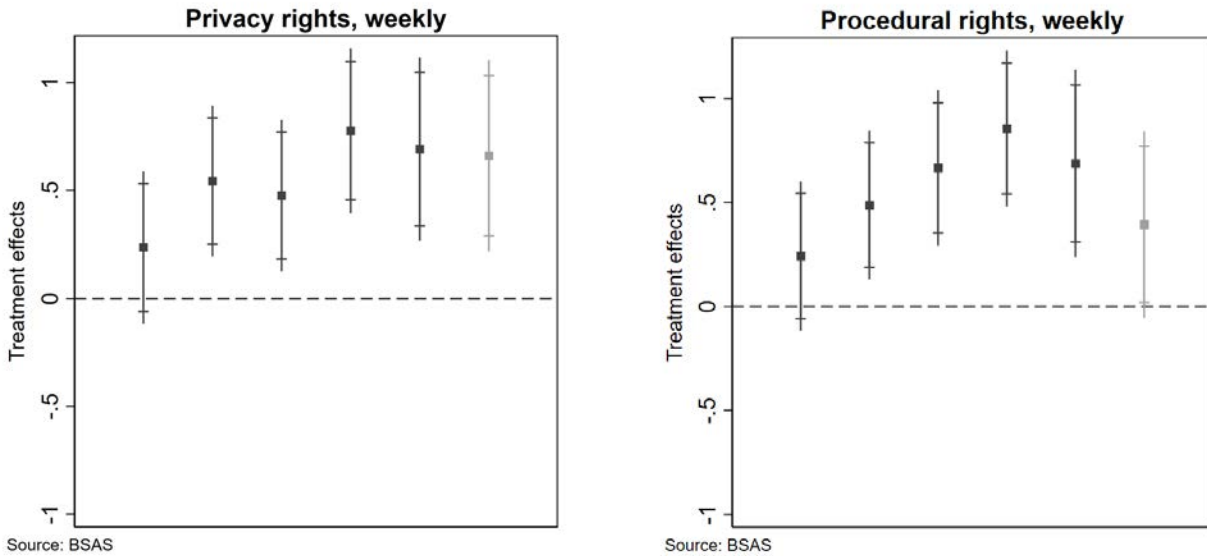
Notes. See Figure 3 above.

in particular (Huddy et al. 2005). The only exception to this pattern is self-identification. Like for privacy and procedural rights, the effect is stronger in the short run (at least, for feeling English).

There seem to be something special about counter-terrorist policies. The public reacts with a delay to the terrorist shock when it comes to privacy and procedural rights. This opens the possibility for indirect effects, driven by elite persuasion (a question we investigate in Section 6). Further, our results point to the absence of an emotional and irrational response regarding restrictive counterterrorist policies (though, such response may occur on other relevant dimension as shown in Figure 5). The higher levels of fear of terrorism does come along with demands for counter-terrorist measures that curtail core individual freedoms. If anything, it goes in the opposite direction. As such, our findings point to a public that tends to distinguish between emotions and policy responses, adopting a rather "wait and see" attitude for the latter. To provide further evidence for this hypothesis, in the next section, we study who drives the dynamics uncovered above.

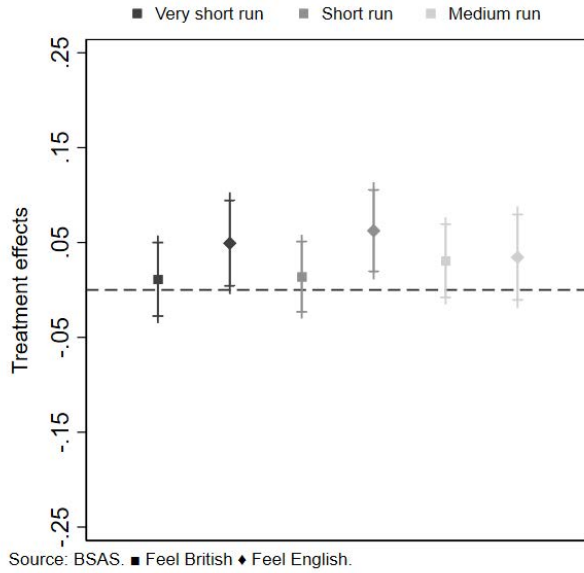Figure 5: RELATED ISSUES: THREAT, INGROUP BIAS, SELF-IDENTIFICATION AND TRUST
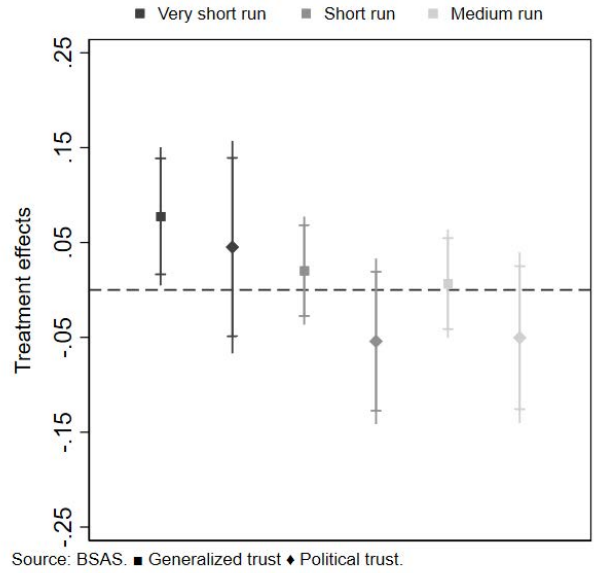
.

(a) Likelihood and salience of threat
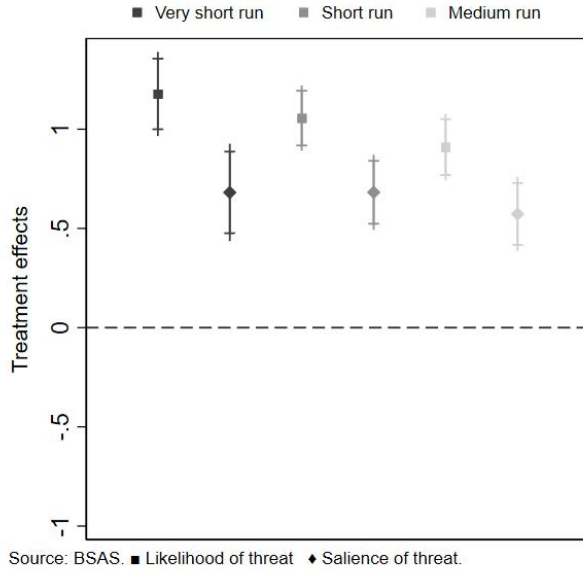
(b) Aggressiveness and in-group bias
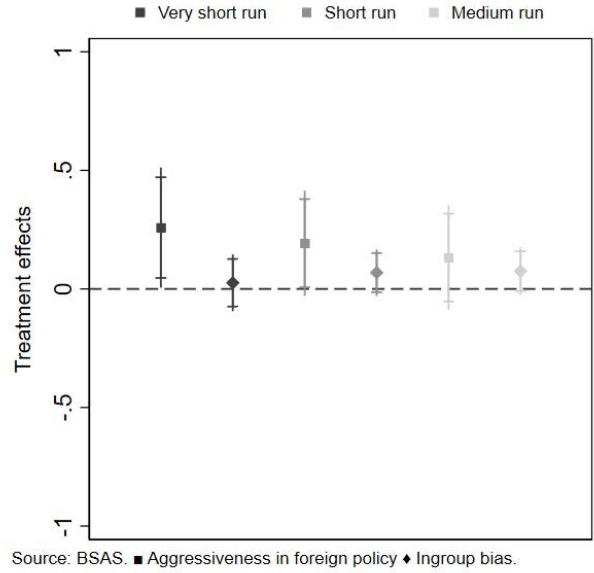
(c) Self-identification

(d) Generalized and political trust

Notes. For each subfigure, the very short, short and medium run treatment effects are based on the specification described in Table 1.

20

5 Heterogeneous effects

In this section, we explore the effect of respondents' characteristics on their propensity to support illiberal measures. We focus on education and place of residence. Individuals with lower levels of education are thought to display a lower degree of sophistication in processing and evaluating information (Brook and Manza, 2013; Castanho Silva, 2018; Davis and Silver, 2004; Jenkins-Smith and Herron, 2005; Schüller, 2016). Hence, we expect the direct, emotional impact of a terror shock to be higher for non-college graduates than for college graduates. Rural residents are also believed to be less exposed to risk and potentially more reactive (Davis and Silver, 2004). This suggests that an "irrational" response should be more likely for rural rather than urban interviewees.

Figure 6a displays the effect of the London bombings on support for measures cutting back privacy rights for non-graduate versus college graduate respondents. As before, we observe no significant effect of the bombings in the very short run for *both* categories of individuals. Changes in attitudes towards more restrictive privacy rights can be observed in the short and medium run and are solely driven by less educated respondents.

Figure 6c, refers to privacy rights, Figure 6d shows the effects on procedural rights, this time for rural versus urban respondents respectively. No changes in attitudes, neither for rural nor for urban respondents can be observed in the very short run. Once more, the increase in support for restrictions of privacy and procedural rights started with a delay, in the short and medium run, with no statistical difference between the two groups. One limitation of our analysis is that urban areas include all major UK cities as we do not have enough observations to look at London respondents compared to everyone else.

These heterogeneous effects should be interpreted with particular caution. The *BSAS* surveys a representative sample of the UK population but not a representative sample of graduate individuals or urban residents. We can no longer guarantee that we recover the causal effect of a terrorist shock for the sub-population of interest. Nonetheless, this section provides further evidence against the hypothesis of an irrational public who over-react to terrorism. The group most likely to react, the less educated, is indeed driving the dynamics we observe. But this pattern is a "waiting" approach, with people appering to gather more information before shifting attitudes on the liberty versus security trade-off. Where does this additional information come from? We turn to this question in the next section.

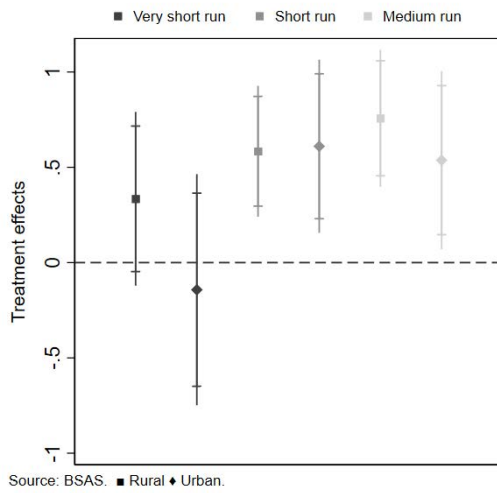Figure 6: HETEROGENOUS EFFECTS: EDUCATION AND PLACE OF RESIDENCE

.

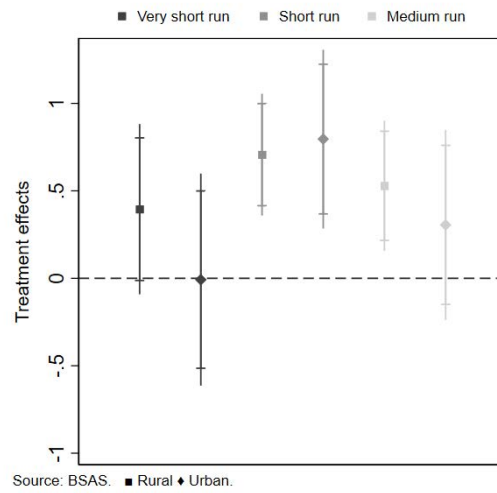(a) **Privacy rights**: Non-graduate and graduate
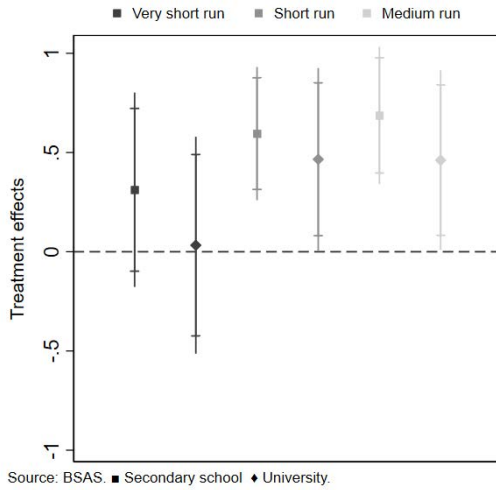
(b) **Procedural rights**: Non-graduate and graduate
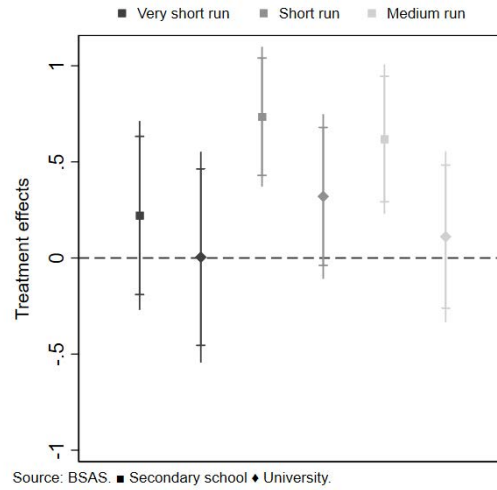
(c) **Privacy rights**: Urban and rural

(d) **Procedural rights**: Urban and rural

The sample for this analysis is splitted according to education and residence as clarified in the text. The specification for every analysis is the same as that presented in Table 1.

6 Who influences the public: Politicians? Media?

The results described above point to some puzzling dynamics. Terrorism triggered an"emotional" reaction on some important stances but did not change people's propensity to curtail civil liberties and the procedural guarantees of suspects in the very short run, namely the first week after the bombings. Attitudes on these dimensions changed in the other time intervals, the short and medium runs. This section seeks to disentangle some possible influences on public attitudes. We first explore the impact of politicians on public opinion. We then look at media influence.

To test for the first mechanism, one would like to look at the effect of a new counter-terrorist policy proposal on public attitudes towards security measures, keeping all other factors constant. In our empirical set-up, isolating the effect of legislative proposals would entail measuring public stances on the day of politicians' speeches or, using a Regression Discontinuity Design. Our data, however, are not balanced on a daily basis and only allow us to check public opinion changes in the aftermath of a speech on counter-terrorist measures delivered by the incumbent politician, PM Tony Blair, in a press conference in August 5, 2005. As before, this is only an approximation of the direct effect of the announcement of new legislative proposal on public attitudes. Yet, this allows us, at least, to have an idea of how politicians, via their announcements, influence public opinion. We replicate our empirical strategy, using the speech as treatment (the results are displayed in Figure I.1 in Appendix I). Our findings suggest the public is not affected by Tony Blair's endorsement of harsh counter-terrorist policies. Attitudes on both privacy and procedural rights did not change after the speech.

However, there are reasons not to read too much into this test. First, the Blair's speech came at a later point in time when respondents could have been already influenced by media coverage or previous public interventions by Tony Blair or prominent politicians. Second, our "treated group" spans several weeks (due to low number of observations) increasing the risk of finding no effect as other events may influence respondents during the "treatment" period.

To complement our analysis, we, thus, look how the treatment effect varies with respondents' partisan leaning. We distinguish between respondents who voted for Labour in the 2005 United Kingdom general election and those who voters of other parties (mostly for the Conservatives and a few for the Liberal Democrats). Before describing the result of this test, a word of caution is in order. Partisanship may be affected by the London bombings and this may induce post-treatment bias (such as party switches). Yet, our findings, displayed in Figure 7a for privacy rights and

Figure 7: LABOUR AND NON-LABOUR VOTERS

(a) **Privacy rights**   (b) **Procedural rights**
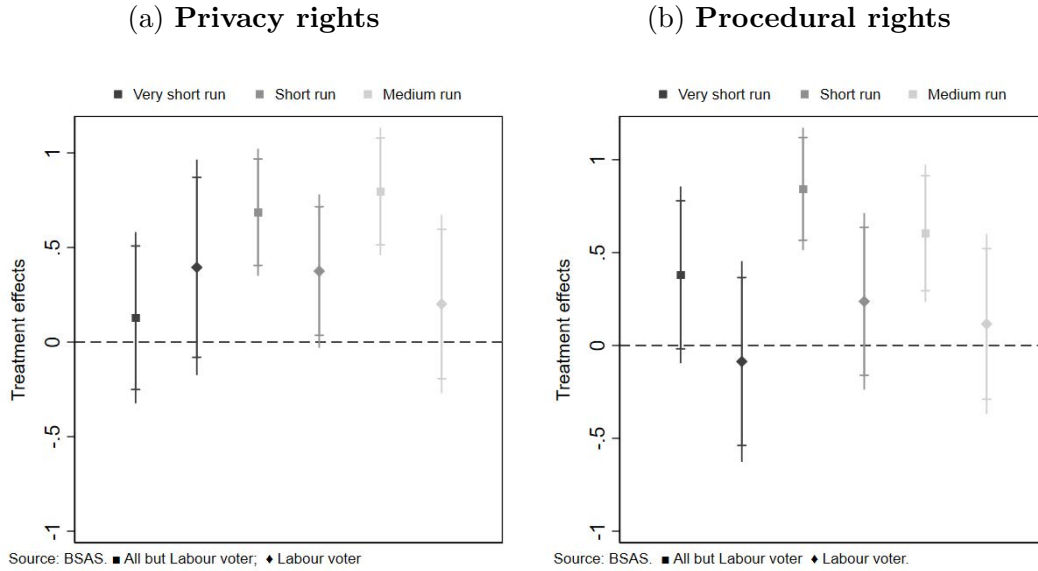
The sample for this analysis is splitted according to partisanship, distinguishing between Labour supporters and all others. The specification for every analysis is the same as that presented in Table 1.

Figure 7b for procedural rights, are in line with a large literature that attributes to left-wing voters a greater concern for the protection of individual freedoms than conservatives, with the latter giving priority to security (Davis, 2007; Davis and Silver, 2004; Huddy et al., 2007). The dynamics we uncovered are due to non-Labour voters. Left-leaning respondents do not appear to respond to the terrorist shock in any of the time period considered.

Building on Cukierman and Tommasi (1998) and Calvert (1985), the lack of reaction by Labour voters runs against the idea that politicians influence voters' stances on counter-terrorist policies. As these models predict, if politicians lead public attitudes, with the Labour party in office, one should have observed the reverse effect with left-wing respondents reacting more than right-wing individuals.[16] While we cannot offer a definitive conclusion, the evidence in favor of politicians' influence appears to be weak, or even non-existent.

Turning to the possible influence exercised by the media, ideally, we would have liked to compare the effect of 7/7 on respondents with high exposure to media with those with low exposure. A way to operationalize this test would have been to interact the treatment effect with newspaper

---

[16]Cukierman and Tommasi (1998) and Calvert (1985) both show that public attitude changes most when voters receive a piece of news from an unlikely source. In our case, we would expect the Conservative party to be on average more favorable to tougher measures than the Labor party. When Tony Blair endorses restrictions to privacy and procedural rights, this should signal to skeptical voters that these policies are necessary (just like it took a Nixon to convince the American voters that normalizing diplomatic relations with communist China was the right policy). Consequently, we should observe a bigger change in attitudes for Labour respondents than Conservative respondents if the hypothesis that attitudes change because of politicians' actions is correct. As the reverse holds true in our data, this suggests that the hypothesis is to be rejected.

readership controlling for media coverage. Unfortunately, our data do not allow us to perform such analysis. The total number of respondents reporting to read a newspaper in the overall sample of treated people is 380. This means that, once we sub-sample into weeks, we would be left with very few observations to carry out any meaningful estimation. For example, among individuals interviewed in the first week, we have only thirteen people that report to read the Sun and three that report to read the Guardian. Second, any interaction with media consumption is likely to suffer from post-treatment bias.[17] As a second best, we look at media coverage in the aftermath of the attack, without attempting to measure the effect of say coverage on respondents due to these data limitations.

Figure 8 shows the number of articles on terrorism, both on a daily and weekly basis, for the whole period of the *BSAS* interviews were carried out (for an overview of the methodology used in this figure and others, see Online Appendix J). In both graphs, the first red line depicts the day of the London bombings (7/7/2005) the second and third red lines demarcate the very short run (8/7 to 14/7) and the short run (15/7 to 6/8), respectively.

As Figure 8a shows, the daily number of newspaper articles mentioning terrorism picked on the day of the attack and the first week after the bombings. The frequency remained high in the month that followed showing that the issue maintained high salience for a significant period. While this is not surprising given the scale of the attacks, it shows that terrorism was in the mind of respondents interviewed in the very short and short runs.

Figure 8b displays the number of articles on terrorism on a weekly basis by publication type, with weekly tabloids including The Sun, Daily Mail, Daily Mirror, Daily Star, Daily Express and their Sunday versions. Two patterns emerge from the figure. First, tabloids tend to publish more articles on terrorism than their most prestigious counterparts (though this is also a mechanical effect due to the number of outlets considered). Second, tabloids exhibit a peak in the number of articles right in the middle of our short run period. This is consistent with our results so far. Tabloids tend to be read by working classes (Newspaper Marketing Agency, 2008) and tend to lean to the right, with the exception of the Daily Mirror (Yougov, 2017), the two subsets of respondents who reacted to the London bombings (Figures 6c, 6c, and 7).

---

[17]More specifically, we cannot guarantee that respondents who report watching news or reading newspapers before and after the attacks are the same since the London bombings likely increased the demand for news. Further, the only measure of media consumption with sufficient varation is hours watching TV, which is a poor proxy for news exposure (respondents watch TV for entertainment on top of learning about domestic affairs).

Figure 8: Articles count on terrorism

(a) **Total daily articles**   (b) **Weekly articles by publication**
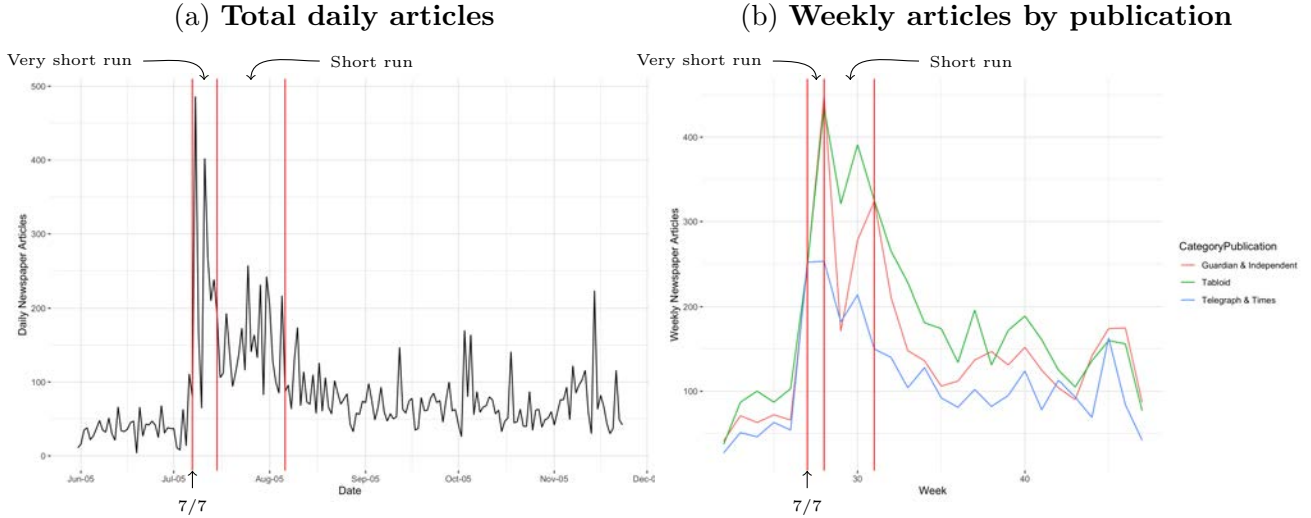

To make slightly more robust inferences, we also look at the content of newspaper articles in Figure 9. Again, we observe variations in mentions that appear to match the dynamics of public opinion. In the very-short run, we see little references to terror laws, counter-terrorism, or references to policy measures such as anti-terrorist laws or counter-terrorism. These themes become more prominent in the short-run (Figures 9a and 9b). Inversely, mentions of freedom are higher in the very short run rather than in the short run when they reach their minimum (Figure 9d). The pattern for security is different due to the G8 meeting taking place on 6-8 July 2005, which dominated the news before the terrorist attacks.[18] We see much more variation in the middle run (due to the longer period considered). In particular, the content of articles tend to match the political debates, with, for example, mentions of "freedom," "terror laws," and "counterterrorism" all exhibiting a spike around the discussion of the new Terrorism Act proposed in September 2005 (the introduction of this bill probably explains as well the late spike in the number of daily articles in Figure 8a). One contentious issue regarded an amendment (proposed on 9 November but rejected by the Commons) that would have extended the period of pre-charge detention of terrorist suspects from 14 to 90 days.

Figure 10 plots the log odds ratio of words appearing in articles published in the very short run (the first week) as compared to articles published in the short run (the first month).[19] Term frequencies are calculated separately within the very short and short term subsets of the population of articles. We then compute the log ratio of the most frequent fifty words in the first week to the

---

[18]We also observe many references to freedom in the weeks prior to the attack. This is likely to be due to the debate around the Identity Cards Bill introduced by the government into the Commons on 25 May. This conjecture is supported by an analysis of mentions of 'ID cards' displayed in Figure J.2b in Online Appendix J.

[19]See Wasow (2020) for an application of this approach to the case of violent/peaceful protests.

Figure 9: Weekly articles on terrorism and counterterrorism.

(a) **Terror laws**

(b) **Counterterrorism**

(c) **Security**

(d) **Freedom**
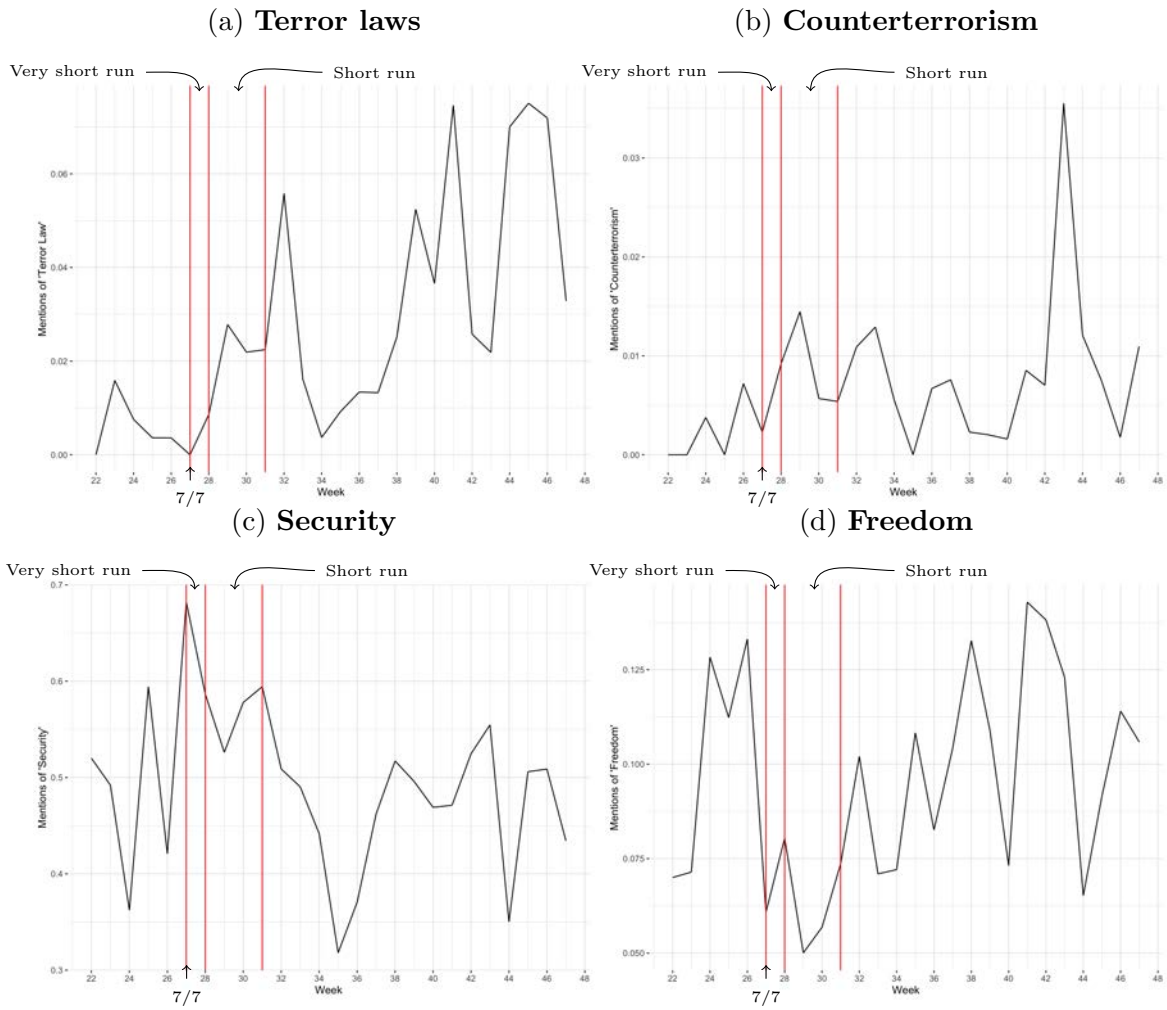
most frequent words in the first month. The top fifteen rows are words that appear with greater frequency in the press in the first week relative to the words in the first month, while the bottom fifteen rows show words appearing more frequently in the first month relative to the first week.

Figure 10: RATIO OF TERM FREQUENCIES IN THE VERY SHORT RUN VERSUS THE SHORT RUN
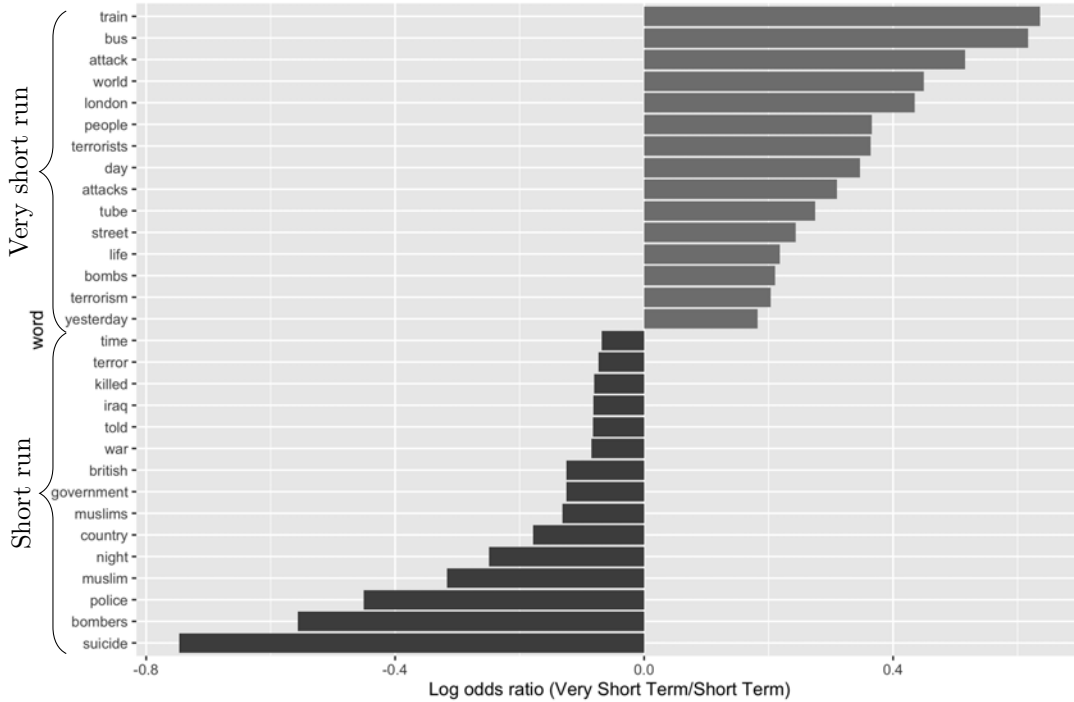
The very short run is dense of words describing the London bombings. The first two upper rows of Figure 10 indicate that "train" and "bus" are the most frequent terms in the first week from the bombings, followed by words that can be related to a description of the events taking place on the day of the attack (e.g. "London", "people", "terrorist", "day", "tube", "bombs"). In contrast, in the short run, words related to the perpetrators of the attacks ("bombers", "muslim") and their consequences ("police", "government", "war", "told") become much more frequent than in the very short run. A word cloud analysis in Appendix J of the most used terms in the first week and the first month from the attacks displays a similar pattern (Figure J.4).

Overall, our analysis reveals a shift in emphasis in newspaper coverage. While the immediate aftermath of the attack is dominated by description of the fallout of the bombings, printed outlets appear to turn to the policy consequences of the terrorist event a week later. Additional analysis in Online Appendix J provides further evidence consistent with this interpretation, with mentions of "solidarity" peaking just after the attack (potentially explaining why generalized trust increases in the very short run, see Figure 5d), whereas references to "Ban," "Detain and Torture," or "Muslims" are all higher in the short run than in the first week after the attack. While none

of this descriptives is absolutely conclusive, public opinion and newspaper content seem to move jointly, in a fashion which seems more than a coincidence. Our results, as such, seem to confirm the importance of priming by the media, documented by Brooks and Manza (2013) and Merolla and Zechmeister (2009) in experiments, Cho et al.(2003) in the aftermath of 9/11 in the USA, and Solheim (2019) in the case of the 2015 Charlie Hebdo and Hyper Cacher attacks.

7   Conclusion

In the introduction, we asked three questions. Is the reversal of attitudes on individual rights a "direct" effect of terrorism? When and how do people change opinion on civil liberties after a terrorist attack? Does the public lead to liberticide policy change or does it just follow politicians and the media? The dynamics of public stances on privacy and procedural rights after the 7/7 bombings in London suggest the following answers. The direct effect of a terrorist shock is weak at best. Citizens demand more security after a terrorist event, but with a delay. Support for restrictions on core freedom remain constant in the very first week, and increases only in the short run and medium runs. In other words, it seems that the public follows, rather than leading. Ancillary tests and text analyses point to the media as the main source of persuasion. Turning back to our initial discussion of the possible ways a terrorist attack affects public opinion (Figure 1), our results suggest that the total effect of terrorism may well be limited to an indirect effect via a single source of elite influence, the media.

The dynamics of public opinion we uncover also run against the hypothesis of an emotional, over-reacting citizenry driven by fear, at least when it comes to counter-terrorism. Heterogeneous tests provide some additional support for this conclusion. Less educated respondents are driving the empirical pattern we observe, but even this sub-group does not react to a terrorist shock in the very short run. We find no difference between urban residents, generally more exposed to risks, and rural residents, who may have been more surprised by the London bombings. Overall, our findings yield a rather discouraging conclusion. By adopting a wait-and-see attitude, the public may well have rationally chosen to give up some essential liberties for additional security.

References

Alexander, David A., and Susan Klein. 2005. "The psychological aspects of terrorism: from denial to hyperbole." *Journal of the Royal Society of Medicine* 98 (12): 557-562.

Arvanitidis, Paschalis, Athina Economou, and Christos Kollias. 2016. "Terrorism's effects on social capital in European countries." *Public Choice*, 169 (3-4): 231-250.

Balcells, Laia, and Gerard Torrats-Espinosa. 2018. "Using a natural experiment to estimate the electoral consequences of terrorist attacks." *Proceedings of the National Academy of Sciences*, 115 (42): 10624-10629.

Blackwell, Matthew, Stefano Iacus, Gary King, and Giuseppe Porro. 2009. "cem: Coarsened exact matching in Stata" *The Stata Journal*, 9 (4): 524-546.

Böhmelt, Tobias, Vincenzo Bove, and Enzo Nussio. 2020. "Can terrorism abroad influence migration attitudes at home?." *American Journal of Political Science*, 64 (3): 437-451.

Boomgaarden, Hajo G., and Claes H. de Vreese. 2007. "Dramatic real-world events and public opinion dynamics: Media coverage and its impact on public reactions to an assassination." *International Journal of Public Opinion Research*, 19 (7): 354-366.

Boydstun, Amber E., Jessica T. Feezell, and Rebecca A. Glazier. 2018. "In the wake of a terrorist attack, do Americans' attitudes toward Muslims decline?." *Research & Politics*, 5(4).

Bozzoli, Carlos, and Cathérine Müller. 2011. "Perceptions and attitudes following a terrorist shock: Evidence from the UK." *European Journal of Political Economy*, 27: S89-S106.

Brooks Clem and Jeff Manza. 2013. *Whose Rights?: Counterterrorism and the dark side of American public opinion*. New York: Russel Sage Foundation.

Crenshaw, Martha. 1986. "The psychology of political terrorism". *Political Psychology*, 21(2): 379-413.

Calvert, Randall L. 1985. "The value of biased information: A rational choice model of political advice." *The Journal of Politics*, 47 (2): 530-555.

Castanho Silva, Bruno. 2018. "The (non) impact of the 2015 Paris terrorist attacks on political attitudes."*Personality and Social Psychology Bulletin*, 44(6): 838-850.

Cho Jaeho, Michael P. Boyle, Heejo Keum, Mark D. Shevy, Douglas M. McLeod, Dhavan V. Shah, and Zhongdang Pan. 2013. "Media, terrorism, and emotionality: Emotional differences in media content and public reactions to the September 11th terrorist attacks". *Journal of Broadcasting & Electronic Media*, 47(3): 309-327.

Cukierman, Alex, and Mariano Tommasi. 1998. "When does it take a Nixon to go to China?." *American Economic Review*, 88 (1): 180-197.

Davis Darren W. and Brian D. Silver. 2004. "Civil liberties vs. security: Public opinion in the context of the terrorist attacks on America". *American Journal of Political Science*, 48(1): 28-46.

Davis Darren W. 2007. *Negative liberty: Public opinion and the terrorist attacks on America.* New York: Russell Sage Foundation Publications.

Depetris-Chauvin, Emilio, Ruben Durante, and Filipe Campante. 2020. "Building nations through shared experiences: Evidence from African football."*American Economic Review*, 110 (5): 1572-1602.

Dinesen, Peter Thisted, and Mads Meier Jæger. 2013. "The effect of terror on institutional trust: New evidence from the 3/11 Madrid terrorist attack." *Political Psychology* 34 (6): 917-926.

Elsayed AEA and de Grip, Andries. 2013. "Terrorism and integration of Muslim immigrants". No. 014. Maastricht University, Research Centre for Education and the Labour Market (ROA).

Echebarria-Echabe, Agustin, and Emilia Fernández-Guede. 2006. "Effects of terrorism on attitudes and ideological orientation." *European Journal of Social Psychology*, 36 (2): 259-265.

Epifanio, Mariaelisa. 2011. "Legislative response to international terrorism." *Journal of Peace Research*, 48 (3): 399-411.

Finseraas, Henning, Niklas Jakobsson, and Andreas Kotsadam. 2011. "Did the Murder of Theo van Gogh Change Europeans' Immigration Policy Preferences?." *Kyklos*, 64 (3): 396-409.

Finseraas, Henning, and Ola Listhaug. 2013. "It can happen here: The impact of the Mumbai terror attacks on public opinion in Western Europe." *Public Choice*, 156 (1-2): 213-228.

Getmansky, Anna, and Thomas Zeitzoff. 2014. "Terrorism and voting: The effect of rocket threat on voting in Israeli elections." *American Political Science Review*, 108(3): 588-604.

Geys, Benny, and Salmai Qari. 2017. "Will you still trust me tomorrow? The causal effect of terrorism on social trust."*Public Choice*, 173 (3-4): 289-305.

Giani Marco. 2017. "Don't ban the Muslims. Public reaction to terror attacks". *Working Paper.*

Giani, Marco. 2020. "Fear without Prejudice in the Shadow of Jihadist Threat". Comparative Political Studies, page forthcoming.

Giner-Sorolla, Roger, and Angela T. Maitner. 2013. "Angry at the unjust, scared of the powerful: Emotional responses to terrorist threat." *Personality and Social Psychology Bulletin*, 39 (8): 1069-1082.

Gross, Kimberly, Paul R. Brewer, and Sean Aday. 2009. "Confidence in government and emotional responses to terrorism after September 11, 2001." *American Politics Research*, 37 (1): 107-128.

Hainmueller, Jens. 2012. "Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies." *Political analysis*, 30: 25-46.

Hanes, Emma, and Stephen Machin. 2014. "Hate crime in the wake of terror attacks: Evidence from 7/7 and 9/11." *Journal of Contemporary Criminal Justice*, 30 (3): 247-267.

Hetherington, Marc J., and Michael Nelson. 2003. "Anatomy of a rally effect: George W. Bush and the war on terrorism." *Political Science & Politics*, 36(1): 37-42.

Huddy Leonie, Stanley Feldman, Charles Taber and Gallya Lahav. 2005. "Threat, anxiety, and support of antiterrorism policies". *American Journal of Political Science*, 49(3): 593-608.

Iacus, Stefano M., Gary King, and Giuseppe Porro. 2012. "Causal inference without balance checking: Coarsened exact matching." *Political analysis*, 20 (1): 1-24.

Jakobsson, Niklas, and Svein Blom. 2014. "Did the 2011 terror attacks in Norway change citizens' attitudes toward immigrants?." *International Journal of Public Opinion Research*, 26 (4): 475-486.

Jenkins-Smith, Hank C., and Kerry G. Herron. 2005. 'United States Public Response to Terrorism: Fault Lines or Bedrock? ". *Review of Policy Research*, 22(5): 599-623.

Joslyn, Mark R., and Donald P. Haider-Markel. 2007, "Sociotropic concerns and support for counterterrorism policies." *Social Science Quarterly*, 88 (2): 306-319.

Joslyn, Mark R., and Donald P. Haider-Markel. 2018. "The direct and moderating effects of mass shooting anxiety on political and policy attitudes." *Research & Politics*, 5 (3): 1-9.

Kam, Cindy D., and Jennifer M. Ramos. 2008. "Joining and leaving the rally: Understanding the surge and decline in presidential approval following 9/11." *Public Opinion Quarterly*, 72(4): 619-650.

Legewie, Joscha. 2013. "Terrorist events and attitudes toward immigrants: A natural experiment."*American Journal of Sociology*, 118 (5): 1199-1245.

Lerner, Jennifer S., Roxana M. Gonzalez, Deborah A. Small, and Baruch Fischhoff. 2003. "Effects of fear and anger on perceived risks of terrorism: A national field experiment." *Psychological Science*, 14 (2): 144-150.

Metcalfe, Robert, Nattavudh Powdthavee, and Paul Dolan. 2011. "Destruction and distress: using a quasi-experiment to show the effects of the September 11 attacks on mental well-being in the United Kingdom." *The Economic Journal*, 121 (550): F81-F103.

Merolla, Jennifer L., and Elizabeth J. Zechmeister. 2009. *Democracy at risk: How terrorist threats affect the public*. University of Chicago Press.

Merolla, Jennifer L., and Elizabeth J. Zechmeister. 2013. "Evaluating political leaders in times of terror and economic threat: The conditioning influence of politician partisanship." *The Journal of Politics*, 75 (3): 599-612.

Montalvo, Jose G. 2011. "Voting after the bombings: A natural experiment on the effect of terrorist attacks on democratic elections." *Review of Economics and Statistics* 93 (4): 1146-1154.

Mueller, John, and Mark G. Stewart. 2018. *Public opinion and counterterrorism policy*. Washington, DC: Cato Institute.

Muñoz, Jordi, Albert Falcó-Gimeno, and Enrique Hernández. 2019. "Unexpected event during survey design: promise and pitfalls for causal inference." *Political Analysis*, 28 (2): 186-206.

Neumayer, Eric, Thomas Plumper, and Mariaelisa Epifanio. 2014. "The "Peer-Effect" in Counterterrorist Policies." *International Organization* (2014): 211-234.

NMA Newspaper Marketing Agency. Jan-Jun 2009.

Nussio, Enzo, Vincenzo Bove, and Bridget Steele. 2019. "The consequences of terrorism on migration attitudes across Europe." *Political Geography*, 75: 102047.

Park Allison, John Curtice, Katarina Thomson, Miranda Phillips and Mark Johnson. 2007. *British Social Attitudes Survey: British Social Attitudes: The 23rd report.* SAGE Publications

Perrin, Andrew J., and Sondra J. Smolek. 2009. "Who trusts? Race, gender, and the September 11 rally effect among young adults." *Social Science Research*, 38 (1): 134-145.

Perry, Ronald W., and Michael K. Lindell. 2003. "Understanding citizen response to disasters with implications for terrorism." *Journal of Contingencies and Crisis Management*, 11 (2): 49-60.

Pudles, Daniel. 2007. "The real price of freedom". *The Economist.*

Rogers, M. Brooke, Richard Amlôt, G,. James Rubin, Simon Wessely, and Kristian Krieger.2007. "Mediating the social and psychological impacts of terrorist attacks: The role of risk perception and risk communication." *International Review of Psychiatry*, 19(3): 279-288.

Schüller, Simone. 2016. "The effects of 9/11 on attitudes toward immigration and the moderating role of education." *Kyklos*, 69 (4): 604-632.

Sheppard, Ben, James G. Rubin, Jamie K. Wardman, and Simon Wessely. 2006. "Terrorism and dispelling the myth of a panic prone public". *Journal of Public Health Policy*, 27: 219-245.

Solheim, Øyvind Bugge. 2019. " Are we all Charlie? How media priming and framing affect immigration policy preferences after terrorist attacks." West European Politics (2019): 1-25.

Sunstein, Cass R. 2003. "Terrorism and probability neglect" *Journal of Risk and Uncertainty*, 26 (2-3): 121-136.

Van Hauwaert, Steven M., and Robert A. Huber. 2020. "In-group solidarity or out-group hostility in response to terrorism in France? Evidence from a regression discontinuity design." *European Journal of Political Research*, 59 (4): 936-953.

Viscusi, W. Kip, and Richard J. Zeckhauser. 2003. "Sacrificing civil liberties to reduce terrorism risks." *Journal of Risk and Uncertainty*, 26 (2-3): 99-120.

Wasow, Omar. 2020. "Agenda Seeding: How 1960s Black Protests Moved Elites, Public Opinion and Voting." *American Political Science Review*: 1-22.

Willer, Robb, and Nick Adams. 2008. "The threat of terrorism and support for the 2008 presidential candidates: Results of a national field experiment." *Current Research in Social Psychology*, 14 (1): 1-22.

YouGov. How left or right-wing are the UK's newspapers? March 07, 2017.

Online Appendix

(Not for publication)

A   Descriptive Statistics

	Control group			Treatment group				
	N.obs	Mean	St.dev	N.obs	Mean	St.dev	Min	Max
Privacy right	149	-.44	1.34	827	.79	1.27	-3.56	2.46
Compulsory ID	163	2.78	1.16	864	3.08	1.05	1	4
Control email/phone	163	3.05	.91	867	3.28	.84	1	4
Ban free speech	161	2.37	1.03	862	2.69	1.03	1	4
Ban protest	158	2.01	1.05	865	2.16	1.02	1	4
Procedural right	155	-.37	1.44	821	.70	1.43	-3.60	2.48
Arbitrary detention	165	2.97	1.07	869	3.13	.85	1	4
Torture suspect	164	1.47	.83	865	1.76	1.02	1	4
Tag suspect	164	3.23	.84	872	3.13	.85	1	4
Deny trial	159	2.35	1.15	839	2.47	1.13	1	4
Income	189	7.92	4.8	902	9.25	5.02	1	17
Education	201	4.39	2.23	911	4.01	2.15	1	7
Age	201	53.33	18.14	911	49.23	17.80	18	99
Gender	201	.58	.49	911	.60	.49	0	1
Children	201	.22	.42	911	.29	.45	0	1
Immigrant	201	.56	.50	911	.56	.50	0	1
Voted labour	201	.30	.46	911	.29	.45	0	1

Table A.1: Descriptive statistics.

B Survey Items: Dependent Variables

Wording of survey items in the *British Survey of Social Attitudes (UK, 2005)* used to construct our dependent variables.

- **Privacy rights:** "A number of measures have been suggested as ways of tackling the threat of terrorism in Britain. Some people oppose these because they think they reduce people's freedom too much. Others think that the reduction in freedom is a price worth paying. For each of the measures I mention, please say which of the views on this card comes closest to your own: (i) *Following people suspected of involvement with terrorism, tapping their phones and opening their mail*; (ii) *having compulsory identity cards for all adults*; (iii) *Banning certain peaceful protests and demonstrations*; (iv) *banning certain people from saying whatever they want in public.*"

- **Procedural rights:** "A number of measures have been suggested as ways of tackling the threat of terrorism in Britain. Some people oppose these because they think they reduce people's freedom too much. Others think that the reduction in freedom is a price worth paying. For each of the measures I mention, please say which of the views on this card comes closest to your own: (i) *Allowing the police to detain people for more than a week or so without charge if the police suspect them of involvement in terrorism*; (ii) *denying the right to a trial by jury to people charged with a terrorist-related crime; (iii) putting people suspected of involvement with terrorism under special rules, which would mean they could be electronically tagged, prevented from going to certain places, or prevented from leaving their homes at certain times*; (iv) *Torturing people held in British jails who are suspected of involvement in terrorism to get information from them, if this is the only way this information can be obtained.*"

C   Survey Items: other dependent variables

Wording of survey items in the *British Survey of Social Attitudes (UK, 2005)* used as proxies of issues related to terrorist attacks.

- **Likelihood of terrorist threat:** "Please say whether you agree or disagree with each of the following statements. *It is very likely that there will be a major terrorist attack in Britain in the next couple of years.*"

- **Salience of terrorist threat:** "Please say whether you agree or disagree with this statement. *The threat of a terrorist attack in Britain is of great concern to me.*"

- **Human rights:** "Please say whether you agree or disagree with this statement. *International human rights law prevents the armed forces from doing their job properly.*"

- **In-group bias:** "Please say whether you agree or disagree with this statement. *Some people say that the same measures should apply to everyone in Britain, no matter where they are from. Others say stricter measures should apply to people who are from other countries.*"

- **Self-identification:** "Please say which, if any, of the words on this card describes the way you think of yourself. Please choose as many or as few as apply: (i) *British*; (ii) *English*; (iii) *European*; (iv) *Irish*; (v) *Northern Irish*; (vi) *Scottish*; (vii) *Welsh*; (viii) *Other answer (write in)*; (ix) *None of these.*"

- **Generalized trust:** "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?"

- **Political trust:** "How much do you trust British governments of any party to place the needs of the nation above the interests of their own political party?"

D   Principal component analysis

	Score of first Component			
	Compulsory ID	Control email/phone	Ban free speech	Ban protest
Privacy right $t = 0$	.54	.41	.57	.46
Privacy right $t = 1$	.51	.49	.52	.51
	Arbitrary detention	Torture suspect	Tag suspect	Deny trial
Procedural right $t = 0$	.53	.41	.54	.51
Procedural right $t = 1$	.54	.34	.54	.56

Table D.1: PCA components.

E   Sample Imbalance

We are going to focus on the effect of terror attacks on public opinion in the very short run. Control and treated units may, in both cases, be unbalanced on socio-economic covariates. This would, in turn, jeopardize the validity of our results. We control for this potential bias in two ways.

- **Entropy balancing.** Our outcomes may therefore be biased if treated units were significantly less educated than control ones and therefore more likely to prioritize security over freedom. Following Hainmueller (2012), we weight control units such that the distribution of covariates among control units match the moment conditions (until skewness) of the treated units. After this pre-processing, covariate imbalance between control and treatment groups becomes negligible. We run again the main specification after weighting the data and, as shown in Table E.1, we find very similar results. Hence, sample imbalance does not seem to be important in driving our outcomes.

- **Coarsened exact matching.** Following Iacus et al. (2012), we control for *ex ante* imbalance, by relying on non-parametric pre-treatment matching using *coarsened exact matching* Blackwell et al., 2009), and *ex-post*, by adding controls to the OLS regression that estimates the (sample) treatment effect on the treated. Pre-treatment matching reveals that the UK control and treatment groups are unbalanced on education, age and whether the respondent has children living at home (age only). I match control and treated units exactly on education, while coarsening age in five years interval before matching them. Table E.1 shows that treatment effects after outliers' extraction based on coarsened exact matching stay similar in spite of a substantial drop in the effective sample. we can hence rule out that our results be driven by outliers in either the control or treatment group.

	Privacy			Procedural		
	Very short	Short	Medium	Very short	Short	Medium
Main Table						
Treatment (0-1)	.215	.582***	.613***	.242	.684***	.440***
Std Error	(.174)	(.133)	(.138)	(.182)	(.135)	(.148)
N.obs	237	405	436	245	408	446
Entropy balancing						
Treatment (0-1)	.236	.591***	.613***	.267	.670***	.525***
Std Error	(.179)	(.135)	(.138)	(.178)	(.142)	(.141)
N.obs	237	405	436	245	408	446
Outliers' extraction						
Treatment (0-1)	.117	.521***	.483***	.102	.564***	.333**
Std Error	(.214)	(.149)	(.150)	(.218)	(.151)	(.162)
N.obs	180	299	306	189	308	316

Table E.1: Treatment effects
(Full model, Entropy balancing, Coarsened exact matching)

F   Further Robustness checks

- Table F.1 provides the treatment effect for a slightly different specification, in which the principal component analysis used to construct our main dependent variables is estimated twice: once before the attack and once after it. As such, we wish to account for the fact that, as the variance of answers might have changed after the attack, factor scores should weight more single survey items on which polarization in answers increased. Treatment effects are, however, extremely close to those in our preferred specification (labeled Main Table).

- Table F.1 also provides treatment effects estimated with an ordered logit estimator, to account for the fact that non-linear models may better fit the data generating process. Results are substantially unchanged.

- Figure F.1 provides the same analysis as for Figure 3 displayed in the main body of the paper, but focuses on two placebo attitudes related to government spending. On the left panel, we use a survey item that refers to spending in healthcare ("What should the government choose between taxation and social services?"). On the right panel, we use a survey item that refers to spending for carer ("Should government pay carer benefits to let carers stop working?"). In both cases, for any interval of time, we obtain nonsignificant treatment effects.

|	Privacy			Procedural		
	Very short	Short	Medium	Very short	Short	Medium
			Main Table			
Treatment (0-1)	.215	.582***	.613***	.242	.684***	.440***
Std Error	(.174)	(.133)	(.138)	(.182)	(.135)	(.148)
N.obs	237	405	436	245	408	446
			Alternative PCA assumptions			
Treatment (0-1)	.223	.571***	.594***	.236	.668***	.424***
Std Error	(.174)	(.131)	(.134)	(.180)	(.140)	(.147)
N.obs	237	405	436	245	408	446
			Ordered Logit estimator			
Treatment (0-1)	.255	.804***	.820***	.234	.819***	.481**
Std Error	(.233)	(.195)	(.196)	(.231)	(.191)	(.186)
N.obs	237	405	436	245	408	446

Table F.1: Further robustness checks.
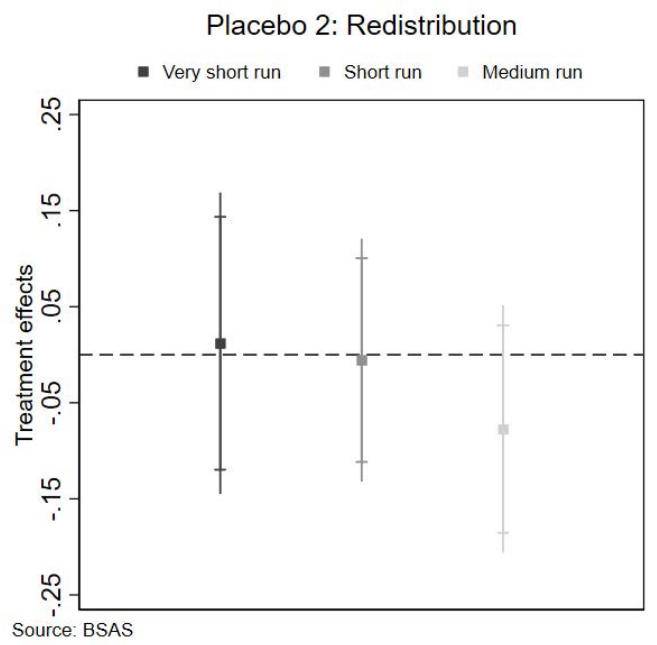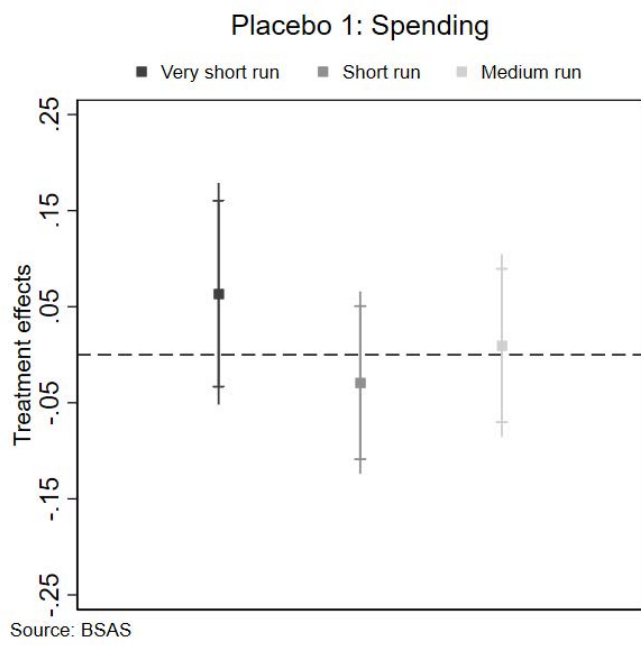
Figure F.1: Placebo issues

G   Disaggregated outcomes

- **By Region.** Table **G.1** provides treatment effects by region for the whole interval of time. Most of our data come from England. Outcomes presented in Table **G.1** must therefore be taken with care, as they are obtained from small samples.

- **By Survey Item.** Table G.2 provides treatment effects by survey item for the whole interval of time. As a general remark, we can see that, when focusing on the whole available period, treatment effects by items are all significantly positive. When looking closer to procedural rights, we find interesting outcomes. Indeed, the tougher the counterterror measure - including *e.g* torture or arbitrary detention, among the most worrisome extrajudicial practices, the greater the coefficient.

	Privacy				Procedural			
	London	Rest of England	Wales	Scotland	London	Rest of England	Wales	Scotland
Treatment (0-1)	.389	.427***	.448	1.083***	1.247*	.478***	-.231	.471
Std Error	(.519)	(.141)	(.791)	(.339)	(.631)	(.150)	(.826)	(.382)
N.obs	63	649	39	81	63	655	38	446

Table G.1: Outcomes by region.

	Privacy				Procedural			
	Phone/email surveillance	Compulsory ID	Ban protest	Ban free speech	Arbitrary detention	Deny trial	Tag suspect	Torture suspect
Treatment (0-1)	.219***	.350***	.246**	.313***	.339***	.225***	.129*	.321***
Std Error	(.079)	(.099)	(.097)	(.098)	(.087)	(.108)	(.076)	(.094)
N.obs	870	869	865	869	876	855	877	868

Table G.2: Outcomes by survey item.
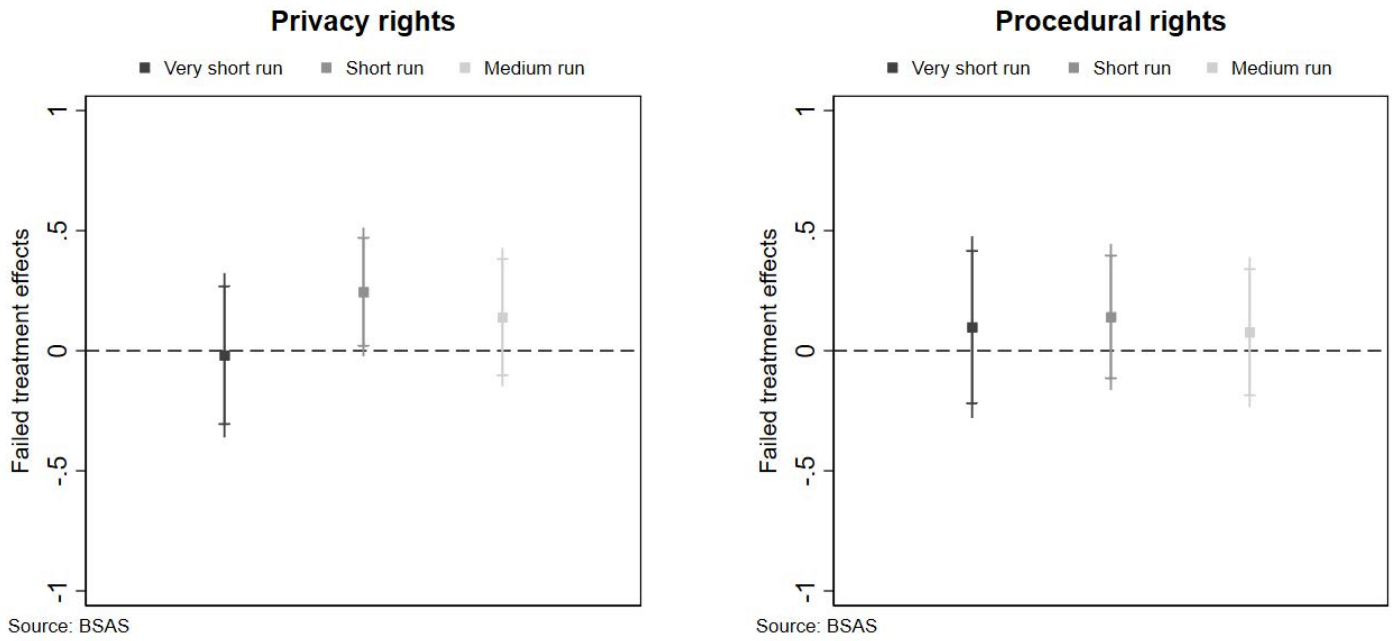
H Failed attacks, 21 July 2005

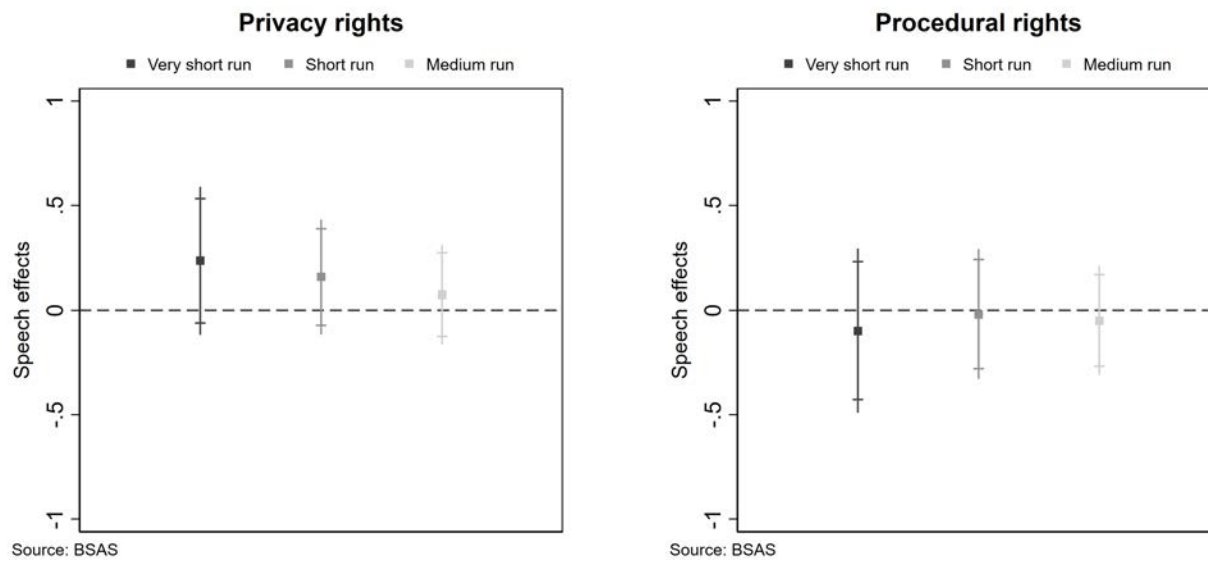Figure H.1: Failed attacks, 21 July 2005

I Blair Speech, 5 August 2005

Figure I.1: Tony Blair Speech, 5 August 2005

J Media coverage and sentiment analysis

To empirically estimate the role of the media after the July 7th London bombings, we analysed the population of articles published in UK national newspapers on the topic of terrorism from the 31st of May to the 24th of November, preceding and following the terrorist attack. We used the Nexis Newspaper Archive which holds a deep archive of media content with coverage going back decades and including content that is no longer publicly available online. It has comprehensive news coverage for the United Kingdom with over 400 national and regional titles and is considered to have full coverage of all main newspapers from the early 2000s. We focused on the national newspapers sample which include the following list of newspapers and their online websites: the Guardian, the Telegraph, the Times (including the Sunday Times), the Financial Times, the Daily Mail (including Mail on Sunday), the Independent, the Daily Star, the Daily Express, the Daily Mirror, the Observer and the Sun. We ran a keyword search of all articles in the newspaper sample that start with any form of 'terr' (hence including 'terror', 'terrorist', 'terrorism', 'terrorists', 'terrorize'), and downloaded all the articles this keyword search identified. Sometimes the same article may appear multiple times online, all duplicates were dropped. Over the 5-month period, this was over 15000 articles. We extracted the date and time stamp, newspaper and author of each of these articles. The majority of the following text mining was done using the Tidyverse package in R.

Figure J.1 displays the mentions of "solidarity." As in the main line, the first red vertical line denotes the date of the attack, the second marks the end of the very short run, the last corresponds to the end of the short run. As can be clearly seen, "solidarity" peaks just after the attacks, potentially explaining the increase in institutional trust we observe in our data (Table 2).

Figure J.2 looks at the mentions of other terms related to privacy and procedural rights. The picture is broadly consistent with our analysis in the main text. Words associated with security measures tend to pick in the short run relative to the very short run.

When individuals read newspaper articles, they use their understanding of the emotional intent of words to infer whether a section of text is positive or negative, or characterized by some more nuanced emotion like surprise or disgust. We can use the tools of text mining to approach the emotional content of text analytically. Our approach follows the most common approach (Silge, 2017) which is to consider the text as a combination of its individual words and the sentiment content of the whole text as the sum of the sentiment content of the individual words. The sentiment

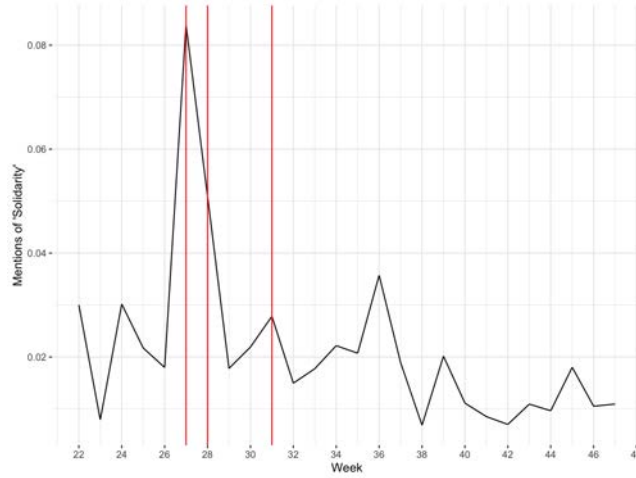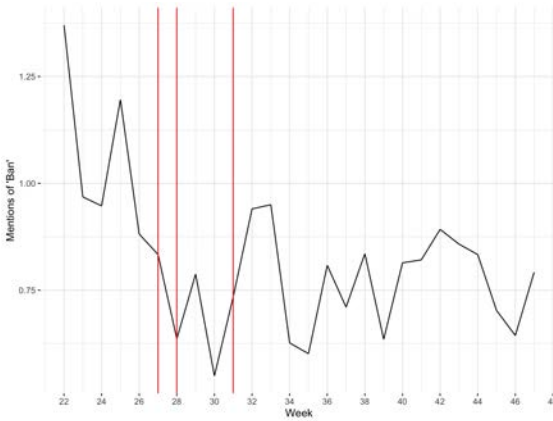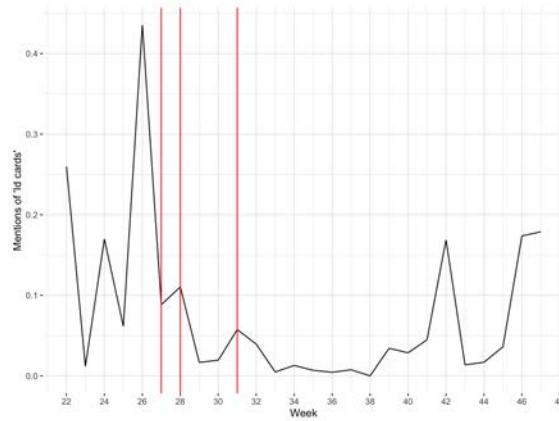Figure J.1: Mentions of 'Solidarity' in UK national newspapers

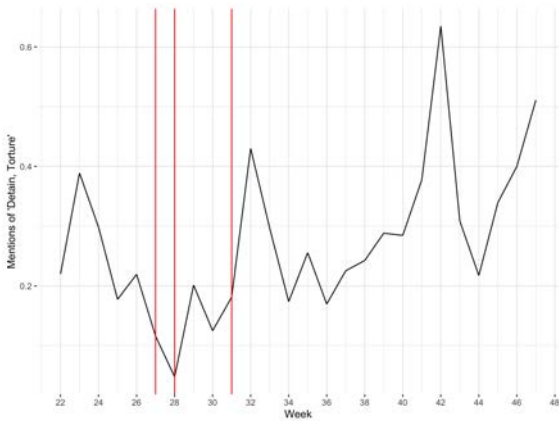Figure J.2: WEEKLY ARTICLES ON PRIVACY AND PROCEDURAL RIGHTS
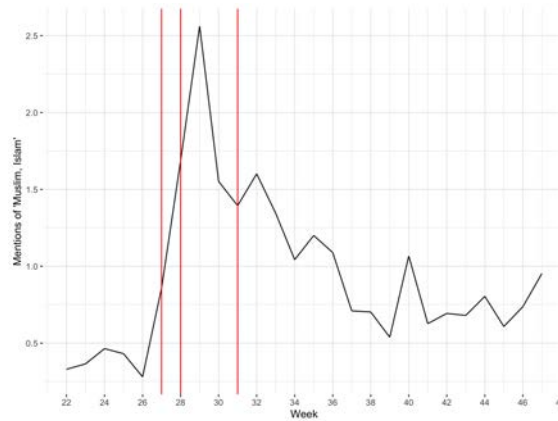
.

(a) **Ban**

(b) **ID cards**

(c) **Detain and Torture**

(d) **Muslim**

of individual words, unigrams, is defined by overlaying sentiment lexicons, one all stop words have been removed from the texts. The two general-purpose lexicons that we used in our analysis are NRC (Mohammad, 2013, Mohammad, 2015) and Bing (Bing, 2015). The Bing lexicon categorizes

words in a binary fashion into positive or negative categories. The NRC lexicon categorizes words in binary categories of the following non-exclusive sentiment: positive, negative, anger, anticipation, disgust, fear, joy, sadness, surprise, and trust. These lexicons contain many English words and are trained to classify texts such as newspaper articles. We will focus on our analysis on the relative measures of sentiment, i.e. the share of words of a given sentiment in the total words of all articles published on the given day. The result of this sentiment analysis is displayed in Figure J.3. No clear pattern emerges. This tentatively suggests that the reactions we document may not be related to the sentiments expressed in the media, that is, they were not related to appeal to emotions.

Figure J.3: SENTIMENT ANALYSIS

(a) **Count sentiment**   (b) **Mean Sentiment**
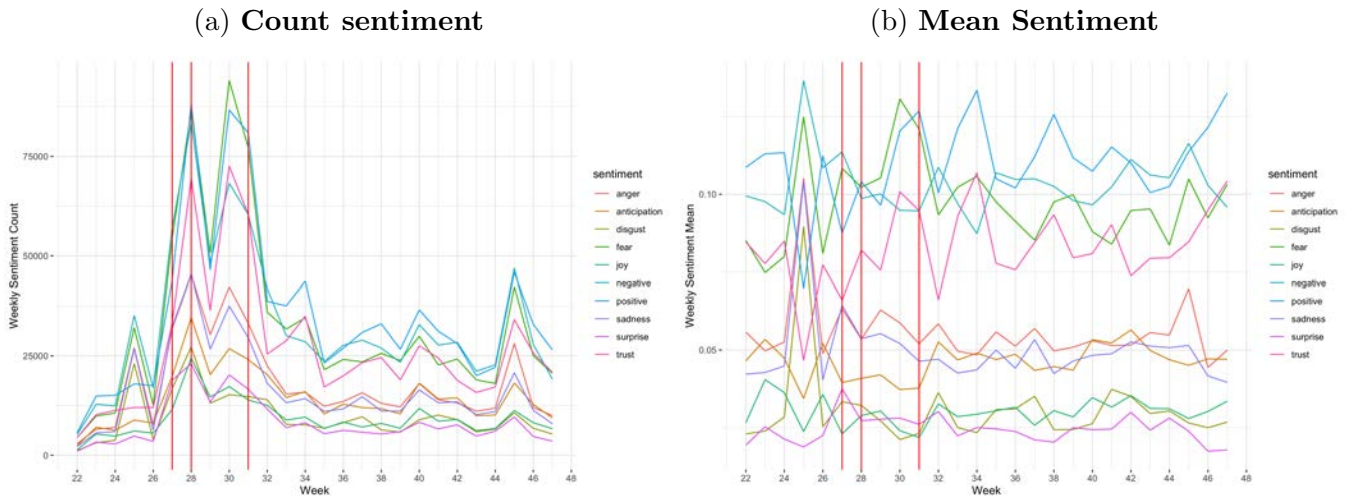
Note: This figure plots the daily measures of sentiment as calculated with the NRC lexicon. The left panel calculates the total words containing the given sentiment (anger, anticipation, disgust, fear, joy, negative, positive, sadness, surprise, trust) across all newspaper articles on terrorism that week. The right panel calculates the share of words containing the given sentiment (anger, anticipation, disgust, fear, joy, negative, positive, sadness, surprise, trust) across all words published in the all newspaper articles on terrorism that week.

Figure J.4 depicts the most frequently used words in newspaper articles on terrorism in the very short run (first week after the attack) and short run (first month minus the first week). As Figure J.4a reveals, the first week is dense of words that specifically refer to the terrorist event. "People", "attacks", "London", "train", "bus", "carriage", "bomb", "explosion", "blood", "screaming", *inter alia*, are the terms that recur most. The only word that could be related to privacy and procedural rights is "security". As we move forward in time, to the short run, other words become prominent. While we still find terms such as "people", "bombers", "attacks", "tube" and "train", we also observe a large number of references to "intelligence," "police," "suspect, "government," "war,"

"rights," "anti," etc. The word cloud depicted in Figure J.4b suggests that newspapers no longer solely focus on the attacks per se, but also consider their policy consequences and the necessary steps to prevent future attacks.

Figure J.4: WORD CLOUDS

(a) **Very short run**: first week
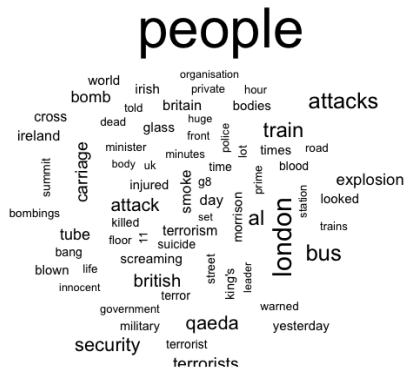
(b) **Short run**: first month

References

Bing, Liu. 2015. "Sentiment Analysis: mining sentiments, opinions, and emotions" *Cambridge University Press New York*.

Hainmueller, Jens. 2012. "Entropy balancing for causal effects: A multivariate reweighting method to produce balanced samples in observational studies." *Political analysis*, 2- (1): 25-46.

Iacus, Stefano M., Gary King, and Giuseppe Porro. 2012. "Causal inference without balance checking: Coarsened exact matching." *Political analysis*, 20 (1): 1-24.

Mohammad, Saif, Kiritchenko, Svetlana and Zhu, Xiaodan. 2013. "NRC-Canada: Building the state-of-the-art in sentiment analysis of tweets" *arXiv preprint arXiv:1308.6242*.

Mohammad, Saif M and Kiritchenko, Svetlana. 2015."Using hashtags to capture fine emotion categories from tweets" *Computational Intelligence*,31(2): 301-326.

Silge, Julia, and Robinson, David. 2017. "Welcome to Text Mining with R" *O'Reilly*.