# Threat and Information Acquisition: Evidence from an Eight Country Study

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#### Abstract

We assess individuals' responses to news about threat, compared to news about positive indicators of well-being, using data from nine experiments conducted across eight countries. The general proposition is that exposure to news about threat increases tendencies to "tune in" to information, compared to those presented with news about better times. The evidence strongly supports this expectation: without exception, the average respondent recalls and seeks more information about terrorist threat than good times. Further, this pattern of results generalizes to other threats. The study thematically and geographically extends research on negative information and political learning. It also has broader implications: absorbing newsworthy information is foundational to the types of attitudes citizens express and the extent to which, and how, they engage in the world around them.

**Keywords:** Information, negativity bias, threat, terrorism

#### INTRODUCTION

Do individuals shy away from or, instead, actively consume information about public threats? Most extant scholarship suggests that people privilege negative information, and some (but not all) argue that threats motivate attention, yet most research focuses on single-country contexts and information that is particularly relevant. Consider terrorism: while it has increased in global scope and lethality, experiences and concerns vary across countries. Does this variation lead to different responses to news about terrorist threat (vs. positive news), or does human nature spur heightened attention regardless of context? We lack consensus on this

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question. Where news of terrorism is *more* salient, some argue the public is prone to pay more attention to the threat (e.g., Merolla et al., 2011); however, others note that consistently high terror warnings may leave the public complacent with respect to news of terrorist threat (e.g., Hoffman et al., 2013). Where terrorism is *less* prominent, individuals may startle easily or, conversely, they could disregard what might seem to be out-of-left-field threats. Via a multi-country research design, we assess the degree to which people across distinct contexts react the same, or differently, to news of a collective threat. We focus on the case of international terrorist threat, yet also test the robustness of our conclusions to domestic terrorist threat, economic threat, and crime.

The general proposition we test is that individuals exposed to news about a pressing threat will be more inclined to "tune in" to this information, compared to exposure to more positive news. Consistent responses across distinct contexts, and across threats, would affirm the robustness of negativity bias—the tendency to privilege negative information—in the context of media stories about threat. We investigate this topic with data from nine original experiments conducted in eight countries in 2012. Five studies were conducted with near-nationally representative adult samples via internet panels in France, Spain, Turkey, the United Kingdom, and the United States. Another four were conducted in face-to-face interviews with representative adult samples in major urban areas in Albania, Ecuador, Peru, and Turkey. Each treatment condition contained one of a set of news stories about either a threat or "good times." Subsequent to this exposure to a news story, subjects responded to a survey that began with questions designed to measure information acquisition.

Across all nine studies, those presented with news of international terrorist threat demonstrate higher mean levels of information acquisition compared to those presented with positive news. Moreover, individuals in the threat conditions were more motivated to return to the article to acquire or confirm information. Furthermore, the pattern of results is robust to tests of reactions to news about domestic terrorist threat, potential economic recession, and a crime threat. Finally, they also hold in a follow-up study in which the information acquisition question is identical across experimental conditions. In short, this project demonstrates that the effect of news about pressing collective threats on the public's orientation toward information is exceptionally general. The effect is not conditional on whether the threat has saturated the environment, and is found consistently across different study modes, questions, and types of threat.

# TERRORIST THREAT AND INFORMATION ACQUISITION

A number of theoretical perspectives suggest that negative information that accompanies threat can stimulate attention and information seeking. We ask the

<sup>&</sup>lt;sup>1</sup>See also, among many similar articles, http://www.bloomberg.com/news/2011-04-20/napolitano-to-describe-replacement-system-for-color-coded-terror-alerts.html

following question: Is this tendency present in individuals irrespective of the status quo environment with respect to threat levels and experiences?

A long line of scholarship finds a tendency to privilege negative information (see, e.g., Baumeister et al., 2001). For example, individuals are more sensitive to losses than gains (Kahneman and Tversky, 1984; Slovic, 1969). Negative considerations of candidates are stronger predictors of feeling thermometer ratings than positive considerations (Lau, 1982). Many find that negative campaign advertisements have greater influence, especially with respect to conveying information, than positive advertisements (Freedman et al., 2004; Fridkin and Kenney, 2008; Geer, 2006; Lau, 1982; for a meta-analysis, see Lau et al., 2007). Negative ads also evoke a greater physiological response and individuals exposed to negative political ads are more likely to recognize information from those ads (though they also tend to over-report recognition of information; Bradley et al., 2007). In general, electrocortical activity in the brain responds differently when evaluating negative stimuli compared to positive or neutral stimuli (Ito et al., 1998). Some find that individuals in a negative emotional state, in particular an anxious one, are more likely to learn the issue positions of candidates (Brader, 2005, 2006; Marcus et al., 2000), pay attention to and learn about national security threats (Huddy et al., 2007), and seek out and retain threat-relevant information (Albertson and Gadarian, 2015; Gadarian and Albertson, 2014).

Negative information is more likely to draw one's attention, which in turn makes this information more effective in the formation of impressions of people or things, decision-making, and, the domain we are focused on, information acquisition. Why does negative information tend toward such strong effects? There are several different causal explanations for negativity bias. According to expectancy-contrast theories, given that most experiences are positive, negative information stands out as extreme, and thus it is more effective in shaping attention and decision-making (Helson, 1964; Lau, 1982, 1985; Sherif and Sherif, 1967; see also Fiske, 1980). A kindred explanation for negativity bias is found in frequency-weight theories, which posit that negative cues are more effective in that they are more informative or novel (Lau, 1982, 1985). Others argue that a mechanism lies in the negative emotions, particularly anxiety, that arise in reaction to threat (MacLeod and Mathews, 1988; Marcus et al., 2000). Negative emotions can activate a person's surveillance (threatdetecting) system, which "stimulates peoples' attention (Marcus and MacKuen, 1993, 678)." Underlying most, if not all, of these perspectives is the notion that a tendency to privilege negative information is a basic human trait, which evolved over time, as it has been beneficial to human survival (Baumeister et al., 2001). Our goal is not to adjudicate across the mechanisms highlighted in these different theories; they all suggest that the negative information that accompanies public threats should increase information acquisition.

Nonetheless, some scholarship runs counter to this expectation. For example, Nadeau et al. (1995) find that anxiety (absent hope) does not have the expected effects on learning, in the case of Quebec and language policy. Variation in the

emotions evoked by a threat could cause variation in information orientations. Terrorism tends to activate both anger and fear (see Carver, 2004; Harmon-Jones et al., 2009; Lerner and Keltner, 2000; Merolla and Zechmeister, 2009). While fear is associated with more thoughtful processing, individuals made angry may favor more direct action over information seeking and processing (MacKuen et al., 2010; Tiedens and Linton, 2001; see also Valentino et al., 2008). The particular context into which a threat enters may also matter. With respect to terrorism, countries vary in their experiences with plots and the degree to which the environment is already replete (or not) with threats. Against a norm of constant threat, positive information may be more novel and grab one's attention. In short, it is an open question just how robust is the notion that threat stimulates information acquisition across distinct countries and threat contexts.

# DATA AND METHODS

To test the degree to which a collective threat stimulates information acquisition, and to assess the generalizability of such a connection, we examine data from nine original experiments conducted in eight countries in the summer of 2012 (Merolla and Zechmeister, 2018). The countries were selected to provide a range of contexts along two key dimensions: nature of democracy and experience with terrorist attacks. In France, Spain, Turkey, the United Kingdom, and the United States, we implemented the study via the internet to near-nationally representative adult samples. In Turkey (again), Albania, Ecuador, and Peru, we embedded the study within face-to-face interviews of representative adult samples in the major metropolitan areas.<sup>2</sup> At the time, Spain, Turkey, the United Kingdom, and the United States had experienced an attack by Al Qaeda. France was a likely target for a future attack, and in the intervening years the country has experienced a number of atrocious attacks, including the Paris bombing attacks in the fall of 2015. At the time of the study and since, an international terrorist attack seemed quite remote in Albania, Ecuador, and Peru; however, the latter two countries had indirect and

<sup>2</sup>The online studies were fielded between August 15 and September 10, 2012 by IPSOS, which recruited predominantly from their proprietary online panels samples targeted to meet quotas that matched (as close as possible) national (census) statistics on the country's population. In these cases, the study was designed, translated, and programmed by the authors using Qualtrics and in conjunction with a consultant for each country (to aid with and review the translations). The face-to-face studies were implemented by reputable public opinion firms in each country; these firms aided with the translations and followed protocols for ensuring randomization (a random number generator was used to shuffle the numbered surveys prior to fieldwork). These studies were implemented in the major urban areas (metropolitan capital for Peru and Ecuador; large urban centers for Turkey and Albania), with a representative sample design drawn up by the firm (in Turkey: Infakto; in Peru: Instituto de Opinión Pública, Pontificia Universidad Católica del Perú; in Ecuador: PRIME; and in Albania: IDRA). The dates for the face-to-face studies were as follows: Turkey: June 29-July 18, 2012; Peru: August 17-31, 2012; Ecuador: August 4-16, 2012; Albania: July 6-August 3, 2012. Paper questionnaires were used for data collection; data entry was audited twice, once by the firm and once (via a random selection of 25 questionnaires) by the co-PIs. See Appendix Table 1 for basic sample characteristics. The study had IRB approval from the authors' home institutions.

	Good times	Int'l terror	Int'l terror reminder	Terror domestic	Eco. threat	Crime threat
Albania: face-to-face	121	123	116		117	
Ecuador: face-to-face	101	101	97	100		101
Peru: face-to-face	153	150	151	155		
Turkey I: face-to face	117	124	125	112		
France: online	183	184	195		188	
Spain: online	194	193	181	192	188	
Turkey II: online	185	203	191		176	
United Kingdom: online	190	200	200		204	
United States: online	186	201	177		196	

Table 1
Countries, Mode, and Observations in Study Treatment Conditions

direct experience with domestic terrorism, something that we took into account in the study design.

The basic study protocols were standardized. Participants first consented to the study, and then responded to a pre-treatment survey that asked about demographic and socioeconomic characteristics and political predispositions. The subjects were randomly assigned to a "good times" news condition or a "threat" news condition.<sup>3</sup> Those in the treated conditions were asked to read a news story. They were then asked two close-ended questions that asked them to recall two facts from that article, with the option to consult the news story as needed. They were then asked questions about their emotional state and others not focused on here, and then were debriefed.

Our focus is on individuals assigned either to the good times condition or a threat condition. Table 1 presents the number of observations within each of these cells (and mode), for each country. The core feature of the experimental design is the set of short (~400 to 500 words) news stories that were randomly assigned to treated subjects and followed a similar template across all countries (see the Supplementary Appendix for experimental treatments). For all treatments, the information presented was drawn from actual sources but edited together by the authors and modeled after instruments used in similar types of research (e.g., Gadarian, 2010; Merolla and Zechmeister, 2009).

The intention of the good times news story was to present positive indicators from around the world and within the country. The treatment begins with a statement that the country is "headed toward a time of increased well-being." It refers to positive trends in areas such as education, the environment, and health in the country and, as well, the world. The first paragraph ends with a note that,

<sup>&</sup>lt;sup>3</sup>The study also included one other international threat condition for the United States; results are consistent for this condition as well, but we omit it for parsimony. We also included a control group but omit discussion of this condition because it did not expose individuals to news/information.

according to a recent survey, a "majority" in that country report "moderate to high levels of life satisfaction." The next four paragraphs focus on positive information about education, the environment, science (e.g., energy use), and health and welfare. Each paragraph situates information about the country in the context of broader, global positive news.

We included two international terrorism threat conditions, which varied only with respect to the last paragraph: for reasons unrelated to this study, one condition (labeled Int'l terror in Table 1) did not end with a reminder of democratic values, while the other did (labeled Int'l terror reminder in Table 1). In four cases, we also included a domestic terrorist threat news story (Ecuador, Peru, Spain, and Turkey face-to-face); in six cases, we included an economic threat story (Albania, France, Spain, Turkey online, the United Kingdom, and the United States); and in one country we included a story about crime as a threat (Ecuador). This allows us to check the robustness of our conclusions to news of other threats.

For the international terrorist threat news story, the first paragraph referenced warnings that the country is "on the brink of experiencing a major terrorist attack," placed this in the context of increased global vulnerability, and noted that a majority of individuals in the country are somewhat to very worried about a future attack. The next paragraph referenced the increased danger posed by terrorism and referenced the 2008 Mumbai, India attack by Al Qaeda. The third paragraph referenced Al Qaeda's intentions to continue to mount coordinated, lethal attacks on citizens in various public areas. The fourth paragraph referenced the risk of biological and chemical weapons. The fifth paragraph referenced a statement by a public official about the lethal intentions of terrorists. The international terrorist threat with a reminder of democratic values news story differed only in that it ended with an additional, final sentence that referenced a statement by all leaders in the political system urging people "to protect democracy" by adhering to "core democratic values, such as liberty and tolerance, and respect for fundamental democratic practices, such as free and fair elections and an independent judiciary."

The domestic terrorist news, economic recession, and crime stories also were developed with a common structure. The Supplementary Appendix contains the outline (in English) of the treatment followed in each country and the full (language-specific) treatment used in each respective case.

As a manipulation check, we included questions to assess the extent to which the threat conditions increase negative emotions and decrease positive emotions relative to the good times conditions. Respondents were presented with 10 emotions, as recommended by Marcus et al. (2006) and asked, for each one, to "indicate to what extent you are feeling this way right now" on a 1–5 scale. The emotions are: Afraid, Anxious, Worried, Enthusiastic, Hopeful, Proud, Hatred, Contempt, Bitterness, and Resentful.

We performed a principal components factor analysis on the 10 questions for the pooled dataset, and found 3 factors with eigenvalues over 1.0. The first (eigenvalue

3.94) is characterized by negative emotions related to anger, with high rotated factor loadings for hatred, contempt, bitterness, and resentful ( $\geq$ 0.75). The second (eigenvalue 2.07) is characterized by negative emotions related to fear, with high rotated factor loadings for afraid, anxious and worried (0.81 and higher). The final factor (eigenvalue is 1.08) is characterized by positive emotions, with enthusiastic, hopeful, and proud loading highly ( $\geq$ 0.78). We regressed dummy variables for the international terrorism threat conditions (the only threat conditions included in all studies) on each emotions factor. Individuals in the international terrorism conditions are significantly more angry and less positive than individuals in the good times condition (p < 0.001). We do not find a significant difference on the anxiety/fear factor. Thus, the terrorism treatments were effective in increasing some negative emotions and decreasing positive emotions relative to those in good times.<sup>4</sup>

Our core dependent variable is based on the two close-ended questions that were asked following presentation of the news stories (and prior to the emotions battery). During this time, the participants were offered the chance to return to the article. The first question was very similar across all treatment conditions. It referenced survey results that were found in the first paragraph of each article,<sup>5</sup> and asked whether the finding applied to "more than half" or "less than half" of those interviewed. For the good times condition, the question asked about the proportion reported to be moderately to highly satisfied with their lives; in the case of the terrorist threat condition, the question asked about the proportion worried about the threat of terrorism. In both cases, the correct answer (per the news story) is more than half. The second question was also dichotomous and varied across treatments. For good times, the question was whether the news story reported that global air quality has improved or deteriorated in the past decade (correct answer is improved); for the international terrorist threat conditions it asked whether more or less than 100 people were killed in Al Qaeda's attack in Mumbai (the correct answer is more than 100).6

#### RESULTS

Are individuals presented with news about terrorist threat motivated to acquire and recall more information than those who are presented with news about "good times?" The data allow us several ways to triangulate over this question. First,

 $<sup>^4</sup>$ We also included the control condition in the analysis as the baseline. The terrorism treatments increase anger and decrease positive emotions relative to the control group (p < 0.001). There are no significant differences between the control and the good times conditions, indicating that the latter should be considered a neutral news condition as opposed to a condition that evokes a strong positive affect. See Appendix Table 2 for results.

<sup>&</sup>lt;sup>5</sup>The wording of the sentence was also the same, minus the focus on the given threat or life satisfaction. <sup>6</sup>The correct answer was placed after 121 and 147 words, respectively, for the Terror and Good Times conditions.

we created an *Information Acquisition* tally (0, 1, or 2) of the number of correct responses individuals gave to the two post-treatment questions. We assess our expectation first by comparing differences in values on this measure between the good times condition and each terrorism condition.<sup>7</sup> As a robustness check, we also assess correct responses to only the first question, which was more similar across conditions.<sup>8</sup>

Figure 1 presents mean values on *Information Acquisition* for the good times and the international terrorist conditions; the whiskers represent 95% confidence intervals. Across all nine studies, *without exception*, the mean is higher in the threat conditions compared to good times. As the variable is trichotomous, we assess differences using chi-squared tests. The difference between the terror threat and the good times conditions is significant at p < 0.01, in 16 out of 18 tests. To probe further, we examined just the proportion who gave a correct response to the first question, which was more standard across conditions. In each case, a higher proportion responded correctly in the terrorism conditions compared to good times. In 12 out of 18 pairwise comparisons (via difference of proportion tests), the difference is statistically significant at p < 0.1, two-tailed (see Appendix Figure 1). In sum, we find strong support for our expectation: those in terror threat

<sup>7</sup>We checked for balance across experimental conditions on a set of socio-demographic measures that were comparable across countries (age, gender, years of education, and employment status). We only found one case of imbalance, which is in the case of the France study with respect to education. That said, the differences are not substantively meaningful (mean for each condition as follows: Good Times = 14.85; International Terror = 15.25; International Terror Reminder = 15.97). See Appendix Table 3 for a summary of the balance check results.

<sup>8</sup>One might question whether individuals' priors confounded the study. Specifically, if the average individual in the survey was worried about terrorist threat, then there could be a tendency to guess that most people are worried, while people might be more uncertain about whether people are satisfied with their individual lives. If true, it may be easier to guess the first terrorism question correctly. We can get a handle on priors in the study by looking at a question that asked how worried individuals are about a violent terrorist attack. Given that the response options map onto the text in the treatments, we can look at the proportion who say they are somewhat or very worried about a violent terrorist attack in the control group (unaffected by the treatments). Examining the data for the control condition, we find that only in two of the eight countries are the majority of respondents somewhat or very worried about terrorist attacks (see Appendix Table 4 for results across countries). Therefore, we presented information to participants in most countries that runs against priors that would be formed via self-reflection by the average respondent. Further, we get similar findings even though priors vary across countries. While we did not have a comparable question for life satisfaction, if we look at available data from the World Values survey around the time of our studies (see Appendix Table 5), a majority of respondents in each of the available countries are satisfied with their lives, which is consistent with the information presented in the Good Times condition. If this type of information is consistent with priors, it should have been easier to answer the question. This allows us greater confidence in our assertion that it is the threat per se, and not mere luck in guessing influenced by prior beliefs, that underlies our results.

<sup>9</sup>In two cases, the *p*-value is just outside a conventional cut-off for significance (for the Turkey face-to-face study, a chi-squared test of the difference between good times and terror threat without the reminder conditions yields a *p*-value of 0.14; the same is the case for the comparison in the United States between the good times and the terror threat with reminder conditions). In all cases of the analyses presented here, missing values are coded to 0.

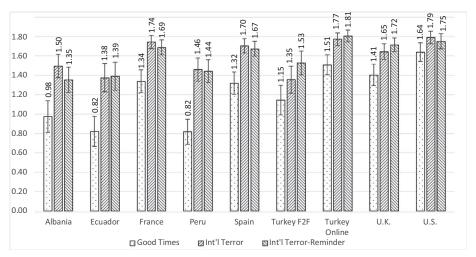


Figure 1
Mean Information Acquisition Levels across Treated Conditions, by Study

conditions demonstrate having attained more correct information than those in the contrasting "good times" condition. <sup>10</sup>

How robust is this finding to other threat conditions? We also examined information acquisition for those in the four domestic terrorist threat conditions (included in the studies in Ecuador, Peru, Spain, and Turkey face-to-face). In each case, mean *Information Acquisition* is significantly higher in the domestic terrorist threat conditions than in the good times condition, and these differences are significant according to chi-squared tests (p < 0.01, in three cases; p < 0.02 in the case of Turkey face-to-face study; see Appendix Figure 2 for values). We then extended our analysis to the other threat conditions included in the study: economic threat (Albania, France, Spain, Turkey Online, United Kingdom, and United States) and crime threat (Ecuador). In every case, *Information Acquisition* is higher in the threat condition, and each chi-squared test is significant at p < 0.01

<sup>&</sup>lt;sup>10</sup>The size of the difference in information acquisition levels across treated conditions varies across the countries. Figure 1 shows that in Albania, Ecuador, and Peru, mean information acquisition in at least one terror threat condition is more than 1.5 times that found in the good times condition. In other cases, the difference is less substantial, for example, in the United States case. Though it might appear that a country's vulnerability to international terrorism mutes the effect of exposure to the threat stories, we caution against such a conclusion. First, there are numerous other differences across this distinct set of countries, as well as across the cases in terms of design (e.g., country-specific wording) and implementation (e.g., mode). Second, when we look at information acquisition in Albania, Ecuador, and Peru for the other threat treatments included (compared to good times; see Appendix Figure 2), we find large differences there as well. Though it was not a goal of this particular study design, it would clearly be worthwhile for future research to hypothesize over, and test for, cross-national variation in the magnitude of information acquisition effects.

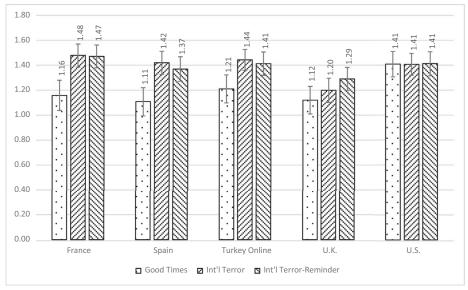


Figure 2
Mean on Mere Recall, by Online Study

(see Appendix Figure 2). In short, the results are robust across threat types and country contexts.

The study further contains a behavioral component, which allows us to ask whether individuals were more likely simply to recall the information, were motivated to become sufficiently engaged to answer the questions correctly, or both? In short, we can assess whether people merely acquired more information from the threat news stories on the first read, or whether some were induced to put more effort into seeking accurate information. In the online studies, the subjects were provided the opportunity to return to the article prior to answering the question, and that process was recorded—that is, we have a variable that indicates whether the individual answered the question on the first attempt or selected to return to the news story and then come back to answer the information question. As a measure of mere recall, individuals are counted as correctly answering each information question if they got it correct on the first attempt, with those who got it wrong or those who returned to the article coded as 0. We add together the two to create a "mere recall" measure, scored 0, 1, or 2. We further look at those who chose to return to the article rather than answer on the first try. This reflects engagement in the sense of being motivated to pursue correct answers. We created a dummy variable for whether the subject returned to the article for each question, and then add these together to create a "motivated to return" measure (0, 1, or 2). We display results for Mere Recall in Figure 2 and for Motivated to Return in Figure 3.

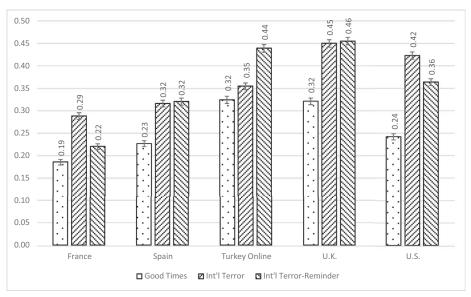


Figure 3
Mean on Motivated to Return, by Online Study

As per Figure 2, the mean number correct on *Mere Recall* (that is, correct answers among those who did not return to the article) is fairly high. More importantly, in all cases except the United States study, those in the international terror threat conditions were more likely to answer correctly on the first attempt (leaving the United States case aside, a chi-squared test of the difference between the respective threat condition and the good times condition is significant at p < 0.1 for each of the eight comparisons).<sup>11</sup> This provides evidence that, on average, a terror threat news environment stimulates immediate attention and strong recall.

As per Figure 3, we find that tendencies to return to the news story prior to answering the questions are higher in each of the international terrorist threat conditions compared to the good times condition. As the measure is trichotomous, we performed chi-squared tests of the difference between good times and the international threat conditions, and find statistically significant results in four of the ten comparisons at p < 0.1 (and in four additional cases if a higher threshold is considered, p < 0.2). Though not shown here, the same pattern is found for the domestic terror threat condition included in the Spain study and the economic threat conditions included in these five studies. In short, threat motivates individuals to pay close attention (making them more likely to get it right on the first attempt, mere recall) and, among some, it increases motivations to seek out correct answers when provided the opportunity.

<sup>&</sup>lt;sup>11</sup>For both Figures 2 and 3, whiskers represent 95% confidence intervals on the mean values. See Appendix Table 6 for details on the chi-squared tests between the experimental conditions.

As a final test, we examine a different, directly comparable information question from a United States online study that was conducted in 2016 for a separate purpose. Across all conditions, the study contained an identical question, which asked subjects to recall how many paragraphs were in the article they read (correct response = 1, 0 otherwise). The study included a similar terrorism treatment to the one in 2012, and also had three other terrorism conditions that referenced either Hillary Clinton's stance on the issue, Donald Trump's stance, or both. The terrorism only condition had four paragraphs, while the ones with Clinton's stance, Trump's stance, and both stances, all had six paragraphs. The good times story was different: it focused on only one topic, was more engaging, and was nonpolitical (it was about a dog who gained fame on Facebook). It also had six paragraphs. Per difference in proportions tests to compare across good times and each terrorism condition, we find significantly higher rates of recall for the conditions with terrorism news only (p < 0.01, two-tailed), terrorism with Clinton's stance (p = 0.02, two-tailed), and terrorism with both candidates' stances (p = 0.01, two-tailed). The proportion correct also is higher in the terrorism with Trump's stance condition, though outside a conventional significance level (p = 0.18, two-tailed).<sup>12</sup> In short, the notion that collective threat provokes information acquisition proves quite robust.

## CONCLUSION

Scholars of public opinion and political behavior have identified a number of differences in the ways in which citizens evaluate and engage in politics under threatening versus better times. We take a step back from political evaluations and behaviors, *per se*, and examine differences in the extent to which individuals acquire and recall information offered by two distinct news environments: one characterized by threat and the other characterized by indicators of well-being and progress. Given that absorbing relevant information is foundational to the types of attitudes citizens express and the extent to which, and how, they engage in the world around them, it is important to understand how information acquisition and recall differs across bad and good times.

Across nine studies in eight countries, we find strong evidence that individuals are more likely to acquire and recall information when presented with news about threat than with news about better times. In addition, we find similar results in a follow-up study with a question that is identical across conditions and yet peripheral to the actual information content.

 $<sup>^{12}</sup>$ See Appendix Table 7. These findings are for the first attempt at answering. We do not find differences for motivation to return. If we look at whether respondents answer correctly after having a chance to return to the article, there is no longer a significant difference relative to the terrorism Clinton condition (p = 0.5). These differences with the main study presented here could be because the question is not about the content of the news story and/or could be because the Good Times story was more engaging. Both these possibilities point to directions for future research.

The study environment is intentionally artificial so as to increase internal validity, and this comes with some costs to external validity. We bolster against this by using layered news reports with information drawn from actual sources and by drawing from near representative samples of adults in major metropolitan areas and countries. As Shadish et al. (2002) instruct, external validity is about finding similar results across modes, places, subjects, and instruments. We find similar patterns of results across different modes (online versus face-to-face), across distinct countries, and across stories that varied in small (across the international terrorist threat conditions) to larger (across all threat conditions) ways. Thus, the study provides important perspective on general human inclinations toward threatening (versus positive) news. Simply put, it is human nature to pay more attention to bad news about one's environment as opposed to positive news.

# SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit https://doi.org/10.1017/XPS.2018.4

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