Shipwrecks, Terrorist Attacks and Asylum Decisions in France*

Mathilde Emeriau†

August 21, 2020

Abstract

Are expert decision-makers affected by irrelevant but domain-related events? I analyze the effect of migrant shipwrecks and terrorist attacks on asylum decisions in the context of the recent refugee crisis. Combining administrative data from the French asylum office with data on migrant shipwrecks in the Mediterranean and terrorist attacks in France, I find that asylum officers are more generous when deciding an individual's refugee status after, rather than before, a shipwreck. This generosity is not seen following terrorist attacks, with asylum officers less likely to grant refugee status to asylum seekers from Syria and Iraq. These effects are sizable but short-lived, lasting only a day following the event, and they are not reduced as asylum officers gain experience. I argue that these events affect refugee status decisions by momentarily increasing asylum officers' subjective cost of denying a legitimate claim (for shipwrecks) and granting an illegitimate claim (for terrorist attacks).

Word count: 9,349

*This research is based upon work supported by the National Science Foundation Grant No. 1624048 (Principal Investigator: David D. Laitin), the Stanford Immigration Policy Lab, The Europe Center and the France Stanford Center for Interdisciplinary Research. I am also grateful to Pascal Brice, Aline Angoustures and the members of OFPRA's scientific committee who authorized this research. I thank Jens Hainmueller and David Laitin for invaluable guidance in designing and implementing this research. Vicky Fouka, Justin Grimmer, Judith Spirig, Stephane Wolton and seminar participants at the Immigration Policy Lab, EuroWEPS and WZB provided helpful comments on earlier drafts.

†Department of Government, London School of Economics and Political Science, and Immigration Policy Lab, Stanford University. m.emeriau@lse.ac.uk

1 Introduction

Since the beginning of the refugee crisis in 2015, over four million refugees, fleeing wars in the Middle East and Africa, have arrived in Europe hoping to find a safe haven.[1] Many have risked their lives crossing the Mediterranean Sea, and more than 15,000 migrants have been reported dead or missing on their journey to Europe.[2] Tragic shipwrecks of boats carrying migrants in the Mediterranean Sea have made headlines worldwide and attracted attention to the developing humanitarian crisis.[3] At the same time, the European Union witnessed renewed terrorist activity, with a record number of 211 terrorist attacks and 151 fatalities in 2015 alone,[4] fueling fears that terrorists are entering Europe undetected as a part of the influx of migrants.[5]

In this context, European countries face a fundamental challenge: how to provide shelter to those fleeing persecutions, while simultaneously preserving national security. European leaders have been split in their response to this crisis. While Chancellor Angela Merkel opened Germany's borders and allowed hundreds of thousands of people to enter Germany in 2015, Poland, Hungary and the Czech Republic cited national security concerns when they refused to take part in the European Council's emergency response that aimed to relocate 160,000 asylum seekers from Italy and Greece.[6] What is less known is whether migrant shipwrecks and terrorist attacks also directly impacted the decisions of bureaucrats examining asylum applications. At the forefront of this crisis, asylum officers across Europe face the difficult task of determining who should get refugee status. Witnessing migrant shipwrecks is a visible reminder to asylum officers of the difficult and risky journey that migrants undertake to arrive in Europe, while terrorist attacks are reminders that letting in

[1] Eurostat, Asylum applications (non-EU) in the EU-28 Member States, 2009–2019

[2] UNHCR, "Refugees/migrants emergency response — Mediterranean" http://data.unhcr.org/mediterranean/regional.php (Accessed on May 2, 2020)

[3] New York Times, April 19, 2015 "Hundreds of Migrants Are Feared Dead as Ship Capsizes Off Libyan Coast"

[4] European Union Terrorism Situation and Trend Report (TE-SAT) 2019

[5] New York Times, November 14, 2015, "Three Teams of Coordinated Attackers Carried Out Assault on Paris, Officials Say; Hollande Blames ISIS"

[6] NYT, April 2, 2020, "E.U. Court Rules 3 Countries Violated Deal on Refugee Quotas"

even a single potential terrorist can have tragic consequences. Yet, in the short run, these events should have no bearing on asylum officers' decisions since the events are irrelevant to the refugee cases officers examine on a daily basis.

With recent data on asylum decisions often unavailable to researchers, most studies have been unable to analyze the impact of these events in the context of the refugee crisis. This study addresses this gap by analyzing the short-term (daily) effect of migrant shipwrecks and terrorist attacks on asylum decisions in France. With terrorist attacks resulting in 148 dead and 350 injured in 2015, France was the hardest hit by terrorist activities among European countries that year.[7] I combine non-publicly available data on a representative sample of 22,543 asylum applications — 38 percent of all applications filed at the French asylum office in 2015 — with data on migrant shipwrecks from the Missing Migrant project and terrorist attacks from the Global Terrorism Database. To estimate the causal effect of these events on asylum decisions, I leverage the fact that the date of the interview, mandatory since 2006, is set weeks in advance such that the timing of these events is plausibly exogenous to the type of applicants interviewed on a particular day.

This study reveals that bureaucrats at the French asylum office are affected by events that should have no bearing on their decisions. First, I find that they are more generous with asylum seekers interviewed the day following a migrant shipwreck. The effect is substantial since those interviewed the day after a shipwreck are two percentage points more likely to be granted refugee status compared to those interviewed on any other day. As we would expect, this effect is stronger for deadlier shipwrecks and for shipwrecks featured on prime-time news broadcasts. Second, even though there is no effect of terrorist attacks overall, I find that Syrians and Iraqis interviewed the day after a terrorist attack were 19 percentage points less likely to be granted refugee status compared to their co-nationals interviewed on any other day. Importantly, asylum seekers from other Muslim-majority countries are not penalized for being interviewed after a terrorist attack.

[7] European Union Terrorism Situation and Trend Report (TE-SAT) 2016

I argue that these events affect asylum officers' decisions by momentarily increasing the subjective cost of denying a legitimate claim (for shipwrecks) and of granting an illegitimate claim (for attacks). Dramatic events such as these provide asylum officers with vivid representations of highly undesirable outcomes and, as a result, increase the loss that asylum officers anticipate as a result of an incorrect decision. Two patterns suggest that this is a more plausible explanation than alternative mechanisms. First, the fact that migrant shipwrecks have a positive effect on asylum decisions — even though they do not bring specific aspects of bureaucrats' identity (such as religion) to the forefront — suggests that ingroup bias resulting from the activation of social identity (Shayo and Zussman, 2011) can only be part of the story. Second, the fact that experienced bureaucrats are no less likely than inexperienced bureaucrats to be subject to the effect of these events suggests that the mechanism at play is insensitive to belief updating, such that biased probability assessments arising from the use of the availability heuristic (Tversky and Kahneman, 1973) is not the most likely explanation.

This study contributes to a growing area of research on the effect of extraneous events on expert decision-making. While a number of studies examine the effect of terrorist attacks on judicial and asylum decisions (Avdan, 2014; Brodeur and Wright, 2019; Holmes and Keith, 2010; McConnell and Rasul, 2020; Mensah, 2018; Rottman et al., 2009; Shayo and Zussman, 2011), all examine the effect of attacks over the course of several months, sometimes years. The focus on the short-term effects of terrorist attacks in this study represents both a methodological and a theoretical contribution. First, comparing applicants interviewed within days of an event alleviates concerns that differences in outcomes result from a change in the composition of applicants after the event. Second, this study expands our understanding of the ways in which attacks affect asylum decisions by providing suggestive evidence that they temporarily change the subjective cost associated with potentially granting illegitimate claims. More broadly, this study contributes to a literature on the effect of recently renewed terrorist activity in Europe on discrimination (Böhmelt et al., 2019; Glover, 2018; Wagner

and Petev, 2019).

This study also contributes to a recent literature on the short-term effects of extraneous events and contextual factors — like the weather (Chen and Loecher, 2016; Evans and Siminski, 2020; Heyes and Saberian, 2019), fatigue (Danziger et al., 2011) and even football games (Eren and Mocan, 2018) — by focusing on domain-related events, or events that substantively relate to the decision at stake. In particular, the present study expands on the findings by Philippe and Ouss (2018) — who show that jurors in French criminal courts update both upward (news about crimes on TV increase sentence lengths) and downward (news about judicial errors decrease sentence lengths) — in three distinct ways. First, this study uncovers that expert decision-makers, not just laymen, adjust both upward and downward in response to domain-related events. Second, it reveals that experienced decision-makers are not less likely than inexperienced ones to respond to these events. Third, using detailed micro-level data, I arbitrate between three possible mechanisms, a crucial first step toward designing solutions to mitigate the influence of irrelevant events on decision-making.

The remainder of the paper is organized as follows. I start by providing background information on the asylum decision process in France. I then outline three possible mechanisms through which irrelevant but domain-related events can affect asylum decisions. Next I present the research design before discussing the results. The final section concludes.

2 Background

In 2015, the European Union recorded 1.3 million first-time asylum claims, up from 600,000 in 2014.[8] Due to the Dublin Regulation, an EU law that dictates that the country of first entry of the asylum seeker is the country responsible for assessing her claim, countries within the EU shared this influx unequally, setting the seeds for the political crisis that ensued. While Germany received 442,000 asylum applications in 2015, France only received approximately

[8]Eurostat, Asylum applications (non-EU) in the EU-28 Member States, 2009–2019

60,000 asylum applications,[9] with Sudan, Syria, Kosovo, Bangladesh and Haiti accounting for the highest numbers of applications that year.[10]

In France, the decision to grant or deny asylum claims is the prerogative of the French asylum Office for Refugee Protection and Stateless Persons (OFPRA), referred to as the "French asylum office" through this paper. Created in 1952 as an independent administration, the French asylum office was initially placed under the jurisdiction of the Ministry of Foreign Affairs and transferred in 2010 to the Ministry of Interior. In 2015, the French asylum office employed 575 asylum officers to examine asylum claims and determine whether applicants are eligible for refugee protection.[11] Those persecuted for reasons of "race, religion, nationality, membership of a particular group or political opinion" can claim protection under the 1951 Geneva Convention and receive a 10-year residency permit.[12] Since 2003, those who do not meet the Geneva definition but who face the "death penalty, torture or indiscriminate violence in the context of an internal or international armed conflict" are eligible to a one-year residency permit under a subsidiary protection.[13]

To decide whether to grant refugee status, asylum officers working at the French asylum office read the applicant's personal narrative in which she describes the reasons she needs refugee protection before calling her for a face-to-face interview, mandatory requirement starting in 2006. During this interview, the asylum officer questions the applicant to determine whether her claims of persecution are established. Following the interview, the officer sends his supervisor a recommendation to grant or deny the applicant refugee status. Of the 59,335 asylum seekers who applied for refugee protection at the French asylum office in 2015 approximately one-fifth were granted refugee status following the first examination.[14] Among those rejected, three-quarters appealed, and 18 percent of those individuals were

[9] Pew Research Center August 2, 2016, Number of Refugees to Europe Surges to Record 1.3 Million in 2015

[10] OFPRA 2015 Activity Report

[11] OFPRA 2015 Activity Report

[12] Article 1(A)2 of the 1951 Geneva Convention Relating to the Status of Refugees.

[13] Article L.712-1 of the Code de l'entrée et du séjour des étrangers et du droit d'asile (CESDA)

[14] OFPRA 2015 Activity Report

granted refugee protection by a three-judge panel.

Were asylum officers affected by the dramatic events that unfolded in the first years of the refugee crisis? We know that expert decision-makers are influenced by irrelevant events. Danziger et al. (2011) for instance find that judges on parole boards in Israel are more likely to deny requests before they take a food break compared to after, suggesting that expert decision-makers can be subject to mental fatigue. Examining the effect of unexpected outcomes of football games on rulings by judges in juvenile courts in Louisiana, Eren and Mocan (2018) find that upset losses of local football teams increase sentence length by provoking anger and frustration, while upset wins have no impact. And Heyes and Saberian (2019) show that an increase in outside temperature reduces the number of favorable judicial decisions. Overall, these studies suggest that expert decision-makers are subject to fatigue and emotions, both of which make them more likely to deny requests or increase sentence lenghts.

The short-term effect of domain-related events, or events that substantively relate to the decision at hand, on expert decision-makers has received comparatively less attention. Psychologists have studied the effect of stimuli on subjects' behaviors for a long time. They first demonstrated that exposure to trait adjectives in the lab could impact subjects' judgment of a person in a subsequent unrelated task (Bargh and Pietromonaco, 1982; Srull and Wyer, 1979, 1980; Tory Higgins et al., 1977). Since then, this literature has rapidly expanded to show that it is possible to change how people think and act by exposing them to a stimulus. Building on this insight, scholars later showed that the media often functions as a stimulus and can affect the basis from which people evaluate political figures (Iyengar and Kinder, 1987; Iyengar et al., 1984; Iyengar and Simon, 1993; Krosnick and Brannon, 1993; Krosnick and Kinder, 1990).

A few studies have examined this phenomenon in the judicial context. Greene (1990), in her review, qualified the existing research on the effect of irrelevant information on juror's decisions as "rudimentary and speculative." In two mock trial studies, she shows that

jurors are influenced by "unrelated pretrial publicity," showing, for example, that jurors are harsher after hearing about unrelated news of a heinous crime (Greene and Wade, 1988). Greene and Loftus (1984) also show that jurors discounted the testimony of an eyewitness after being exposed to a news story about a case in which an eyewitness made a wrong testimony. Philippe and Ouss (2018) are the first, and only, to tackle the question of the short-term impact of outside events on judicial decision-making using real world data. They examine the effect of news stories about crime on prime-time television on sentence lengths in France. They find that one additional story about crime increases sentence length by almost a month among jurors but has no effect on the decisions of judges in corrections and appellate courts. While Philippe and Ouss (2018) interpret this as suggestive evidence that professionalism mitigates the effect of extraneous events on decisions, recent studies on the effect of terrorist attacks on judges in the U.S. suggest otherwise (McConnell and Rasul, 2020; Shayo and Zussman, 2011). Brodeur and Wright (2019), for instance, find that asylum seekers from Muslim majority countries whose cases were heard in the U.S. in the weeks or months following the September 11 attacks in the U.S. and the 2004 attacks in Madrid, Spain are less likely to be granted refugee status. In this study, I examine the short-term effect of two different types of extraneous events, migrant shipwrecks and terrorist attacks, on expert decision-makers and leverage micro-level data on asylum officer's experience to test whether experience does in fact mitigate the effect of irrelevant but domain-related events on decision-making.

3 Theory

To understand the ways in which events like migrant shipwrecks and terrorist attacks can affect asylum decisions, I start by laying out a simple model of decision-making for granting or deying refugee status. Put simply, asylum officers seek to avoid two potential and costly decision-making errors: denying refugee status to an applicant who is persecuted and grant-

ing refugee status to an applicant who is not persecuted. Denying a legitimate claim has negative consequences for persecuted asylum seekers who would be forced to return to their country, a cost that bureaucrats may internalize. Let $-y_b$ by the negative payoff for bureaucrat b for denying a legitimate claim. Granting an illegitimate claim can also have negative consequences if the applicant has ill-intent. Let $-x_b$ be the negative payoff for granting an illegitimate claim, with probability θ_a representing the probability that the applicant is a terrorist. Assuming that asylum officers receive a positive payoff from making the correct decision (z_b), he compares the value of granting refugee status (V_g) to the value of denying refugee status (V_d) when making his decision. Let ω_a denote the probability that the asylum seeker is persecuted and c_i represent the disutility that an asylum officer incurs from granting refugee status to an applicant from group i.

$$\begin{aligned} V_g &= \omega_a(z_b - c_i) + (1 - \omega_a)\theta_a(-x_b) \\ V_d &= (1 - \omega_a)z_b + \omega_a(-y_b) \end{aligned}$$

This simple model of decision-making under uncertainty allows me to distinguish three different mechanisms through which events like terrorist attacks and migrant shipwrecks can affect asylum decisions. First, these events can affect asylum decisions through the behavioral effects of the activation of the asylum officer's social identity. We know that judges and decision-makers can be influenced by different aspects of their identity, like their gender (Boyd et al., 2010), their race (Anwar et al., 2012) and their ideology (Cohen and Yang, 2019). Yet, the extent to which people identify with different facets of their identity depends on their social environment (Shayo, 2009). Shayo and Zussman (2011) show, for instance, that judicial ingroup bias in Israel increases with the intensity of terrorist attacks in the vicinity of the court in the year preceding the jury's decision. In a recent study, McConnell and Rasul (2020) argue that in multigroup societies, like the U.S., terrorist attacks may not only impact the group directly associated with the attacks but also other outgroups by showing that sentencing outcomes in the U.S. criminal justice system worsened for Hispanic

individuals after 9/11. Focusing on a different type of event, Berdejó and Chen (2017) show that judges on the U.S. court of appeals are more likely to vote along partisan lines when ideology is most salient, i.e. in the months leading up to a presidential election. Taken together, this evidence suggests that extraneous events can affect asylum decisions by making different aspects of asylum officers' identities salient, thereby changing the value of the disutility c_i that bureaucrats incur from granting refugee status to applicants from group i. Though other types of terrorist attacks outnumbered jihadist attacks in 2015, jihadist attacks still quadrupled in France in 2015 compared to 2014 and caused all 148 deaths from terrorist attacks recorded that year.[15] By making religion a more visible issue, terrorist attacks could increase bureaucrats' disutility to grant refugee status to Muslim applicants. However, following this logic, migrant shipwrecks should not have an effect on asylum decisions since they do not make a specific aspect of an individual's identity — such as relition — more visible.

Second, these events could affect asylum decisions by directly impacting asylum officers' prior assumptions about the applicant. As outlined above, asylum decisions depend on the decision-maker's assessment of the probability that the applicant is persecuted (ω_a) and the probability that she is a terrorist (θ_a). Tversky and Kahneman (1973) established early on that people tend to evaluate the frequency of a class with "the ease with which relevant instances come to mind", and that this "availability" heuristic can lead to "biases due to the retrievability of instances" (p. 1127). In other words, familiarity, salience and recency are factors that increase the availability of instances and potentially bias an individual's assessment of frequencies and probabilities. Moreover, evidence from survey experiments reveal that even experienced judges can be subject to a range of cognitive biases, including anchoring and framing (Guthrie et al., 2001, 2007, 2009). Chen et al. (2016) complement this finding by using real-world data to show that experienced decision-makers in three unrelated domains (U.S. judges in refugee asylum cases, loan officers and Major League

[15]European Union Terrorism Situation and Trend Report (TE-SAT) 2019

Baseball umpires) are subject to the gambler's fallacy. Overall, this evidence suggests that asylum officers are not exempt from cognitive biases. As a result, asylum officers might be more likely to think that an applicant is a terrorist if she is interviewed after, rather than before, a terrorist attack, because the asylum officer is faster at retrieving an instance of a terrorist attack when the event is still fresh in his memory. For the same reasons, asylum officers might be more likely to think that an asylum seeker is persecuted when she is interviewed after, rather than before, a shipwreck. However, whether these events will, in fact, affect the decision depends on the extent to which bureaucrats update their priors when interviewing the applicant. Thus, in this scenario, I would expect that experienced bureaucrats are less subject to decision-making bias following these events since they are more likely than inexperienced bureaucrats to update their priors with the evidence at hand. As a result, if events affect decisions by changing bureaucrat's priors, I anticipate that the effect of migrant shipwrecks and terrorist attacks will be mitigated by asylum officers' experience.

Finally, these events could affect decision-making by affecting the payoffs associated with incorrect decisions, $-x_b$ for a false positive and $-y_b$ for a false negative. Research from psychology has shown that the vividness with which outcomes are represented has an impact on people's emotional reactions, a finding used to explain customer's behaviors in purchasing insurance (for a review, see Loewenstein et al. (2001)). In the context of this study, terrorist attacks and migrants shipwrecks could affect decisions by increasing the perception of loss associated with denying a legitimate claim (in the case of migrant shipwrecks) and with granting an illegitimate claim (in the case of attacks). As a result, asylum officers might be more conservative when interviewing applicants after a terrorist attack, rather than before, to avoid the perceived cost associated with the risk of letting in a potential terrorist, and less conservative after a migrant shipwreck to avoid the risk of forcing an asylum seeker to return to her country of origin.

The simple model of decision-making laid out at the start of this section reveals three different mechanisms through which events like migrant shipwrecks and terrorist attacks

can affect asylum decisions: (a) by increasing the disutility associated with granting refugee status to a certain group of applicants, (b) by changing the bureaucrat's priors about the applicant, and (c) sby changing the cost associated with incorrect decisions. Three features of this study allow me to arbitrate between these different mechanisms. First, while terrorist attacks have the potential to make religion more salient in asylum officer's minds, migrant shipwrecks do not similarly bring specific aspects of individual's identity to the forefront. Thus, using data on these two types of events allows me to test whether these events affect decisions through the activation of the asylum officer's social identity. Second, using data on the country of origin of applicants, I can test whether the effects of terrorist attacks are concentrated among applicants from Muslim-majority countries, as the first mechanism implies, or among applicants from associated countries, as the other two mechanisms suggest. Finally, using detailed data on the level of experience of bureaucrats, I can test whether experience mitigates the effect of these events, allowing me to distinguish between the second and third mechanisms.

4 Research Design

For this study, I combine non-publicly available administrative data from the French asylum office with data on migrant shipwrecks in the Mediterranean from the Missing Migrant project and data on terrorist attacks in France from the Global Terrorism Database. In September 2017, the French asylum office shared anonymous administrative data on 28,163 asylum applications filed between January 1, 2015 and December 31, 2015. This represents a random sample of 47 percent of the 59,335 applications filed at the French asylum office in that year. These administrative data record basic demographic characteristics (country of origin, age, gender and marital status), whether the applicant was interviewed, the date of the interview and the decision after the first examination. In addition, the French asylum office allowed me to retain the anonymous identifiers of the asylum officers who decided each

case. I restrict the original sample to the 22,543 applicants who were interviewed in 2015 or 2016 and were notified of their decision before I accessed the data in September 2017. I further exclude those granted protection on the basis of family reunification since that confers automatic refugee status. In my restricted sample, 23 percent of applicants were granted refugee status upon first examination.

I combine these records with three additional data sources. The Global Terrorism Database is an open-source database of domestic and international terrorist events around the world from 1970 until today. This database contains detailed information on a wide range of topics, including the location of the attack, the attack's success and the type of weapon used, as well as information about the target, the perpetrator, and casualties. I restrict the dataset to the 63 terrorist attacks, successful or not, perpetrated in France in 2015 and 2016. These attacks took place on 43 different days. A third of the 63 attacks were perpetrated by the Islamic State of Iraq and Syria (ISIS). The identity of the terrorist organization involved is unknown for half of the attacks. Importantly, no recognized refugee was accused or convicted of conducting any of these attacks.

The International Organization for Migration's (IOM) Missing Migrant Project has collected data on migrant deaths around the world since October 2013. This database records every incident of "migrants who have died at the external borders of states, or in the process of migration towards an international destination, regardless of their legal status." The data is not restricted to shipwrecks, and includes all migrants who have died or gone missing via "transportation accidents, shipwrecks, violent attacks or due to medical complications during their journeys." For each incident, the database provides information about the location of the event, the date at which the incident took place, the number of migrants who died or who have gone missing, and the probable cause of death. I restrict the dataset to events that took place in the Mediterranean in 2015 and 2016 and for which the reported cause of death or disappearance is drowning. This results in 207 recorded incidents, 109 in 2015, and 98 in 2016 in which at least one migrant died or was presumed missing from

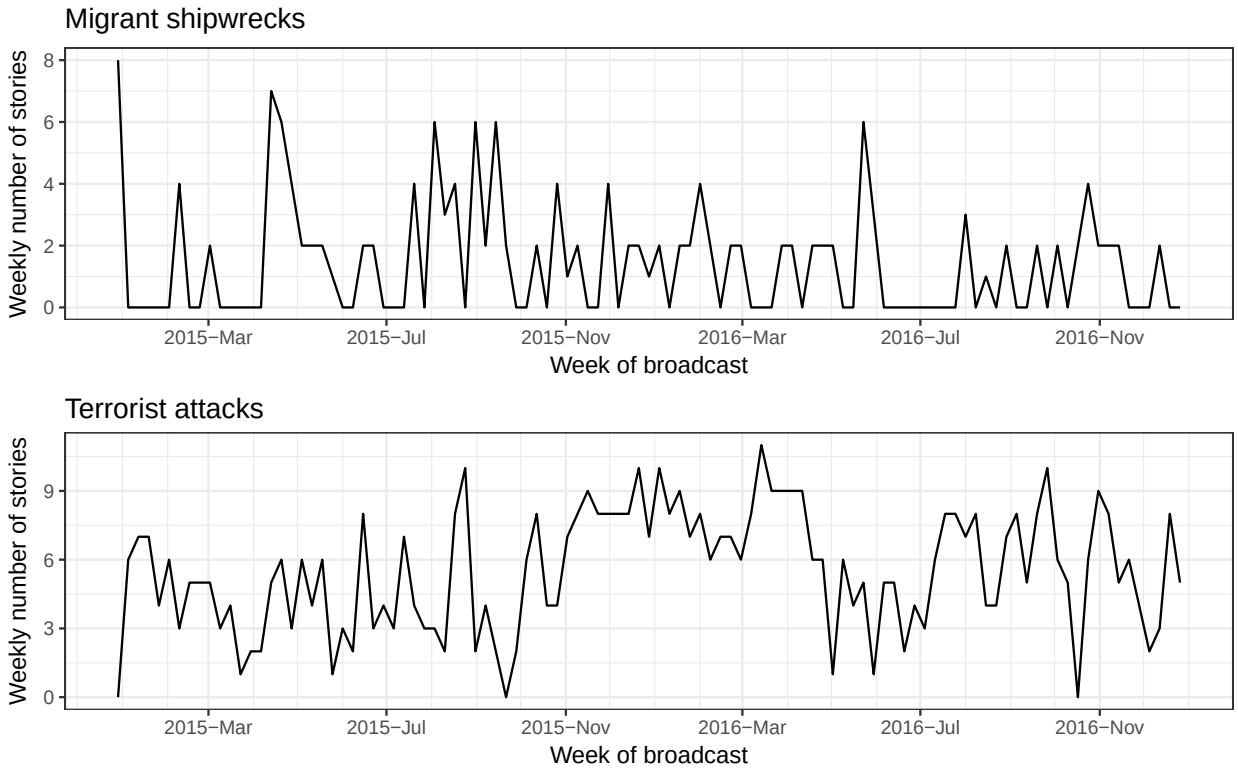
drowning. The number of such incidents doubled in 2015 and 2016 compared to 2014, when only 40 incidents were reported. In 2015 and 2016, 39 migrants on average were reported dead in these incidents, but the distribution of the number of migrants dead or missing is highly skewed to the right since half of these incidents recorded nine drownings or fewer. The highest death toll was recorded on April 18, 2015 when a fishing boat carrying more than 700 migrants sunk in the Mediterranean.

To check that these events are common knowledge among bureaucrats, I downloaded the synopses of the daily prime-time news broadcasts between January 2015 and December 2016 for France's two main free television channels, TF1 and France 2, from the website of the National Audiovisual Institute (INA). Together these two channels drew about 40 percent of viewers in 2010 (Philippe and Ouss, 2018). Daily prime-time news starts at 8pm, lasts about 35 minutes, and covers on average 26 stories. Each story is described with a title (about 8 words) and a short content overview (about 27 words). I coded a news broadcast as featuring a news story about a migrant shipwreck by searching for the keywords "migrants" and "refugees" in confunction with the keywords "shipwreck", "rescue", "drowning", "Mediterranean" and "survivors." I coded a story as featuring a terrorist attack if they mentioned the word "terrorist" or the word "attack." These stories include features on new attacks, but also encompass stories about the aftermath of terrorist attacks, as well as failed terrorist attacks.

These data allow me to confirm that migrant shipwrecks and terrorist attacks were heavily talked about in 2015 through the end of 2016. The top and bottom panel of Figure 1 depict the weekly number of stories on either television channel featuring migrants' unfortunate crossing of the Mediterranean by boat and terrorist attacks respectively. In total in 2015 and 2016, stories about migrant shipwrecks were featured on 81 days, or one every other week, while terrorist attacks were featured on 440 days, or about every other day. 72 percent of the 64 terrorist attacks were featured on prime time on at least one channel. Terrorist attacks featured in the news on average resulted in 37 deaths or injuries, compared to only

3 deaths or injuries for those terrorist attacks not featured in the news. However, this is entirely driven by two attacks, the attack on the Bataclan on November 13, 2015 and the Nice attacks on July 14, 2016. When I exclude these two terrorist attacks, the diference in the number of killed or wounded between attacks features on prime time and those not featured disappears.

Figure 1: Weekly number of news stories about migrant shipwrecks or terrorist attacks (2015-2016)



Note: This figure displays the weekly number of news stories about migrant shipwrecks and terrorist attacks on prime-time news on one of the two main channels available for free in France, TF1 and France 2. I coded a news broadcast as featuring a news story about a migrant shipwreck by searching for the keywords "migrants" and "refugees" in conjunction with the keywords "shipwreck", "rescue", "drowning", "Mediterranean" and "survivors." I coded a story as featuring a terrorist attack if they mentioned the word "terrorist" or the word "attack." These stories include features about new attacks, but also encompass stories about the aftermath of terrorist attacks, as well as failed terrorist attacks. Source: National Audiovisual Institute (INA)

Only 16 percent of the incidents recorded by the Missing Migrant Project in which at least one person drowned were covered in the news. This proportion increases to 30 percent

when considering shipwrecks in which 30 migrants died and to 45 percent of shipwrecks in which at least 90 migrants died (Figure A.1). To ensure that the events I study are common knowledge among bureaucrats, I restrict the analysis to shipwrecks in which 30 or more drowned, but I show in the appendix that the effect of shipwrecks on asylum decisions is stronger when considering shipwrecks with more casualties.

The high frequency of the administrative data allows me to analyze short-term effects. To estimate the causal effect of migrant shipwrecks and terrorist attacks on asylum decisions, I leverage exogenous variation in the timing of these events with respect to the day of the interview of asylum seekers. The day of the interview is set weeks in advance in order to give applicants sufficient time to make arrangements to come to the centralized French asylum office located near Paris. As a result, since the timing of the interview is controlled neither by the asylum seeker nor by the bureaucrat, applicants interviewed after the event should be no different from applicants interviewed before. To confirm this, I compare the observable characteristics of asylum seekers interviewed the day after a migrant shipwreck in Table A.1 and after a terrorist attack in Table A.2 to those interviewed on any other day. Overall, out of 32 characteristics, only 5 applicants characteristics following a shipwreck and 6 characteristics following a terrorist attack reach the significance level of 95 percent. In practice, I estimate the following regressions:

$$y_{i,t} = \tau \text{Shipwreck}_{t-1} + X_i^{'}\beta + \epsilon_i \text{ if Shipwreck}_t = 0$$

and

$$y_{i,t} = \tau \text{Attack}_{t-1} + X_i^{'}\beta + \epsilon_i \text{ if Attack}_t = 0$$

where $y_{i,t} = 1$ if applicant i interviewed on day t was granted asylum and 0 otherwise. $\text{Shipwreck}_{t-1} = 1$ and $\text{Attack}_{t-1} = 1$ if there was a migrant shipwreck or a terrorist attack on day $t-1$, respectively. Finally, $X_i^{'}$ is a vector of applicant and interview characteristics (country of origin, age, gender, marital situation, week of application, day of the week of

the interview and bureaucrat identifier). τ is the effect of being interviewed the day after a shipwreck or a terrorist attack. It is estimated by the difference in the probability of being granted refugee status between those interviewed the day after one of these events and those interviewed on any other day, controlling for observable characteristics. In the appendix, I show that results are robust to restricting the comparison group to asylum seekers interviewed between one and five days before the event. Following Philippe and Ouss (2018), I exclude asylum seekers interviewed on the day of one of these events from the analysis because the timing of the event (e.g. morning, afternoon or evening) determines whether applicants on that day are in the treatment or in the control group.

5 Results

Of the 22,543 asylum seekers in the sample, 1,772, or 8 percent, were interviewed the day after a shipwreck in the Mediterranean in which 30 or more people drowned. To estimate the effect of migrant shipwrecks on asylum decisions, I compare applicants interviewed the day after a shipwreck to those interviewed on any other day, excluding those interviewed on the day of the shipwreck. Comparing grant rates among these two groups of applicants and clustering standard errors at the level of the bureaucrats, I find that shipwrecks increase the probability of asylum seekers gaining refugee status by 3.4 percentage points (Table 1, Column 1).

Since neither bureaucrats nor asylum seekers set the date of the interview, I can rule out that this effect is driven by bureaucrats deciding to interview more deserving applicants the day after a shipwreck. To be sure, I show in Column 2 that this effect is robust to controlling for applicants' observable characteristics (country of origin and the week of application, as well as standard demographic characteristics of the applicant such as age, gender and marital status). Even though how asylum officers are assigned specific cases is not observed and certainly not random, the fact that cases are assigned to bureaucrats well in advance of the

Table 1: Effect of migrant shipwrecks on asylum decisions

	1(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Shipwreck *t-1*	0.034*	0.024*	0.023*	0.024*
	(0.01)	(0.01)	(0.01)	(0.01)
Observations	20,653	20,653	20,653	20,653
Nb of treated units	1,630	1,630	1,630	1,630
Applicant characteristics	N	Y	Y	Y
Bureaucrat fixed effects	N	N	Y	Y
Day of the week	N	N	N	Y
R^2	0.000	0.348	0.391	0.391

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Asylum seekers interviewed on the day of a shipwreck are excluded from the analysis. See text for control variable details.

interview, and thus well in advance of the events in question, alleviates concerns that this effect results from a non-random assignment of cases to bureaucrats. Results in Column 3 confirm this since the effect is robust to controlling for asylum officer fixed effects. Finally, I control for the day of the week in the last specification to ensure that the effect is not driven by the fact that events are more likely to happen at the time of the week when asylum officer are also more lenient. Controlling for these observable characteristics, asylum seekers interviewed the day after a shipwreck are 2.4 percentage points more likely to be granted refugee status. This effect is substantial and represents a 11 percent difference compared to the average acceptance rate in 2015 of 23 percent.

I check the robustness of this result in four different ways. First, in Table B.1, I show that this result is robust to restricting the comparison group to asylum seekers interviewed in the week leading up to a shipwreck, excluding those applicants interviewed on the day of the shipwreck. The sample size is divided by three but the magnitude and the statistical significance of the coefficients are unchanged, with the exception of the third specification. Second, I report in Table B.2 the result of a falsification test, in which I check that migrant shipwrecks at time t have no effect on asylum seekers interviewed the day before the event,

$t-1$. As expected, I find no difference between those interviewed the day before a shipwreck and those interviewed on any other day, again excluding those interviewed on the day of. Third, I show in Table B.3 that results are robust to excluding from the sample asylum seekers interviewed in the six days surrounding the top three major shipwrecks which happened on April 18, 2015 (resulting in 750 deaths), April 9, 2016 (468 deaths) and May 26, 2016 (559 deaths). Finally, in Table B.4, I show that results are robust to clustering the standard errors both at the level of the bureaucrats and the date of the interview.

Moreover, this effect is stronger for deadlier shipwrecks. In Table B.5, I re-estimate the effect using increasingly larger cutoffs to define migrant shipwrecks (I use 30 deaths as the default). In Columns 1 to 7, I increase the threshold from 0 to 90 migrants drowned. This reduces the number of shipwrecks that took place during the period: While there were 50 events in which 30 or more migrants were reported drowned, 35 had 50 or more, 27 had 70 or more and 24 had 90 or more. Those interviewed after a shipwreck in which more than 90 migrants died or disappeared are 5.4 percentage points more likely to be granted refugee status compared to those interviewed on any other day, excluding those interviewed on the day of the shipwreck. This could be because bureaucrats are more likely to know about deadlier shipwrecks (Figure A.1). However, the pattern remains, even when considering only shipwrecks that were featured in the news (Table B.6). This suggests that there an effect, independent of media coverage, or the number of casualties on asylum decisions. Considering only shipwrecks featured on prime time, those interviewed the day after a shipwreck in which more than 90 migrants died are 8.7 percentage points more likely to be granted refugee status, a 38 percent increase, compared to the average acceptance rate of 23 percent.

While bureaucrats are more generous with asylum seekers they interview the day after they learn about a shipwreck, terrorist attacks have no impact on asylum decisions overall. In Table C.1, I report estimates of the effect of terrorist attacks. 1,299 or 5.7 percent of asylum seekers in the sample were interviewed the day after a terrorist attack in France. These applicants were 2 percentage points less likely to be granted refugee status compared

to those interviewed on any other day, again excluding those interviewed on the day of the attack. However, this effect is not significantly different from zero. I find similar results when restricting the analysis to terrorist attacks claimed by ISIS (Table C.2). One thing to note, however, is that the estimates reported here de facto exclude the largest terrorist attack during the two years of my sample: The November 13, 2015 attacks happened on a Friday, meaning no asylum seekers were interviewed the following day.

Table 2: Effect of terrorist attacks on asylum decisions by subgroup

	1(Granted refugee Status)					
	(1)	(2)	(3)	(4)	(5)	(6)
	Syria and Iraq	All but Syria and Iraq	All countries	Muslim-majority countries	All but Muslim-majority countries	All countries
Attack *t-1*	-0.191**	-0.011	-0.011	-0.032*	-0.010	0.003
	(0.06)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
From Syria or Iraq			0.066*			
			(0.03)			
Attack *t-1* × From Syria or Iraq			-0.170*			
			(0.07)			
Attack *t-1* × From a Muslim Majority country						-0.037
						(0.02)
Observations	1,270	19,654	20,909	12,944	7,574	20,518
Nb of treated units	275	1,109	1,179	684	481	1,179
Applicant characteristics	Y	Y	Y	Y	Y	Y
Bureaucrat fixed effects	Y	Y	Y	Y	Y	Y
Day of the week	Y	Y	Y	Y	Y	Y
R^2	0.170	0.328	0.390	0.433	0.347	0.390

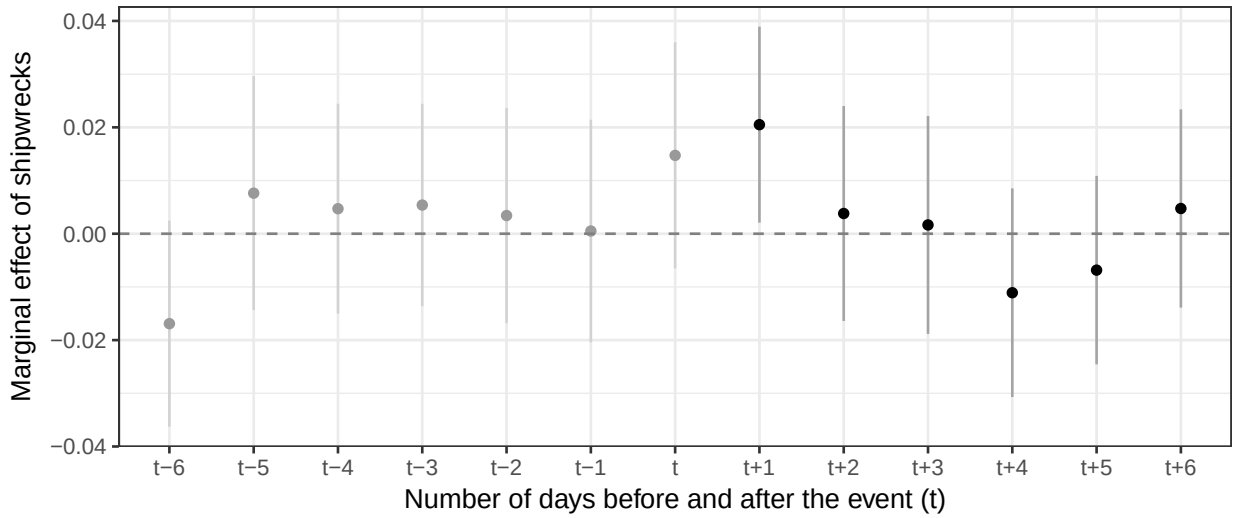
Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Asylum seekers interviewed on the day of a terrorist attack are excluded. See text for control variable details.

However, this null effect hides substantial heterogeneity. As outlined in Section 3, if terrorist attacks affect asylum officers' decisions by activating their social identity and making religion more salient, we would expect the effect to be concentrated among Muslim applicants. However, if terrorist attacks have an effect on asylum decisions by changing bureaucrats' prior assumption that the applicant is a potential terrorist (increasing θ_a) or by changing bureaucrats' subjective costs (increasing x), then the effect is more likely to be

concentrated among applicants from countries most associated with jihadist attacks, namely Syria and Iraq, the strongholds of the Islamic State in 2015. In Table 2 Columns 1 to 3, I compare the effect of terrorist attacks among Syrians and Iraqis to the effect of terrorist attacks among all other applicants. This analysis reveals a large effect of terrorist attacks on the success of Syrian and Iraqi asylum seekers' applications. Syrians and Iraqis interviewed the day after an attack are 19 percentage points less likely to be granted refugee status, a 23 percent decrease compared to the average acceptance rate of 81 percent for Iraqis and Syrians in the sample. In Columns 4 to 6, I compare the effect of terrorist attacks among applicants from a Muslim-majority country to the effect of terrorist attacks among all other applicants. To classify countries as Muslim-majority or non-Muslim-majority, I use data from the Association of Religion Data Archives's World Religion dataset. This dataset provides estimates of the percentage of the population that identifies with Christianity or Islam for most countries in the world from 1945 to today. I classify a country as Muslim-majority if more than half of the population identifies as Muslim according to the World Religion dataset. This analysis reveals a negative and significant effect of terrorist attacks on application decisions for applicants from Muslim-majority countries. However, the effect is not statistically different from the effect on other applicants. In the appendix, I show that the effect on Syrian and Iraqi applicants is robust to restricting the comparison group to asylum seekers interviewed in the week leading to an attack, though the coefficient is no longer statistically significant after I control for bureaucrat fixed effects due to the small number of observations (Table C.3), complete a falsification check (Table C.4) and exclude the three deadliest attacks (Table C.5).

For both events, the effect are relatively short lived, lasting only a day. I plot the marginal effect of migrant shipwrecks (Figure 2) and terrorist attacks for Syrians and Iraqis only (Figure 3) on asylum seekers interviewed six days before to six days after the event. To estimate these, I include six lag and six lead indicator variables of the event variable, control for all observable characteristics and cluster standard errors for the bureaucrat who decided

Figure 2: Duration of the effect of migrant shipwrecks on asylum decisions

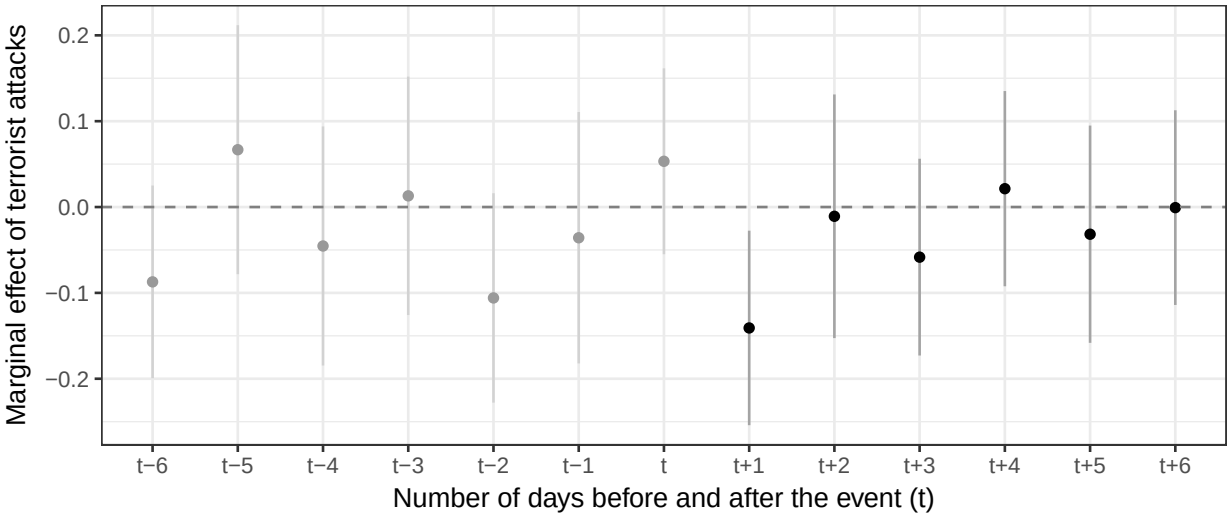


Note: This figure displays the coefficients and 95 percent confidence intervals of six lag and six lead indicator variables included in a OLS regression, controlling for all observable characteristics. The dependent variable is whether the applicant was granted refugee status. t represent the day of the event.

the case. Whether I consider migrant shipwrecks or terrorist attacks, I find that they affect only asylum seekers interviewed the day after the event, with those interviewed two days after the event no more or less likely to be granted refugee status. This pattern is consistent with Philippe and Ouss (2018)'s finding that the effect of news stories about crime on jurors' decisions lasts only a day.

Taken together, these results — bureaucrats are more generous in their decision-making they day following a migrant shipwreck and less generous with applicants from Syria and Iraq following a terrorist attack — are consistent with the two different mechanisms. These events could influence decisions either by changing asylum officers' priors about the applicants or by changing the cost to asylum officers of making an incorrect decision. To further distinguish between these two mechanisms, I next explore the role of bureaucrats' experience in mitigating these effects. If driven by priors, bureaucrats who are inexperienced would be more susceptible to these events. Instead, I show in Table 3 that, for both types of events, the effect is not concentrated among inexperienced bureaucrats, here defined as those who have

Figure 3: Duration of the effect of terrorist attacks on asylum decisions among Syrians and Iraqis



Note: This figure displays the coefficients and 95 percent confidence intervals of six lag and six lead indicator variables included in a single OLS regression, controlling for all observable characteristics. The dependent variable is whether the applicant was granted refugee status. t represent the day of the event.

made fewer than 280 application decisions, which is the median number of past decisions among bureaucrats in the sample, and corresponds to about two years on the job. In the case of shipwrecks, the effect is even stronger among experienced bureaucrats, though the difference in the effect among inexperienced bureaucrats is not significant.

Overall, I find robust evidence that events like migrant shipwrecks and terrorist attacks have a short-term, one-day effect on decision-making. I find that the patterns revealed by the data are more consistent with a mechanism in which events affect decisions because they change the decision payoffs to asylum officers.

6 Conclusion

The refugee crisis that started in 2015 coincided with renewed terrorist activity in Europe. With this as a backdrop, host countries face the unique challenge of protecting the lives of refugees fleeing persecution, while, at the same time, keeping the continent safe from

Table 3: Effect of migrant shipwrecks and terrorist attacks: Heterogeneity by bureaucrats' level of experience

	Migrant Shipwrecks			Terrorist Attacks (Syrian and Iraqi Applicants Only)		
	(1) $<$ 50th percentile	(2) $>$ 50th percentile	(3) All	(4) $<$ 50th percentile	(5) $>$ 50th percentile	(6) All
Event *t-1*	0.015	0.030*	0.019	-0.222	-0.220**	-0.239
	(0.01)	(0.01)	(0.01)	(0.13)	(0.08)	(0.13)
More than 280			0.390***			-1.073*
			(0.10)			(0.44)
Event *t-1* $\times$ More than 280			0.012			0.015
			(0.02)			(0.15)
Observations	9,672	9,633	19,305	351	817	1,168
Nb of treated units	741	750	1,630	18	18	70
Applicant characteristics	Y	Y	Y	Y	Y	Y
Bureaucrat fixed effects	Y	Y	Y	Y	Y	Y
Day of the week	Y	Y	Y	Y	Y	Y
R^2	0.386	0.409	0.394	0.343	0.203	0.199

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Event t-1 is an indicator variable for whether there was a migrant shipwreck (a terrorist attack) the day before the interview in columns 1 to 3 (columns 4 to 6). Asylum seekers interviewed on the day of the event are excluded. See text for control variable details.

potential terrorist activities. During the first two years of the refugee crisis, two types of events, often reported by the media, unambiguously reminded citizens and asylum officers of this dual objective. News of migrant shipwrecks in the Mediterranean underlined the risk that asylum seekers take to cross over to Europe, while terrorist attacks underscored the potential cost of letting in a terrorist.

Did these events affect asylum officers' decisions to grant or deny refugee status to applicant? To answer this question, I combine administrative data on asylum applications filed in 2015 at the French asylum office with data on migrant shipwrecks in the Mediterranean and terrorist attacks in France. I find that bureaucrats were more generous after a shipwreck and less generous after a terrorist attack. However, this second effect only impacted asylum seekers from Syria and Iraq, the headquarters of ISIS, which claimed a third of all terrorist

attacks perpetrated in France in 2015 and 2016. Migrant shipwrecks increase the chance of getting refugee status by between 2 and 9 percentage points depending on the number of casualties and whether the event was featured on prime-time news broadcasts. Compared to the average grant rate of 23 percent in the sample, these effects are sizable. Syrians and Iraqis interviewed after an attack were 21 percentage points less likely to be granted refugee status, compared to the average grant rate of 81 percent for this group. These effects are substantial, but they are short-lived since they last, in both cases, only a day. Moreover, the length of experience of the asylum officer on the case does not seem to mitigate the effect of these events on asylum decisions.

This study adds to a set of recent research investigating the effect of unrelated events on decision-making by judges and bureaucrats. While we now have evidence that a wide range of events can affect decision-making, we need more research to understand the precise mechanisms through which unrelated events affect decisions in order for policymakers and others to be able to design solutions. This study takes a step in that direction by providing a simple model of decision-making that suggests that shipwrecks and terrorist attacks affect asylum decisions by providing vivid representations of the outcomes associated with incorrect decisions, thereby momentarily increasing the cost of a decision-making mistake.

References

Anwar, Shamena , Patrick Bayer, and Randi Hjalmarsson (2012). The impact of jury race in criminal trials. *Quarterly Journal of Economics 127*(2), 1017–1055.

Avdan, Nazli (2014). Do asylum recognition rates in Europe respond to transnational terrorism? The migration-security nexus revisited. *European Union Politics 15*(4), 445–471.

Bargh, John A. and Paula Pietromonaco (1982). Automatic information processing and social perception: The influence of trait information presented outside of conscious awareness on impression formation. *Journal of Personality and Social Psychology 43*(3), 437–449.

Berdejó, Carlos and Daniel L. Chen (2017). Electoral cycles among US courts of appeals judges. *Journal of Law and Economics 60*(3), 479–496.

Böhmelt, Tobias , Vincenzo Bove, and Enzo Nussio (2019). Can Terrorism Abroad Influence Migration Attitudes at Home? *American Journal of Political Science 00*(0), 1–15.

Boyd, Christina L , Lee Epstein, and Andrew D Martin (2010). Untangling the Causal Effects of Sex on Judging at Buffalo , in. *American Journal of Political Science 54*(2), 389–411.

Brodeur, Abel and Taylor Wright (2019). Terrorism, immigration and asylum approval. *Journal of Economic Behavior and Organization 168*, 119–131.

Chen, Daniel L. and Markus Loecher (2016). Mood and the Malleability of Moral Reasoning.

Chen, Daniel L. , Tobias J Moskowitz, and Kelly Shue (2016). Decision making under the gambler's fallacy: evidence from asylum judges, loan officers, and baseball umpires. *The Quarterly Journal of Economics*, 1181–1242.

Cohen, Alma and Crystal S. Yang (2019). Judicial politics and sentencing decisions. *American Economic Journal: Economic Policy 11*(1), 160–191.

Danziger, Shai , Jonathan Levav, and Liora Avnaim-pesso (2011). Extraneous factors in judicial decisions. *Proceedings of the National Academy of Sciences 108*(17), 6889–6892.

Eren, Ozkan and Naci Mocan (2018). Emotional Judges and Unlucky Juveniles. *American Economic Journal: Applied Economics 10*(3), 171–205.

Evans, Sally and Peter Siminski (2020). The Effect of Outside Temperature on Criminal Court Sentencing Decisions.

Glover, Dylan (2018). Job Search and Intermediation under Discrimination : Evidence from Terrorist Attacks in France.

Greene, Edith (1990). Media Effects on Jurors. *Law and Human Behavior 14*(5), 439–450.

Greene, Edith and Elizabeth F. Loftus (1984). What's New in the News? The Influence of Well-Publicized News Events on Psychological Research and Courtroom Trials. *Basic and Applied Social Psychology 5*(3), 211–221.

Greene, Edith and Russell Wade (1988). Of private talk and public print: General pre-trial publicity and juror decision-making. *Applied Cognitive Psychology 2*(2), 123–135.

Guthrie, Chris , Jeffrey J. Rachlinski, and Andrew J. Wistrich (2001). Inside the judicial mind. *Cornell Law Review 86*(4), 777–778.

Guthrie, Chris , Jeffrey J. Rachlinski, and Andrew J. Wistrich (2007). Blinking on the bench: How judges decide cases. *Cornell Law Review 93*(1), 1–43.

Guthrie, Chris , Jeffrey J. Rachlinski, and Andrew J. Wistrich (2009). The "hidden judiciary": An empirical examination of executive branch justice. *Duke Law Journal 58*(7), 1477–1530.

Heyes, Anthony and Soodeh Saberian (2019). Temperature and Decisions: Evidence from 207,000 Court Cases. *American Economic Journal: Applied Economics 11*(2), 238–65.

Holmes, Jennifer S. and Linda Camp Keith (2010). Does the fear of terrorists trump the fear of persecution in asylum outcomes in the post-September 11 era? *PS - Political Science and Politics 43*(3), 431–436.

Iyengar, Shanto and Donald R Kinder (1987). *News That Matters*.

Iyengar, Shanto , Donald R. Kinder, Mark D. Peters, and Jon A. Krosnick (1984). The evening news and presidential evaluations. *Journal of Personality and Social Psychology 46*(4), 778–787.

Iyengar, Shanto and Adam Simon (1993). News Coverage of the Gulf Crisis and Public Opin-

ion A study of Agenda-Setting, Priming, and Framing. *Communication Research 20*(3), 365–383.

Krosnick, Jon A. and Laura A. Brannon (1993). The Impact of the Gulf war on the Ingredients of Presidential Evaluations: Multidimensional Effects of Political Involvement. *The American Political Science Review1 87*(4), 963–975.

Krosnick, Jon A. and Donald R. Kinder (1990). Altering the Foundations of Support for the President Through Priming. *The American Political Science Review 84*(2), 497–512.

Loewenstein, George F. , Christopher K. Hsee, Elke U. Weber, and Ned Welch (2001). Risk as Feelings. *Psychological Bulletin 127*(2), 267–286.

McConnell, Brendon and Imran Rasul (2020). Contagious Animosity in the Field : Evidence from the Federal Criminal Justice System.

Mensah, Justice Tei (2018). Innocent until Stereotyped Guilty ? Terrorism and US Immigration Court Decisions.

Philippe, Arnaud and Aurélie Ouss (2018). "No Hatred or Malice, Fear or Affection": Media and Sentencing. *Journal of Political Economy 126*(5), 2134–2178.

Rottman, Andy J. , Christopher J. Fariss, and Steven C. Poe (2009). The path to asylum in the US and the determinants for who gets in and why. *International Migration Review 43*(1), 3–34.

Shayo, Moses (2009). A Model of Social Identity with an Application to Political Economy: Nation, Class, and Redistribution. *American Political Science Review 103*(02), 147–174.

Shayo, Moses and Asaf Zussman (2011). Judicial ingroup bias in the shadow of terrorism. *Quarterly Journal of Economics 126*(3), 1447–1484.

Srull, Thomas K and Robert S Wyer (1979). The role of category accessibility in the interpretation of information about persons. *Journal of Personality and Social Psychology 37*(10), 1660–1672.

Srull, Thomas K. and Robert S. Wyer (1980). Category accessibility and social perception: Some implications for the study of person memory and interpersonal judgments. *Journal*

of Personality and Social Psychology 38(6), 841–856.

Tory Higgins, E. , William S. Rholes, and Carl R. Jones (1977). Category accessibility and impression formation. *Journal of Experimental Social Psychology 13*(2), 141–154.

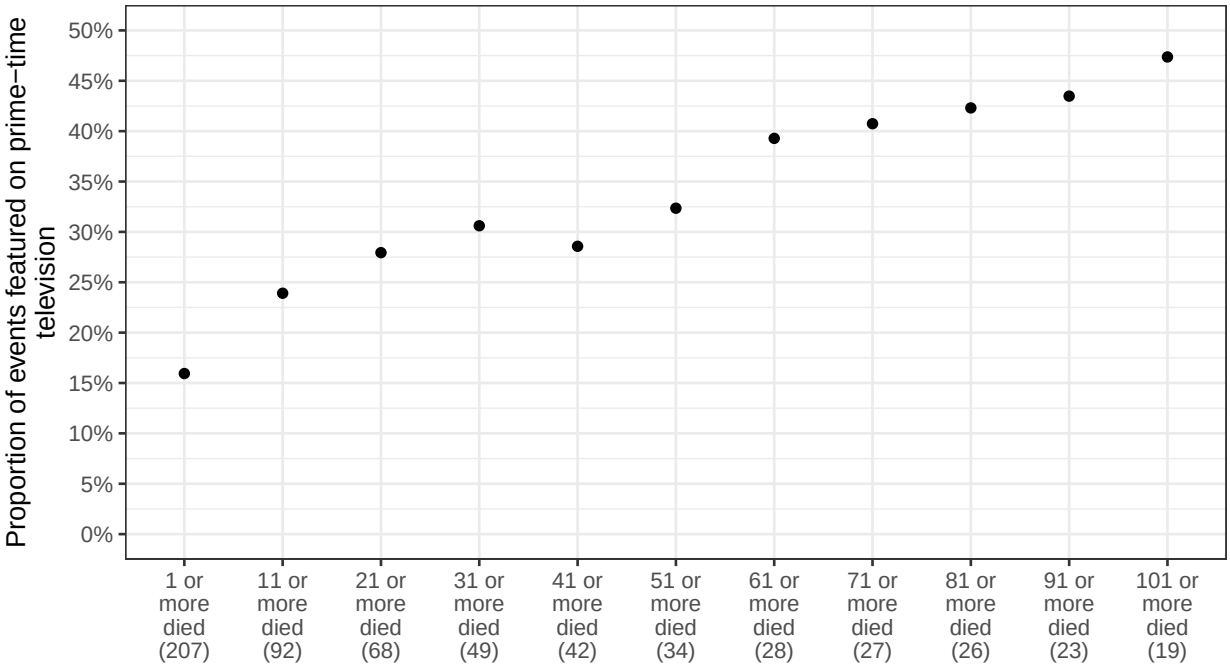
Tversky, Amos and Daniel Kahneman (1973). Availability: A Heuristic for Judging Frequency and Probability. *Cognitive Psychology 5*, 207–232.

Wagner, S and ID Petev (2019). The Economic Penalty of Terrorism: Increase in Discrimination Against Arabs and Muslims after Paris Attacks.

Online Appendices

A Descriptive statistics

Figure A.1: Proportion of migrant shipwrecks featured on prime-time news broadcasts



Note: This figure plots the proportion of shipwrecks featured on prime-time television on TF1 or France 2 on the day of the event as a function of the number of casualties recorded by the Missing Migrant Project for that event. The numbers in parenthesis indicate the number of events that meet the threshold.

Table A.1: Comparison of asylum seekers interviewed the day after a shipwreck to asylum seekers interview on any other day

	Interviewed before a shipwreck		Interviewed on any other day		t-test	
	Mean	N	Mean	N	Diff.	p
Female	0.31	1,772	0.32	20,771	-0.00	0.69
Age						
Less than 20	0.05	1,772	0.05	20,771	0.00	0.81
Between 20 and 30	0.47	1,772	0.47	20,771	-0.01	0.56
More than 30	0.48	1,772	0.47	20,771	0.01	0.64
Family Situation						
Single	0.49	1,772	0.48	20,771	0.01	0.48
Married	0.46	1,772	0.46	20,771	-0.01	0.66
Divorced	0.04	1,772	0.03	20,771	0.01	0.09
Widowed	0.02	1,772	0.02	20,771	-0.01	0.07
Missing	0.00	1,772	0.01	20,771	-0.00	0.06
Nationality						
Afghanistan	0.04	1,772	0.05	20,771	-0.01	0.15
Albania	0.03	1,772	0.04	20,771	-0.01	0.15
Algeria	0.03	1,772	0.03	20,771	0.00	0.33
Bangladesh	0.06	1,772	0.06	20,771	-0.00	0.43
DRC	0.06	1,772	0.06	20,771	-0.00	0.87
Guinea	0.03	1,772	0.03	20,771	0.00	0.68
Haiti	0.02	1,772	0.05	20,771	-0.04	0.00
Kosovo	0.05	1,772	0.06	20,771	-0.01	0.31
Mali	0.03	1,772	0.03	20,771	0.00	0.23
Other	0.39	1,772	0.38	20,771	0.01	0.47
Pakistan	0.05	1,772	0.03	20,771	0.01	0.00
Russia	0.04	1,772	0.03	20,771	0.01	0.02
Sudan	0.10	1,772	0.10	20,771	0.01	0.43
Syria	0.06	1,772	0.05	20,771	0.01	0.01
Asylum officer ID						
129	0.00	1,748	0.01	20,429	-0.00	0.06
135	0.01	1,748	0.01	20,429	0.00	0.57
225	0.01	1,748	0.01	20,429	-0.00	0.71
269	0.00	1,748	0.01	20,429	-0.00	0.20
480	0.01	1,748	0.01	20,429	0.00	0.05
766	0.01	1,748	0.01	20,429	-0.00	0.59
785	0.00	1,748	0.01	20,429	-0.00	0.04
786	0.01	1,748	0.01	20,429	-0.00	0.91
Other	0.95	1,748	0.95	20,429	0.01	0.15

Note: This table presents, for a selection of individual characteristics, the difference in means between asylum seekers interviewed the day after a shipwreck and asylum seekers interviewed on any other day.

Table A.2: Comparison of asylum seekers interviewed the day after an attack to asylum seekers interview on any other day

	Interviewed before an attack		Interviewed on any other day		t-test	
	Mean	N	Mean	N	Diff.	p
Female	0.30	1,299	0.32	21,244	-0.01	0.27
Age						
Less than 20	0.06	1,299	0.05	21,244	0.00	0.59
Between 20 and 30	0.50	1,299	0.47	21,244	0.03	0.08
More than 30	0.45	1,299	0.48	21,244	-0.03	0.04
Family Situation						
Single	0.52	1,299	0.48	21,244	0.04	0.00
Married	0.43	1,299	0.47	21,244	-0.03	0.02
Divorced	0.02	1,299	0.03	21,244	-0.01	0.19
Widowed	0.02	1,299	0.02	21,244	0.00	0.86
Missing	0.00	1,299	0.01	21,244	-0.00	0.14
Nationality						
Afghanistan	0.05	1,299	0.05	21,244	0.00	0.78
Albania	0.05	1,299	0.04	21,244	0.01	0.16
Algeria	0.03	1,299	0.03	21,244	-0.00	0.70
Bangladesh	0.04	1,299	0.06	21,244	-0.02	0.00
DRC	0.04	1,299	0.06	21,244	-0.02	0.00
Guinea	0.03	1,299	0.03	21,244	-0.00	0.95
Haiti	0.11	1,299	0.05	21,244	0.06	0.00
Kosovo	0.04	1,299	0.06	21,244	-0.01	0.03
Mali	0.03	1,299	0.03	21,244	0.00	0.59
Other	0.38	1,299	0.38	21,244	0.01	0.70
Pakistan	0.02	1,299	0.03	21,244	-0.01	0.02
Russia	0.02	1,299	0.03	21,244	-0.01	0.07
Sudan	0.10	1,299	0.10	21,244	0.00	0.99
Syria	0.05	1,299	0.05	21,244	0.00	0.81
Asylum officer ID						
129	0.01	1,283	0.01	20,894	0.00	0.75
135	0.01	1,283	0.01	20,894	0.00	0.08
225	0.00	1,283	0.01	20,894	-0.00	0.06
269	0.00	1,283	0.01	20,894	-0.00	0.13
480	0.00	1,283	0.01	20,894	-0.00	0.22
766	0.01	1,283	0.01	20,894	0.00	0.06
785	0.01	1,283	0.01	20,894	-0.00	0.37
786	0.01	1,283	0.01	20,894	-0.00	0.63
Other	0.95	1,283	0.95	20,894	0.00	0.47

Note: This table presents, for a selection of individual characteristics, the difference in means between asylum seekers interviewed the day after an attack and asylum seekers interviewed on any other day.

B Robustness of the effect of migrant shipwrecks

Table B.1: Effect of migrant shipwrecks on asylum decisions: Restricting the comparison group to asylum seekers interviewed in the week leading up to a shipwreck

	1(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Shipwreck *t-1*	0.040**	0.025*	0.022	0.026*
	(0.01)	(0.01)	(0.01)	(0.01)
Observations	8,766	8,766	8,766	8,766
Nb of treated units	1,630	1,630	1,630	1,630
Applicant characteristics	N	N	N	Y
Bureaucrat fixed effects	N	Y	Y	Y
Day of the week	N	N	Y	Y
R^2	0.001	0.351	0.403	0.404

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Shipwreck t-1 is an indicator variable for whether there was a shipwreck the day before the interview. The sample is restricted to asylum seekers interviewed during the week leading up to a shipwreck and those interviewed the day after. Asylum seekers interviewed on the day of a shipwreck are excluded. See text for control variable details.

Table B.2: Effect of migrant shipwrecks on asylum decisions: Falsification check

	1(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Shipwreck *t+1*	0.017	0.006	0.007	0.005
	(0.01)	(0.01)	(0.01)	(0.01)
Observations	20,653	20,653	20,653	20,653
Nb of treated units	1,432	1,432	1,432	1,432
Applicant characteristics	N	Y	Y	Y
Bureaucrat fixed effects	N	N	Y	Y
Day of the week	N	N	N	Y
R^2	0.000	0.348	0.391	0.391

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Shipwreck $t+1$ is an indicator variable for whether there was a shipwreck the day after the interview. Asylum seekers interviewed on the day of a terrorist attack are excluded. See text for control variable details.

Table B.3: Effect of migrant shipwrecks on asylum decisions: Excluding the three deadliest shipwrecks

	1(Granted refugee Status)			
	(1) Excluding April 18,2015	(2) Excluding April 9,2016	(3) Excluding May 26, 2016	(4) Excluding All Three
Shipwreck *t-1*	0.025*	0.025*	0.024*	0.026*
	(0.01)	(0.01)	(0.01)	(0.01)
Observations	20,596	20,574	20,427	20,291
Nb of treated units	1,595	1,594	1,630	1,559
Applicant characteristics	Y	Y	Y	Y
Bureaucrat fixed effects	Y	Y	Y	Y
Day of the week	Y	Y	Y	Y
R^2	0.391	0.393	0.392	0.394

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

Table B.4: Effect of migrant shipwrecks on asylum decisions: Robustness to two-way clustering of standard errors

	1(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Shipwreck *t-1*	0.034*	0.024*	0.023*	0.024*
	(0.02)	(0.01)	(0.01)	(0.01)
Observations	20,653	20,653	20,653	20,653
Nb of treated units	1,630	1,630	1,630	1,630
Applicant characteristics	N	Y	Y	Y
Bureaucrat fixed effects	N	N	Y	Y
Day of the week	N	N	N	Y
R^2	0.000	0.348	0.391	0.391

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. This table replicates results in Table 1 but clusters standard errors at the level of the bureaucrats and the date of the interview.

Table B.5: Effect of migrant shipwrecks on asylum decisions: Robustness to varying the threshold used to define shipwrecks

	1(Granted refugee Status)						
	(1) > 0 drowned	(2) > 10 drowned	(3) > 20 drowned	(4) > 30 drowned	(5) > 50 drowned	(6) > 70 drowned	(7) > 90 drowned
Shipwreck *t-1*	0.004	0.012	0.021**	0.024*	0.033**	0.029*	0.049*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)
Observations	14,210	18,857	20,010	20,653	21,357	21,509	21,726
Nb of treated units	4,383	3,027	2,307	1,630	888	662	391
Applicant characteristics	Y	Y	Y	Y	Y	Y	Y
Bureaucrat fixed effects	Y	Y	Y	Y	Y	Y	Y
Day of the week	Y	Y	Y	Y	Y	Y	Y
R^2	0.403	0.391	0.391	0.391	0.390	0.391	0.391

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Asylum seekers interviewed on the day of a shipwreck are excluded. See text for control variable details.

Table B.6: Effect of migrant shipwrecks on asylum decisions: Restricting the analysis to shipwrecks featured in the news

	1(Granted refugee Status)						
	(1) > 0 drowned	(2) > 10 drowned	(3) > 20 drowned	(4) > 30 drowned	(5) > 50 drowned	(6) > 70 drowned	(7) > 90 drowned
Shipwreck *t-1*	0.015	0.029*	0.031*	0.041*	0.060*	0.060*	0.087**
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.03)
Observations	21,278	21,515	21,579	21,683	21,929	21,929	21,994
Nb of treated units	966	719	655	473	235	235	169
Applicant characteristics	Y	Y	Y	Y	Y	Y	Y
Bureaucrat fixed effects	Y	Y	Y	Y	Y	Y	Y
Day of the week	Y	Y	Y	Y	Y	Y	Y
R^2	0.389	0.389	0.390	0.390	0.390	0.390	0.390

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Asylum seekers interviewed on the day of a shipwreck are excluded. See text for control variable details.

C Robustness of the effect of terrorist attacks

Table C.1: Effect of terrorist attacks on asylum decisions

	1(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Attack *t-1*	-0.023	-0.020	-0.021	-0.020
	(0.02)	(0.01)	(0.01)	(0.01)
Observations	20,909	20,909	20,909	20,909
Nb of treated units	1,179	1,179	1,179	1,179
Applicant characteristics	N	Y	Y	Y
Bureaucrat fixed effects	N	N	Y	Y
Day of the week	N	N	N	Y
R^2	0.000	0.346	0.389	0.390

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Attack t-1 is an indicator variable for whether there was a terrorist attack the day before the interview. Asylum seekers interviewed on the day of a terrorist attack are excluded. See text for control variable details.

Table C.2: Effect of terrorist attacks on asylum decisions: Restricting the analysis to attacks claimed by ISIS

	1(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Attack *t-1*	0.021	-0.017	-0.014	-0.012
	(0.03)	(0.02)	(0.02)	(0.02)
Observations	21,733	21,733	21,733	21,733
Nb of treated units	339	339	339	339
Applicant characteristics	N	Y	Y	Y
Bureaucrat fixed effects	N	N	Y	Y
Day of the week	N	N	N	Y
R^2	0.000	0.348	0.390	0.391

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Attack t-1 is an indicator variable for whether there was a terrorist attack the day before the interview. Asylum seekers interviewed on the day of a terrorist attack are excluded. See text for control variable details.

Table C.3: Effect of terrorist attacks on asylum decisions for Syrian and Iraqi applicants: Restricting the comparison group to asylum seekers interviewed in the week leading up to an attack

	1(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Attack *t-1*	-0.182*	-0.174*	-0.106	-0.141
	(0.07)	(0.07)	(0.08)	(0.09)
Observations	378	378	378	378
Nb of treated units	58	58	58	58
Applicant characteristics	N	Y	Y	Y
Bureaucrat fixed effects	N	N	Y	Y
Day of the week	N	N	N	Y
R^2	0.023	0.202	0.448	0.461

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Attack t-1 is an indicator variable for whether there was a terrorist attack the day before the interview. Asylum seekers interviewed on the day of a terrorist attack are excluded. See text for control variable details.

Table C.4: Effect of terrorist attacks on asylum decisions for Syrian and Iraqi applicants: Falsification check

	$\mathbb{1}$(Granted refugee Status)			
	(1)	(2)	(3)	(4)
Attack *t+1*	0.036	0.047	0.054	0.038
	(0.06)	(0.07)	(0.07)	(0.07)
Observations	1,130	1,130	1,130	1,130
Nb of treated units	48	48	48	48
Applicant characteristics	N	Y	Y	Y
Bureaucrat fixed effects	N	N	Y	Y
Day of the week	N	N	N	Y
R^2	0.000	0.071	0.182	0.186

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Attack t+1 is an indicator variable for whether there was a terrorist attack the day after the interview. Asylum seekers interviewed on the day of a terrorist attack are excluded. See text for control variable details.

Table C.5: Effect of terrorist attacks on asylum decisions for Syrian and Iraqi applicants: Excluding the three deadliest terrorist attacks

	𝟙(Granted refugee Status)			
	(1) Excluding Jan 15,2015	(2) Excluding Nov 13,2015	(3) Excluding July 14, 2016	(4) Excluding All Three
Attack *t-1*	-0.198**	-0.196**	-0.217**	-0.214**
	(0.06)	(0.06)	(0.07)	(0.07)
Observations	1,255	1,249	1,129	1,124
Nb of treated units	70	70	58	58
Applicant characteristics	Y	Y	Y	Y
Bureaucrat fixed effects	Y	Y	Y	Y
Day of the week	Y	Y	Y	Y
R^2	0.175	0.179	0.200	0.204

Note: $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$. Standard errors, clustered at the bureaucrat level, are reported in parentheses. Attack t-1 is an indicator variable for whether there was a terrorist attack the day before the interview. Asylum seekers interviewed on the day of a terrorist attack are excluded. See text for control variable details.