

# Dirty Hands: Government Torture and Terrorism.<sup>1</sup>

Ursula Daxecker  
[u.daxecker@uva.nl](mailto:u.daxecker@uva.nl)  
*University of Amsterdam*

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Existing research suggests that the use of harsh repression can exacerbate the incidence and duration of terrorism. Micro and macro-level analyses have shown that coercive government responses to terrorism can radicalize sympathizers, increase recruitment, and undermine community support for counterterrorism policies, leading to backlash and increased terrorist activity. Focusing on torture techniques, this paper aims to establish mechanisms implicit in the backlash hypothesis. These arguments imply that information about government transgressions is available to potential group sympathizers, but have not examined whether and how variation in the visibility of different torture techniques affects the likelihood of backlash. Scarring torture, a technique that is both more visible and less plausibly deniable than other forms of torture, is expected to produce higher volumes of terrorism. Using disaggregated data on allegations of torture from the Ill-Treatment and Torture (ITT) project for 1995-2005, the analysis shows that scarring torture is consistently associated with increases in terrorism, whereas stealth torture has no statistically discernable effect on terrorism.

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## Introduction

In 2014, the excessive use of government violence against protesters in Venezuela and Ukraine contributed to an escalation of anti-government protests and violence. In Venezuela, the use of batons and tear gas against protesters and reports of mass arrests and the torture of detainees are argued to have mobilized and radicalized government opponents.<sup>2</sup> In Ukraine, police fire against protesters escalated protests into violence that until then had been largely peaceful. Case studies of terrorist groups such as the IRA similarly document how the use of repressive measures such as torture can contribute to the mobilization and radicalization of insurgent and terrorist organizations (White 1989; Conroy 2000). Academic research on repression and collective action has similarly found support for the escalatory effect of coercion on anti-government violence, while evidence for the deterrent effects of repression remain limited (Earl 2011). For terrorism, provoking the government to overreact in response to terrorism may be an explicit part of group strategy, since harsh counterterrorism measures could motivate potential sympathizers to actively or passively support the group. The use of coercive counterterrorism could thus backfire and increase terrorist activity.

This paper contributes to the literature on repression and terrorism by relating scarring and stealth torture, i.e., variation in one type of repression, to terrorist backlash. Arguments on backlash implicitly assume that information about repressive acts is available to potential supporters of terrorist organizations, thus ignoring whether and how variation in information availability across different types of repression affects terrorist backlash. Focusing on torture, the paper links variation in the visibility of different torture techniques to expectations on the likelihood of backlash and increased terrorism.<sup>3</sup> I argue that that scarring torture - a form of torture that is more visible and difficult to deny – increases backlash and therefore terrorism. In contrast, information about other techniques such as stealth torture will draw less media attention, can be plausibly denied by governments, and is thus less likely to produce backlash. Using disaggregated data on torture allegations (Conrad, Haglund, and Moore 2013; Conrad, Haglund, and Moore 2014a), I find that scarring torture increases the volume

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<sup>2</sup> New York Times, February 25, 2014, p.A25. [http://www.nytimes.com/2014/02/25/opinion/rash-repression-in-venezuela.html?\\_r=0](http://www.nytimes.com/2014/02/25/opinion/rash-repression-in-venezuela.html?_r=0)

<sup>3</sup> In line with Conrad, Haglund, and Moore (2012), I employ the United Nations Convention Against Torture's definition of torture, which defines it as "any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions."

of terrorist attacks, whereas stealth torture has no significant effect on terrorism. These results hold when controlling for confounding factors such as states' informational, institutional, and human rights environment. Additionally, the paper contributes to existing research by establishing support for the backlash hypothesis while taking seriously concerns on endogeneity in the torture-terrorism relationship. A substantial challenge in the assessment of backlash effects is establishing whether coercion triggered increased terrorist activity, or whether a positive relationship between torture and terrorism is simply the result of fear of terrorism influencing government coercion. Moreover, governments' choice of one or another type of torture technique may be endogenous to its expected effect on terrorism. Models of torture techniques suggest that the findings are not the result of reverse causality, the interdependence of torture and terrorism, or endogeneity in the choice of scarring versus stealth torture techniques. Finally, the paper contributes to other recent research on civil war and terrorism that disaggregates repression (Sullivan 2014; Piazza 2015).

The paper proceeds as follows. I first review the literature on torture and terrorism. The subsequent section links torture techniques and information availability to backlash and terrorism. I then present the empirical strategy and discuss the findings. A conclusion discusses implications for policy and the debate on the effectiveness of torture.

### **Torture and Terrorism: A Review**

What are the consequences of government torture for violent collective action such as terrorism?<sup>4</sup> In theory, torture could deter mobilization by providing information about terrorist group members, helping to successfully foil plots, or by instilling fear in the terrorist group and its supporters more generally. Alternatively, the use of torture could escalate a violent response if it alienates the population from the government, thus convincing sympathizers to join terrorist organizations or reducing citizens' willingness to cooperate with counterterrorism efforts. While no research has examined the effect of torture on terrorism, the literature on aggregate repression shows that empirical support for deterrent effects is sparse, with deterrent effects being limited to single-case studies (Lyll 2009) or conditional on the timing of repressive action, the type of government or nonstate actor involved, or the particular type of repression applied (Opp and Roehl 1990; Koopmans 1997;

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<sup>4</sup> The causal relationship between repression and collective action is complex and the literature on the subject too expansive to be reviewed here. While this paper focuses on repression as an independent variable affecting anti-government contestation, other work has examined the effect of collective action on repression or (Earl 2011) reciprocal relationships between the two concepts (Carey 2006; Rasler 1996; Piazza and Walsh 2010; Moore 1998), see also Earl (2011) and Davenport (2007) for a general overview.

Daxecker and Hess 2013; Lafree, Dugan, and Korte 2009).<sup>5</sup> Significantly more support exists for arguments expecting that repression can escalate anti-government violence, and such evidence exists at different levels of analysis and across various types of violent collective action. While not focusing on torture, terrorism research expects backlash effects for repression because heavy-handed coercion alienates members of marginalized groups from the government, victimizes innocents and drives them to terrorist groups, and radicalizes people already sympathetic to the goals of the group (Dragu and Polborn 2014; Walsh and Piazza 2010; Daxecker and Hess 2013; Bueno de Mesquita and Dickson 2007; Rosendorff and Sandler 2004; Piazza 2015).<sup>6</sup> The strategic logic proposed in research on terrorism – arguably a more marginalized and extreme form of violent collective action - suggests that provoking the government to overreact in response to terrorism may be an explicit part of groups’ strategy (Bueno de Mesquita and Dickson 2007). Heavy-handed government responses could help generate more tacit or active support for the group’s cause, but also undermine the effectiveness of counterterrorism policies by reducing community support for law enforcement. Empirical evidence in large-N studies shows support for backlash effects (at least in more open societies), demonstrating that repression increases the number of terrorist incidents and prolongs the duration of terrorist groups (Walsh and Piazza 2010; Daxecker and Hess 2013; Piazza 2015). Quantitative studies of single cases have similarly shown that excessive government responses, particularly when selecting targets indiscriminately, result in terrorist backlash (Benmelech, Berrebi, and Klor 2010; Lafree, Dugan, and Korte 2009; Asal et al. 2014). Survey research and interviews also document that mistreatment and perceived injustices can contribute to radicalization and undermine support for the government’s counterterrorism efforts in ethnic and religious communities (Huq, Tyler, and Schulhofer 2011; Tyler, Schulhofer, and Huq 2010; Jaeger et al. 2012). Similarly, research on civil war also demonstrates backlash effects, showing that excessive government violence against civilians reduces information available to the government and is therefore counterproductive from a counterinsurgency perspective (Condra and Shapiro 2012; Kocher, Pepinsky, and Kalyvas 2011; Kalyvas 2006). Focusing specifically on torture, Sullivan(2014) shows that torture was ineffective in reducing insurgent killings in a systematic, micro-level analysis of the Guatemalan civil war.

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<sup>5</sup> Recent work is beginning to distinguish among different types of repression on terrorism and insurgency (Piazza 2015; Sullivan 2014).

<sup>6</sup> Investigating the effect of terrorism on torture (i.e. the reverse causal relationship), research has found inconsistent effects, where terrorism consistently increases torture by military agents but not torture in the aggregate (Piazza and Walsh 2010; Conrad et al. 2014).

Existing work thus supports the notion that government repression including torture predominantly escalates rather than limits terrorism and insurgency, but tends to assume that information on government abuses is available to citizens. Yet while it seems reasonable to expect that information about government coercion spreads quickly through the network of a terrorist organization to its members, it is less clear whether and how such information becomes available to individuals outside the group. Focusing on torture, the next section further elaborates how the availability of information varies across different torture techniques, which has important consequences for its effect on terrorist backlash.

### **Torture, Information, and the Escalation of Terrorism**

Terrorism can be modeled as an interaction between a group, a government, and a population consisting of potential group supporters. Groups use terrorist violence as a strategy to influence the government's position but also domestic audiences. Since terrorist groups are more marginalized and hostile towards the government than the general population, they may use terrorist violence in order to provoke an overreaction from the government, which could then help shift public opinion in the group's favor. Triggering harsh counterterrorism policies such as torture, willful detentions, or extrajudicial killings can thus be an explicit part of terrorist group strategy in the hope that such overreaction convinces sympathizers to support the group and undermines the standing of the government (Kydd and Walter 2006; Bueno de Mesquita and Dickson 2007). Research suggests that an expansion of executive power in response to terrorism is common, even in democracies (Dragu and Polborn 2014; Haschke 2012; Dragu 2014; Conrad and Moore 2010). Conrad and Moore (2010) show that governments facing violent dissent face fewer incentives to place limits on torture. In democracies and authoritarian regimes alike, terrorism and other domestic conflict is linked to increasing incidence of repression, including torture, in what Davenport (2007) calls the "law of coercive responsiveness." The demand for harsh counterterrorism may come from citizens themselves who ask the government to respond forcefully. Security threats such as terrorist attacks thus seem to succeed in convincing governments to resort to extraordinary measures.

Yet the use of torture and other coercive government responses to terrorism can benefit terrorist groups and their ability to carry out attacks in several ways. Building on existing work, it is helpful to distinguish the effects of torture on group members, individuals in the vicinity of the group, including family members, friends, or neighbors, and the larger community, such as ethnic, religious, or political communities in which terrorists are

embedded.<sup>7</sup> First, with regard to existing members, government torture is likely to further radicalize them, hardening their commitment to the group, and increasing their willingness to carry out risky attacks. Second, the use of torture can function as a focal point that mobilizes silent sympathizers into activists for existing groups or convince them to provide material support to the group. Third, torture and other proactive counterterrorism measures could also alienate subsets of the population important for terrorism prevention, such as cooperation with the government in ethnic or religious communities in which terrorist groups have their roots.<sup>8</sup>

The occurrence of these backlash effects, however, hinges on the assumption that information about the incidence of torture is available to a subset of the population, neglecting that not all forms of torture are equally visible to citizens. Torture techniques constitute a form of repression with significant variation in the extent to which information is available and likely to spread to potential group supporters.<sup>9</sup> In particular, the distinction between scarring and stealth techniques emphasized in the literature on torture has important implications for information transmission (Rejali 2007). Scarring torture is a form of torture that leaves lesions or scars on the body and is therefore more difficult to hide or plausibly deny (Rejali 2007). Scarring torture encompasses techniques such as whipping, beating, kicking, burning, or sodomizing the detained. Conversely, stealth torture – techniques such as sleep deprivation, waterboarding, stress positions, hooding, hypothermia – is easier for governments to hide or plausibly deny responsibility (Rejali 2007). Scarring torture is thus more visible and difficult for governments to deny, and should be more robustly linked to backlash than stealth techniques.<sup>10</sup> I now proceed to comparing the effect of scarring and stealth torture on group members, their sympathizers, and the community at-large.

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<sup>7</sup> I focus on the domestic implications of repression in this paper, but repression could of course also target foreign actors (such as US counterterrorism after 9/11). These international implications are beyond the scope of this paper.

<sup>8</sup> The use of torture could also diminish support for counterterrorism efforts from the international community. While I do not examine international implications here, decreased support from foreign counterterrorism agencies is not inconsistent with the expected domestic effects here.

<sup>9</sup> In addition to techniques, it is likely that the identity of the perpetrators matters for information transmission. For example, torture by government agencies whose actions are more visible to the population, such as the military or the police, should inspire more backlash than torture by intelligence agencies, prison personnel, or immigration agencies, since their abuses may be more difficult to observe for potential terrorism supporters. Robustness tests presented in table A2 show support for this alternative conceptualization of the information mechanism with data from the ITT Specific Allegations (ITT SA) data.

<sup>10</sup> Additionally, scarring torture could lead to more consistent backlash effects because it has a stronger effect on grievances and undermines legitimacy more dramatically than other forms of torture. The U.S. debate over “enhanced interrogation”, and whether and when these techniques are justifiable to employ, suggests that stealth torture might be seen as more morally ambiguous than other torture techniques. While I cannot directly assess whether information availability or the intensity of grievances matter more, it is difficult to dismiss the importance of information transmission even if techniques also vary in how they affect grievances.

### *Scarring Torture and Escalation*

With regard to group members, it seems reasonable to expect that knowledge about both scarring and stealth torture spreads rapidly and easily within terrorist networks. Terrorist groups are used to operate clandestinely and have established ways of communicating with group members. While scarring torture could marginally affect within-group radicalization because of its egregiousness and indisputability, I do not anticipate that information transmission plays a major role for within-group effects.<sup>11</sup>

However, information transmission is likely to be important for backlash in the group's immediate vicinity and larger communities in its proximity. In order for terrorism to increase significantly in response to torture, increases in radicalization and alienation need to occur outside of the immediate group. For individuals in the immediate vicinity of terrorist groups, such as family members, friends, or neighbors, the use of scarring torture visibly and indisputably documents government transgressions, making it likely that information about torture spreads rapidly and leaving little ambiguity about what the government is or is not doing.<sup>12</sup> The availability of unambiguous information about government abuses is thus important for triggering changes in the behavior of previously inactive individuals. Reprehensive government tactics may convince some to join the movement or provide material support. In the Northern Ireland conflict, for example, the torture of detainees included beatings, being kicked in the genitals, and having their heads banged against the wall (among other harsh counterterrorism practices). The use of torture led to outrage in torture victims' vicinity and contributed to increases in recruitment of the Provisional IRA and greater material support (Thornton 2007). Similar anecdotal evidence on scarring techniques and their exacerbating effect on recruitment and financial support from those in terrorists' surroundings exist for the Algerian War and the Chechen conflict (Ghadbian 2000; Speckhard and Ahkmedova 2006). Speckhard and Ahkmedova's (2006) analysis of the Chechen conflict, for example, reveals that all 34 suicide terrorists in their sample had

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<sup>11</sup> It is however possible that terrorist groups produce violence below the maximum level possible. Although I cannot assess whether and how frequently groups under-produce violence, this possibility would mean that repression can increase group activity without any change in group support from the outside.

<sup>12</sup> Jim Auld, a 20-year old taken away by a paratrooper during the Northern Ireland conflict in 1971, captured the importance of visibility and deniability when saying to his mother upon his arrest: "Look, you can see that I am not marked in any way. You can see that I have no black-and-blue marks, no scratches, I am completely clean, and you can see his face. This is the guy who is in charge, so if there are any marks on me later, this is the guy that you need to remember (Auld, as quoted in Conroy (2000, 4)."

witnessed the beatings, torture, or deaths of close family members and argues that the deep trauma motivated their engagement in terrorism.<sup>13</sup>

In addition, scarring torture is likely to produce backlash effects in the larger community. Allegations of scarring torture make torture visible and allow for evidence to be documented and shared with the media and human rights organizations, thus also making it more difficult for the government to deny its responsibility. In Northern Ireland, for example, the injuries of those tortured with the “five techniques” were medically examined and allegations of torture received widespread attention by the media and human rights organizations (Conroy 2000; Amnesty International 1971). Media reports of government abuses, including photographs documenting such abuse, are likely to outrage people in the community, alienate them from the government, and decrease their willingness to cooperate with law enforcement, all of which hamper governments’ counterterrorism policies. While not focusing on torture per se, survey evidence has shown that harsh policing reduces cooperation for those belonging to ethnic or religious communities targeted with those policies, but also produces spillover effects reducing cooperation from those of non-targeted communities (Huq, Tyler, and Schulhofer 2011).

In consequence, I expect that the use of scarring torture exacerbates terrorism because it increases terrorist recruitment and material support provided by those in the group’s vicinity, while simultaneously reducing community cooperation with the government and the effectiveness of counterterrorism policies. While I would ideally distinguish between the effects of scarring torture on the group itself, its immediate surroundings, and the larger community, data on scarring torture and terrorism cannot be disaggregated to this level, leading to the following hypothesis.

*Hypothesis: A higher incidence of scarring torture is expected to increase the number of terrorist incidents in countries.*

#### *Stealth Torture and Escalation*

As discussed above, the government’s use of scarring or stealth torture is not expected to have varied effects on the probability of backlash within the group. Experiences of stealth

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<sup>13</sup> The sister of a suicide terrorist is quoted in Speckhard and Ahkmedova’s (2006, 456) as follows: “The soldiers beat and bound the husband of my sister and our brother and took them away. The next morning our relatives searched for them in the commandant’s offices and the filtration points (holding camps) but everywhere they were told that they there are not present. In two weeks their corpses were found on the outskirts of the village. There were many marks of tortures on them. After three months my sister tied explosives to herself and went to this commandant’s office. She told the guards that she had very important information for the chief and they allowed her to pass. She approached the chief of the commandant’s office and exploded herself there together with him.”

torture among members of the group are likely seen as credible among those already engaged in violent challenges to the government. Lower visibility and greater deniability of stealth torture, however, likely matter for the extent of backlash in the larger community. For those in communities proximate to the origins of terrorist groups, information about stealth torture is likely to leave more room for ambiguity and thus less probably lead to the increased radicalization of those in terrorists' vicinity. For the larger community and the public at-large, government use of stealth torture will spread more slowly and is likely to be accompanied by more uncertainty in the discussion. While human rights organizations can and do in fact report allegations of stealth torture, the lack of clearly visible evidence will leave room for debate and reduce the chance of an immediate public outcry. For example, reports on "stress and duress techniques" used by the U.S. military in Abu Ghraib in 2004, falling under the category of stealth torture, were discussed in the media as abuse rather than torture (Bennett, Lawrence, and Livingston 2006). The lengthy subsequent public debate over whether U.S. stealth torture techniques used under the label "enhanced interrogations" actually constitute torture similarly illustrates that governments can use moral ambiguities and lack of visually incriminating evidence to their advantage. Importantly, the debate occurred despite the fact that human rights organizations such as Amnesty International reported torture allegations against the U.S. military in yearly reports covering 2002, 2003, and 2004 (Amnesty International 2003; Amnesty International 2004; Amnesty International 2005). As late as May 2005, U.S. president George W. Bush rejected Amnesty International's report on the torture of Guantanamo detainees as "absurd" and based on the allegations of people "who hate America."<sup>14</sup> Turkey, another state often alleged of using stealth torture by domestic and international human rights organizations, has frequently denied the use of such practices (Amnesty International 1995).<sup>15</sup>

While it may be more difficult to dispute allegations of stealth torture over time as evidence to the contrary mounts, stealth torture is less likely to have short-term effects in line with the backlash hypothesis. I therefore expect no consistent effect of stealth torture on subsequent terrorism and do not formulate a hypothesis.

### *Endogeneity Concerns*

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<sup>14</sup> New York Times, May 31, 2005, "Bush's News Conference."  
[http://www.nytimes.com/2005/05/31/politics/31TEXT-BUSH.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2005/05/31/politics/31TEXT-BUSH.html?pagewanted=all&_r=0).

<sup>15</sup> BBC, December 31, 2000. "Turkey Denies Prison Torture Claims."  
<http://news.bbc.co.uk/2/hi/europe/1094571.stm>

The above discussion expects that government use of scarring torture is linked to increases in terrorist events, whereas stealth torture has no consistent effects on subsequent terrorism. Yet a threat to making these inferences is that the government's choice of scarring versus stealth torture could be endogenous to its expected effect on terrorism. In other words, governments could try to hide their dirty hands by choosing stealth torture in anticipation of backlash in response to scarring techniques. There are three reasons for why I do not expect these concerns to be warranted. First, research on torture frequently highlights the difficulties governments face in constraining the use of torture techniques by lower-level government officials (Rejali 2007; Conrad and Moore 2010). If agents believe that scarring torture is sometimes effective, and do not expect to be caught, they may disregard orders to use stealth techniques instead (Conrad and Moore 2010). Second, terrorist attacks can result in a public that is supportive or even requests visible and harsh counterterrorism measures. Evidence from public opinion research and survey experiments shows that support for torture in response to terrorism, while not usually a majority, is actually quite high (Gronke et al. 2010; Miller 2011; Piazza 2014). Miller's (2011) analysis of 31 countries (including democratic and authoritarian states) shows that support for torture ranges from approx. 17% (Spain) to 51% (Turkey and South Korea). Importantly, those requesting harsh counterterrorism are likely not the same individuals as those in communities and groups most targeted by proactive policies.<sup>16</sup> Third, bureaucratic agencies tasked with counterterrorism may have organizational incentives to push for harsh counterterrorism policies even if they reduce security from terrorism (Dragu 2011). Shifting counterterrorism policies from scarring to stealth torture is complicated by strategic biases and also the costliness and complexity of organizational adaptation. Taken together, the discussion suggests that governments cannot quickly and easily shift from scarring to stealth torture. I nevertheless revisit this and related endogeneity concerns in the empirical section, where I more conclusively establish that terrorism does not appear to correlate with torture techniques in ways that threaten the claims made here.

## **Empirical Analysis**

### *Data and Methods*

I test the hypotheses with a data set including all countries for the 1995-2005 period. This period was chosen because disaggregated data for torture techniques, the key independent

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<sup>16</sup> Otherwise, it would appear quite irrational for publics requesting harsh responses to later punish governments for it by shifting support to terrorist organizations.

variables, are not available for a longer time frame.<sup>17</sup> I use data from the Global Terrorism Database (GTD) to create a variable measuring the volume of domestic terrorism. I count the number of domestic terrorist incidents in the territory of each country for each year to create this measure. The variable thus excludes incidents committed by foreign terrorist organizations. To limit the sample to domestic events, I use a procedure similar to Enders, Sandler, and Gaibullov (2011).<sup>18</sup> As a first step, I drop all incidents not defined as terrorism proper in the GTD. I then drop incidents in which the national identity of the target is not identical to the state in which the incident occurred. Whether attacks with foreign targets should be included in the analysis arguably depends on whether the government responds to foreign terrorism with repression within its own territory, which is difficult to establish with existing data. To ensure that the exclusion of foreign incidents is not influencing results, robustness tests including domestic and foreign incidents from the GTD are presented in table A2. The domestic terrorism variable ranges empirically from 0 to 576. I use negative binomial regression to examine the relationship between torture and terrorism incidence.<sup>19</sup> Empirical results show estimates for main models using pooled and fixed-effects estimation. Theoretically, I am interested in both within-and between-country variation in scarring torture affects terrorism. In other words, I anticipate that the use of scarring torture within the same country over time will produce more terrorism, but also that countries with higher incidence of scarring torture are on average expected to experience more terrorism than those with lower rates or no scarring torture. Fixed-effects isolate the effect of scarring torture to within-unit variation over time, offering the advantage of controlling for unobservable unit heterogeneity that might otherwise influence the findings. In comparison, the pooled model estimates both between and within-unit variation and is generally more efficient, but has the disadvantage of not ruling out that unit-specific differences beyond the independent variables included are influencing the findings.

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<sup>17</sup> In additional robustness tests not presented, I examined whether torture at the aggregate level increases terrorism using measures of torture from the Cingranelli and Richards (CIRI) and Ill-Treatment and Torture Country-Year (ITT CY) data (Cingranelli and Richards 2010; Conrad, Haglund, and Moore 2013). These results showed that torture consistently and positively affects terrorism. Moreover, I also examined whether counterterrorism laws restricting privacy and procedural laws increase terrorism using the Legislative Responses to Terrorism (LeRIT) data to measure whether (Epifanio 2011). Results for counterterrorism laws also produced a positive association with terrorism.

<sup>18</sup> It is possible that some international events remain because group identities are often unknown, making it impossible to identify the nationality of the perpetrator in the GTD. For an extensive discussion of the complexities in distinguishing domestic and international terrorism, see chapter 8 in LaFree, Dugan, and Miller (2014).

<sup>19</sup> Model comparisons support the selection of the negative binomial model.

I use the Ill-Treatment and Torture Specific Allegations (ITT SA) data to examine if variation in torture techniques affects the incidence of terrorism as hypothesized. The data quantify all torture allegations in Amnesty International (AI) reports and other AI sources from 1995-2005 and distinguish allegations by torture technique (Conrad, Haglund, and Moore 2014a). One concern with these data is that they include information about torture allegations rather than the “true” number of torture events.<sup>20</sup> Measuring allegations rather than torture could lead to an under-or overestimation of the actual incidence of torture. On one hand, allegations of torture are almost by necessity an undercount of torture because governments try to hide such violations from domestic and international audiences (Conrad, Haglund, and Moore 2014, 436). If allegations indeed underestimate actual torture, finding empirical support for backlash effects and the hypotheses outlined here should be more difficult. Yet alternatively, one could argue that organizational incentives such as reliance on donations and volunteers could lead AI to exaggerate allegations. However, empirical investigations have shown that credibility concerns successfully counter incentives to exaggerate human rights violations (Hill, Moore, and Mukherjee 2013). Most problematic for the empirical analysis would be if reporting bias coincides with theoretical expectations. If AI reports scarring torture more frequently because it is easier to monitor than stealth torture, an empirical relationship between scarring torture and terrorism could be the result of differences in reporting rather than the dynamics outlined here (Conrad, Haglund, and Moore 2014, 434). I take this concern seriously by modeling the process by which AI produces allegations and the general reporting environment in states in empirical models. In addition, I present models with scarring and stealth torture as dependent variables, which do not suggest that factors explaining stealth torture are substantially different from those explaining scarring techniques.

The ITT SA data contain information on whether a torture allegation involved scarring or stealth torture techniques. The two types differ with respect to whether torture leaves marks on the body and are thus well suited to assess the theoretical expectations. I create two variables, one counting the number of scarring torture allegations for each country-year, another counting the number of stealth torture allegations for each country-year. Scarring and stealth allegations range from 0 to 125, and 0 to 70, respectively, but since

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<sup>20</sup> It is worth noting that other data sources on human rights violations (similar to most events data) also rely on allegations by state or nonstate actors rather than actual instances of violations. The CIRI data, for example, use allegations voiced in U.S. State Department Human Rights reports and yearly reports from Amnesty International in its coding of human rights reports.

data for both types of allegations are left-skewed, I take the natural log (+1).<sup>21</sup> Key independent variables and controls are lagged by one year to avoid simultaneity bias. Summary statistics for dependent and several of the independent variables are presented in table A1 in the appendix.<sup>22</sup>

The base model includes seven control variables that could affect the incidence of terrorism and torture. First, I control for GDP per capita (logged) using data from the World Bank.<sup>23</sup> Second, I control for population size (logged), again using World Bank data. Third, I include a dummy variable coded 1 for democratic states, since democracy is linked to both terrorism and the incidence of human rights violations. I include a dummy variable rather than the continuous polity measure because of multicollinearity concerns between human rights and democracy measures. Data come from the Polity IV project.<sup>24</sup> Fourth, I include a durability variable also available in Polity IV. Durability measures the number of years since a three-point change in a country's polity score. Fifth, I account for serial correlation by including a lagged moving average of the dependent variable. Cameron and Trivedi (2013) discuss the disadvantages of including a lagged dependent variable in count models and I therefore calculate a moving average of terrorism at  $t-1$ ,  $t-2$ , and  $t-3$ .<sup>25</sup> Sixth, I include yearly time dummy variables to account for increases or decreases in the incidence of terrorism resulting from unobserved factors. Finally, I control for spatial diffusion of terrorism by calculating the spatial lag of terrorism based on inverted distance.<sup>26</sup> Braithwaite and Li (2007) find strong support for spatial diffusion of terrorism. The spatial lag measures whether the incidence of terrorism in proximate states influences the risk of terrorism in other states. The variable is a continuous indicator ranging from 2.6 to 45.7.

In addition to the controls in base models, additional models control for possible confounding effects stemming from states' informational, institutional, and human rights environment. With regard to the informational environment, the discussion of the ITT SA data mentioned that scarring torture may be easier to monitor than stealth torture, and a correlation between scarring and terrorism could be the result of underlying reporting biases rather than the theoretical logic outlined here. Models include two variables to account for the likelihood with which AI learns of and reports an allegation. First, I use a measure included

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<sup>21</sup> I add one before taking the log so zero values remain zero after transformation. Robustness tests in table A2 with untransformed counts of allegations show that this transformation does not affect the findings.

<sup>22</sup> Summary statistics for standard control variables like population size are not shown to conserve space.

<sup>23</sup> Available at <http://data.worldbank.org/>.

<sup>24</sup> Available at <http://www.systemicpeace.org/polity/polity4.htm>.

<sup>25</sup> An alternative specification with a one-year lag does not alter the findings presented here.

<sup>26</sup> The CShapes dataset was used to create the inverted distance interdependence matrix (Weidmann, Kuse, and Gleditsch 2010).

in the ITT SA data that indicates whether AI had difficulty gaining access to detainees in a given year. This indicator is a dummy variable coded 1 if AI faced restrictions. Second, I control for the general media reporting environment by including a (logged) count of the number of news reports about a country appearing in Reuters Global News Service in a given year (Murdie and Peksen 2014).<sup>27</sup> These measures should help avoid that limitations on AI's ability to report are confounding the findings.

A related concern refers to how states' institutional environment could affect both the use of torture techniques and terrorism. Since I am particularly concerned about underreporting of stealth torture, I add a measure for judicial independence to the models, which has been argued to affect stealth but not scarring torture (Conrad, Hill, and Moore 2014). The indicator measures de facto judicial independence and ranges from 0 to 1 (Linzer and Staton 2011). Second, reporting on torture, particularly stealth techniques, could be easier in states with more respect for freedom of the press, and thus confound a relationship between torture techniques and terrorism. I code media freedom with data on freedom of speech and press from CIRI, ranging from less to more respect for media freedom.

The final two control variables account for states' human rights environment. First, I control for physical integrity rights violations other than torture. I use CIRI data to create a variable that includes killings, disappearances, and political imprisonment, thus all components of the physical integrity index except torture (Cingranelli and Richards 2010). I reverse the coding in CIRI so greater values indicate more human rights violations. It is possible that the scarring and stealth torture measures pick up the effect of a more generally repressive climate rather than the effect of torture techniques. Second, the ITT data also include information on torture allegations for which the technique used was unknown. Controlling for unstated allegations helps ensure that the omission of these events does not alter the effect of scarring and stealth torture measures. This variable is a logged count of unstated torture allegations per country-year.

## **Results**

### *Main Models*

TABLE 1 HERE

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<sup>27</sup> I also specified a model controlling for the number of human rights organizations in the country in addition to reporting in general. The results remained very similar but are not presented here because data on HROs are available only until 2003 (Murdie and Peksen 2014).

I begin by examining the main hypotheses on the effects of scarring and stealth torture on terrorism. Scarring torture was argued to produce more terrorist backlash because of its visibility and the difficulty to deny responsibility. The table shows results for pooled and fixed effects models and presents base models and additional models controlling for the informational, institutional, and human rights environment. In the pooled base model (model 1), the coefficient for scarring torture is positive and significant, indicating that greater numbers of scarring allegations increase the probability of terrorist escalation. The coefficient for stealth torture is negative but not statistically significant.

Figure 1 assesses the substantive effect of scarring torture. The dashed line (with 95% confidence intervals) plots the effect of logged scarring allegations on the predicted number of terrorist incidents across the entire range of the torture variable. We see that the predicted number of events increases across the range of scarring torture allegations (logged). When scarring torture is varied across its entire range from 0 to 5, the expected number of terrorist incidents increases from 2.3 to 9. Varying the scarring torture variable from 0.2 to 2.6 ( $\pm$  one standard deviation from the mean) increases the expected number of terrorist incidents from just below 2.5 to 4.6. The figure displays an overlaid kernel density histogram, represented in the dotted line, which shows the empirical distribution of the scarring torture variable. The density plot indicates that the substantive effect of torture on terrorism covers an empirically important range of values.

#### FIGURE 1 HERE

Model 2 adds control variables for states' information environment. The coefficient for scarring torture remains positive and significant in this model, indicating that the effect for scarring torture remains consistent when I account for the informational environment that could potentially influence how AI produces allegations. Restricted AI access is negative and significant, whereas media exposure is positive and significant, which is likely a result of the reliance on media reports in the collection of terrorism data. Model 3 adds controls for the institutional environment, including judicial independence and media freedom. Scarring torture continues to have a positive and significant effect on terrorism, whereas stealth torture is again insignificant. Neither the judicial independence nor the media freedom variables are statistically significant.

Model 4 includes human rights controls. The coefficient for scarring torture remains statistically significant and positive when I control for other human rights violations and unstated acts of torture. The human rights variable is positive and significant, showing that violations of physical integrity rights increase the risk of terrorism, whereas unstated torture

has no significant effect. Importantly, these results show that findings for scarring torture are not a result of scarring torture capturing a generally more repressive environment.

Figure 2 illustrates the marginal effect of scarring and stealth torture and the significant variables in models 1-4. The markers depict the expected change in the number of terrorist incidents for a one-unit change in independent variables (confidence intervals are indicated with brackets). The figure shows that scarring torture has consistently positive and substantively relevant effects on terrorism.

FIGURE 2 HERE

Models 5-8 replicate the first four models with fixed effects to control for the effect of unobserved unit heterogeneity. The fixed effects models are identical in specification with the exception of the lagged dependent variable, which is excluded because it can introduce bias in panel data in particular when the time period is short (Nickell 1981). Limited to within-unit variation, findings show that scarring torture significantly increases terrorism in all but model 8, where the effect is significant at the 90% level using a one-tailed test.

#### *Endogeneity of Torture Techniques and Terrorism*

TABLE 2 HERE

As mentioned at the outset, endogeneity concerns in the repression-terrorism relationship create challenges for disentangling causal mechanisms. I pursue three strategies to examine whether unresolved endogeneity issues are likely to affect the above results, which are presented in tables 2 and 3. First, in models 9-12 in table 2 I examine whether terrorism increases the use of torture techniques in ways that could influence the earlier findings. If terrorism increases scarring torture but not stealth torture, concerns over reverse causality would be more substantial. Alternatively, if terrorism increased stealth but not scarring torture, the findings could be driven by strategic behavior of governments that use stealth torture to avoid backlash. Using scarring and stealth torture as dependent variables, I build simple models of both torture types, including a lagged terrorism variable and a number of additional independent variables likely to affect the use of torture using a pooled and fixed effects approach. Models 9 and 10 show the pooled models and indicate no significant effect of terrorism on either scarring or stealth torture. In contrast, models 11 and 12 with fixed effects show that when limited to within unit variation, terrorism increases both scarring and stealth torture. While an assessment of the differences in pooled and fixed effects models are beyond the scope of this paper, what is important is that I do not observe evidence for patterns that threaten the inferences made here. Findings do not show that terrorism increases

the use of scarring torture but not stealth torture or vice versa, and it thus appears unlikely that scarring torture's effect on terrorism is driven entirely by reverse causality or endogeneity in the government's choice of strategies. Second, the last model in table 2, model 13, models the choice of scarring and stealth torture simultaneously using a multinomial logit model. Since many governments use scarring and stealth torture simultaneously, the model has four outcome variables, no torture (excluded as the base outcome), scarring torture only, stealth torture only, or the simultaneous use of both torture techniques. Most notably, the effect of lagged terrorism is insignificant for all three torture types, thus not confirming concerns related to reverse causality or the endogenous choice of techniques.

#### TABLE 3 HERE

Third, I specify a seemingly unrelated regression (SUR) model in which I model the incidence of scarring torture, stealth torture, and terrorism concurrently. Decisions to use torture and engaging in terrorist violence are linked theoretically in work on the repression-terrorism nexus, and thus likely not independent from each other. The SUR model accounts for such interdependent processes by assuming that errors in models of terrorism and torture techniques are correlated. I take the natural log (+1) of scarring allegations, stealth allegations, and terrorism since the SUR technique was developed for continuous dependent variables. Specifying a simple model of scarring and stealth torture (using the same variables as in table 2) and retaining the same variables for terrorism as in model 4 in table 1, results in table 3 show that the positive and significant effect of scarring torture remains consistent in the SUR model. A Breusch-Pagan test of independence also demonstrates that residuals from the three equations are not independent ( $\chi=408.6, p<0.0001$ ). Taken together, results in tables 2 and 3 increase my confidence that findings are not simply the result of terrorism's effect on torture techniques.

#### *Robustness Tests*

Additional robustness tests presented in the appendix examine whether the conceptualization and measurement of independent variables, the measurement of the dependent variable, preexisting terrorist violence, and the exclusion of international incidents affect the findings. The effect of scarring torture on terrorism remains consistent in these models.

#### **Conclusion**

A substantial body of research has found that harsh government repression produces backlash effects rather than deterring terrorism. However, these arguments assume that information about repressive measures is available to potential terrorist group supporters. Focusing on torture, I hypothesize that variation in the availability of information about different types of torture affects the incidence of terrorism. Empirical findings show that scarring torture – a technique that leaves visible marks and for which the government struggles to deny responsibility - leads to more backlash. In contrast, stealth torture has no statistically significant effect on the probability of terrorism. These findings hold in both pooled and fixed effects estimation and are also robust to changes in model specifications. Acknowledging the potential for reverse causality and endogeneity in decisions to torture and terrorism, models addressing these concerns show that findings do not seem to be driven by reverse causality, the interdependent nature of the repression-terrorism nexus, or endogeneity in governments' choice of scarring versus stealth torture.

In addition to providing evidence for the counterproductive effects of coercion, the paper has implications for policymakers and human rights NGOs. While findings show that the use of less visible tactics does not produce backlash, this evidence should not be interpreted as a how-to manual for governments wanting to engage in torture without consequences. Rather, findings suggest that the work of human rights organizations in uncovering clean torture techniques should be taken more seriously by media outlets who initially appear to find themselves in the sway of the government's counterterrorism narrative (Bennett, Lawrence, and Livingston 2006). Moreover, while more plausibly deniable torture may not produce immediate backlash effects, information about the government's behavior becoming available over time is likely to undermine popular support and cooperation in the long run. Finally, empirical findings are very much in line with others doubting the effectiveness of using torture as a counterterrorism tool. While stealth torture is less immediately counterproductive than other techniques, none of the findings support the notion that any type of torture technique succeeds in reducing or eradicating the use of terrorism by nonstate actors.



**Table 1: Negative Binomial Regression of Terrorist Incidents**

	<i>Pooled with Clustered SE</i>				<i>Country FE</i>			
	(1) Base Model	(2) Information Environment	(3) Institutional Environment	(4) H.R. Environment	(5) Base Model	(6) Information Environment	(7) Institutional Environment	(8) H.R. Environment
DV <sub>t-1</sub>	0.039** (0.010)	0.032** (0.007)	0.031** (0.007)	0.020** (0.006)				
DV, spatial lag <sub>t-1</sub>	0.047* (0.022)	0.053** (0.021)	0.056** (0.020)	0.053** (0.019)	0.003 (0.011)	0.014 (0.012)	0.015 (0.012)	0.020+ (0.011)
Scarring torture, logged <sub>t-1</sub>	0.271** (0.081)	0.212* (0.093)	0.216* (0.094)	0.220* (0.095)	0.120* (0.061)	0.114+ (0.060)	0.111+ (0.061)	0.098 (0.064)
Stealth torture, logged <sub>t-1</sub>	-0.004 (0.101)	0.090 (0.095)	0.094 (0.095)	0.081 (0.087)	-0.010 (0.064)	0.001 (0.063)	0.001 (0.063)	0.026 (0.067)
Restricted AI access <sub>t-1</sub>		-0.641* (0.254)	-0.638* (0.252)	-0.703** (0.227)		-0.140 (0.134)	-0.149 (0.136)	-0.179 (0.135)
Media exposure <sub>t-1</sub>		0.575** (0.126)	0.559** (0.127)	0.429** (0.109)		0.461** (0.081)	0.483** (0.083)	0.429** (0.084)
Judicial Independence <sub>t-1</sub>			0.449 (0.726)	1.359* (0.646)			0.004 (0.086)	0.036 (0.085)
Media freedom <sub>t-1</sub>			0.062 (0.147)	0.324* (0.147)			-0.507 (0.455)	-0.058 (0.461)
Other H.R. violations <sub>t-1</sub>			-0.049 (0.096)	0.327** (0.068)				0.143** (0.034)
Unstated torture <sub>t-1</sub>				-0.049 (0.096)				-0.032 (0.058)
GDP per capita, logged <sub>t-1</sub>	0.005 (0.129)	-0.421** (0.139)	-0.460** (0.152)	-0.320* (0.145)	0.109 (0.082)	-0.181+ (0.095)	-0.137 (0.103)	-0.080 (0.103)
Population, logged <sub>t-1</sub>	0.333** (0.102)	-0.061 (0.141)	-0.034 (0.144)	0.012 (0.128)	0.191** (0.053)	-0.144+ (0.078)	-0.166* (0.081)	-0.179* (0.081)
Democracy dummy <sub>t-1</sub>	-0.054 (0.266)	0.036 (0.235)	-0.129 (0.349)	-0.259 (0.347)	0.043 (0.137)	-0.064 (0.136)	0.039 (0.164)	0.034 (0.160)
Durability <sub>t-1</sub>	0.002 (0.004)	-0.003 (0.003)	-0.004 (0.003)	-0.002 (0.003)	0.003 (0.002)	-0.001 (0.003)	-0.001 (0.003)	-0.001 (0.003)
Constant	-1.089 (1.062)	-0.245 (0.995)	-0.117 (1.033)	-2.569* (1.097)	-1.286+ (0.675)	-1.150+ (0.656)	-1.426* (0.697)	-2.576** (0.752)
Year FE	yes	yes	yes	yes	yes	yes	yes	yes
Country FE	no	no	no	no	yes	yes	yes	yes
Observations	1,140	1,140	1,140	1,140	1,140	1,140	1,140	1,140

Note: Clustered standard errors in parentheses. \*\* p<0.01, \* p<0.05, + p<0.1 (two-tailed tests)

Figure 1: Effect of Scarring Torture on Predicted Number of Terrorist Incidents, Model 1 Table 1

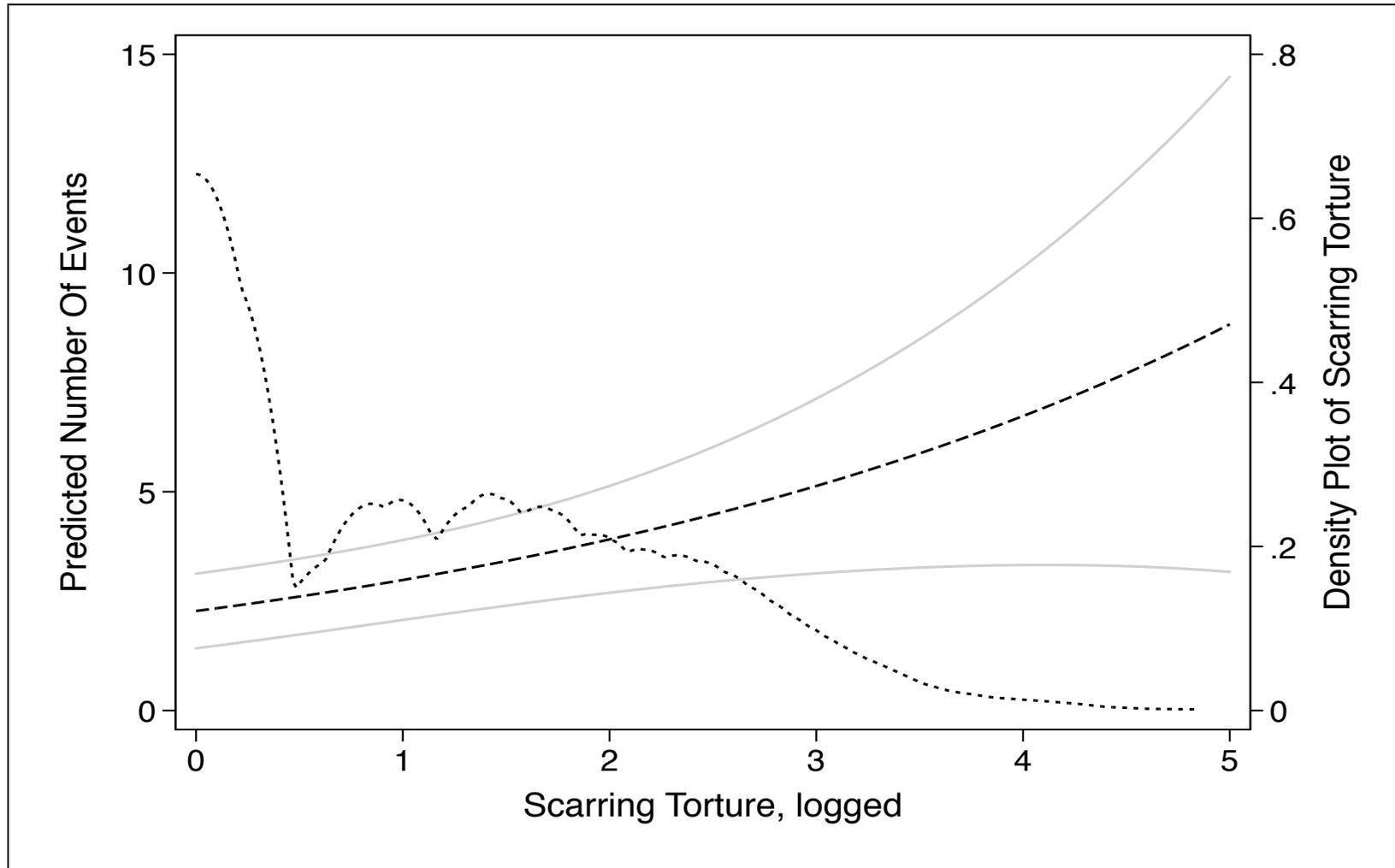
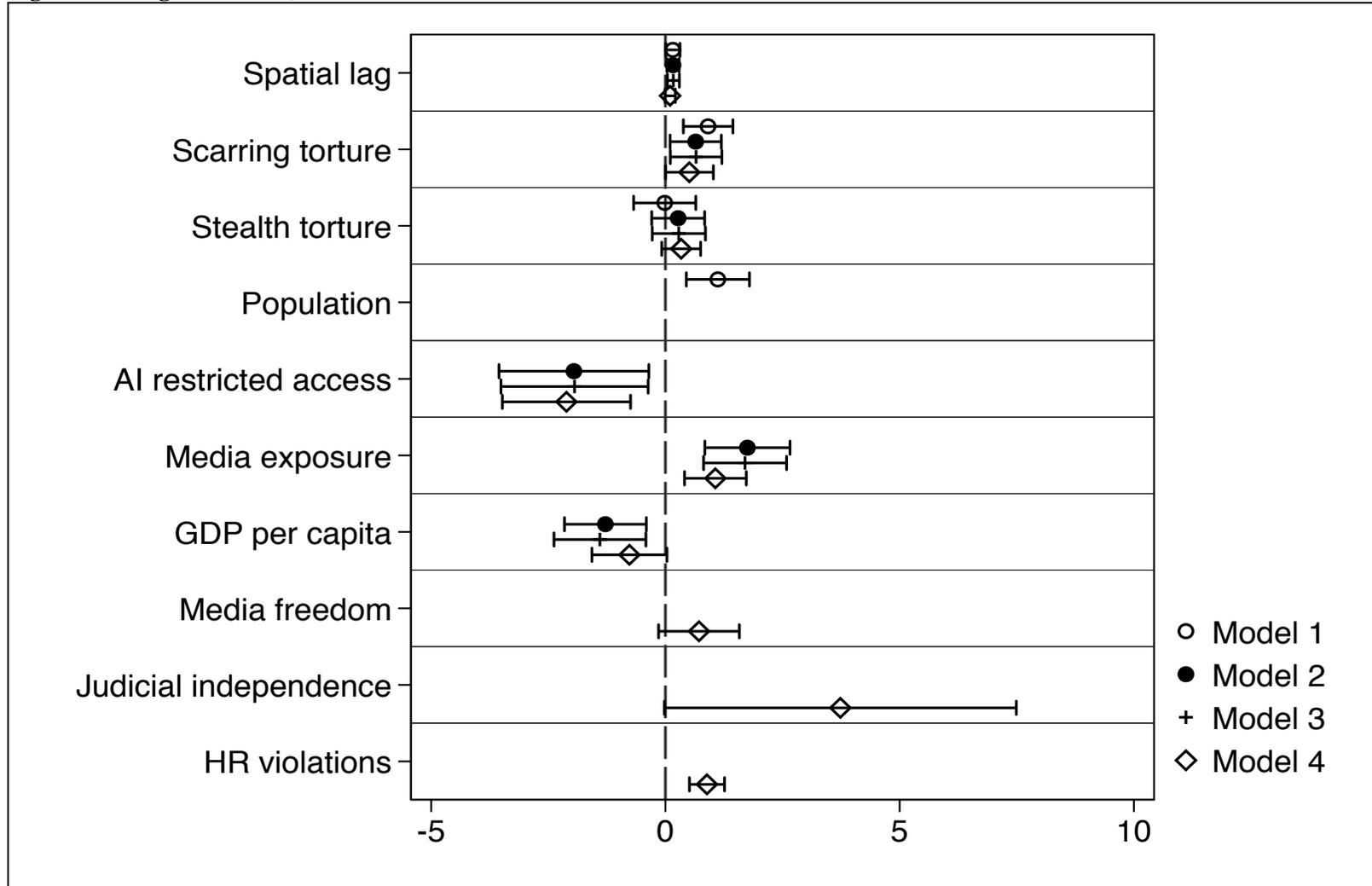


Figure 2: Marginal Effects, Models 1-4 Table 1



**Table 2: Negative Binomial Regression of Torture Techniques**

	<i>Pooled With Clustered SE</i>		<i>Country FE</i>		<i>Multinomial Logit</i>		
	(9) DV=Scarring Torture	(10) DV=Stealth Torture	(11) DV=Scarring Torture	(12) DV=Stealth Torture	(13) DV=Scarring only	(13) DV=Stealth only	(13) DV=Scarring and Stealth
Terrorism <sub>t-1</sub>	0.001 (0.001)	-0.001 (0.002)	0.001* (0.001)	0.002+ (0.001)	0.003 (0.010)	0.005 (0.010)	-0.000 (0.010)
Restricted AI access <sub>t-1</sub>	0.584** (0.165)	0.722** (0.224)	0.260* (0.101)	0.218 (0.139)	0.952 (0.657)	1.710* (0.722)	1.290* (0.632)
Media exposure <sub>t-1</sub>	0.118 (0.087)	0.071 (0.102)	0.076 (0.064)	0.023 (0.093)	0.025 (0.135)	0.131 (0.271)	-0.059 (0.166)
Judicial independence <sub>t-1</sub>	-0.698 (0.568)	0.175 (0.554)	-0.639 (0.433)	-0.000 (0.099)	0.093 (1.019)	0.009 (1.473)	-0.410 (1.204)
Media freedom <sub>t-1</sub>	-0.173 (0.122)	-0.213 (0.137)	0.041 (0.071)	-0.891 (0.564)	-0.283 (0.204)	-0.447 (0.423)	-0.357 (0.223)
Other H.R. violation <sub>t-1</sub>	0.142** (0.047)	0.184** (0.053)	0.075** (0.029)	0.008 (0.039)	0.245* (0.107)	-0.013 (0.176)	0.353** (0.110)
Democracy <sub>t-1</sub>	0.089 (0.238)	-0.216 (0.199)	-0.128 (0.143)	-0.173 (0.198)	-0.343 (0.421)	-0.369 (0.677)	-0.196 (0.485)
Civil war <sub>t-1</sub>	0.397* (0.191)	0.388 (0.236)	0.171 (0.123)	0.234 (0.165)	0.555 (0.754)	1.145 (1.177)	1.234+ (0.721)
GDP per capita <sub>t-1</sub>	0.088 (0.099)	0.247* (0.123)	0.315** (0.086)	0.227+ (0.132)	-0.098 (0.159)	0.148 (0.313)	0.364+ (0.192)
Population <sub>t-1</sub>	0.187+ (0.100)	0.364** (0.104)	0.127+ (0.073)	0.135 (0.100)	0.363* (0.157)	0.154 (0.267)	0.787** (0.183)
Constant	-0.765 (0.722)	-3.839** (0.788)	-3.076** (0.564)	-1.919* (0.884)	-0.635 (1.179)	-3.757 (2.426)	-4.891** (1.437)
Year FE	yes	yes	yes	yes	yes	yes	yes
Country FE	no	no	yes	yes	no	no	no
Observations	1,234	1,234	1,171	1,078	1,234	1,234	1,234

\*\* p<0.01, \* p<0.05, + p<0.1 (two-tailed tests)

**Table 3: Seemingly Unrelated Regression of Terrorism, Scarring Torture, and Stealth Torture**

	(14) DV=Terrorism	(14) DV=Scarring Torture	(14) DV=Stealth Torture
Terrorism <sub>t-1</sub>	0.012** (0.001)	0.001+ (0.001)	-0.001 (0.001)
Terrorism, spatial lag <sub>t-1</sub>	0.031** (0.008)		
Scarring torture, logged <sub>t-1</sub>	0.141** (0.038)		
Stealth torture, logged <sub>t-1</sub>	-0.018 (0.046)		
Restricted AI access <sub>t-1</sub>	-0.217+ (0.120)	0.647** (0.116)	0.604** (0.094)
Media exposure <sub>t-1</sub>	0.166** (0.034)	0.031 (0.033)	0.011 (0.027)
Judicial independence <sub>t-1</sub>	0.712** (0.215)	-0.464* (0.205)	-0.069 (0.166)
Media freedom <sub>t-1</sub>	0.141** (0.053)	-0.044 (0.052)	-0.035 (0.042)
Other H.R. violations <sub>t-1</sub>	0.236** (0.022)	0.122** (0.022)	0.076** (0.017)
GDP per capita, logged <sub>t-1</sub>	-0.158** (0.042)	0.124** (0.041)	0.128** (0.033)
Population, logged <sub>t-1</sub>	0.057 (0.035)	0.188** (0.034)	0.201** (0.027)
Democracy dummy <sub>t-1</sub>	0.116 (0.093)	-0.022 (0.090)	-0.073 (0.073)
Durability <sub>t-1</sub>	0.001 (0.001)		
Civil war <sub>t-1</sub>		-0.159 (0.131)	-0.021 (0.106)
Constant	-1.113** (0.315)	-0.570+ (0.291)	-0.964** (0.235)
Observations	1,154	1,154	1,154

R-squared	0.554	0.299	0.292
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\*\*p<0.01, \* p<0.05, + p<0.1 (two-tailed tests)

## References

- Amnesty International. 1971. "Annual Report: 1 June 1971- 31 May 1972." London, UK: Amnesty International Publishers.
- . 1995. "Turkey, a Policy of Denial." Amnesty International Publishers.
- . 2003. "Report 2003." London, UK: Amnesty International Publishers.
- . 2004. "Report 2004." London, UK: Amnesty International Publishers.
- . 2005. "Report 2005." London, UK: Amnesty International Publishers.
- Asal, Victor, Paul Gill, R. Karl Rethemeyer, and John Horgan. 2014. "Killing Range Explaining Lethality Variance within a Terrorist Organization." *Journal of Conflict Resolution*.
- Benmelech, Efraim, Claude Berrebi, and Esteban Klor. 2010. "Counter-Suicide Terrorism: Evidence from House Demolitions." *NBER Working Paper No. 16493*.
- Bennett, W. Lance, Regina G. Lawrence, and Steven Livingston. 2006. "None Dare Call It Torture: Indexing and the Limits of Press Independence in the Abu Ghraib Scandal." *Journal of Communication* 56 (3): 467–85.
- Braithwaite, Alex, and Quan Li. 2007. "Transnational Terrorism Hot Spots: Identification and Impact Evaluation." *Conflict Management and Peace Science* 24 (4): 281–96.
- Bueno de Mesquita, Ethan, and Eric S. Dickson. 2007. "The Propaganda of the Deed: Terrorism, Counterterrorism, and Mobilization." *American Journal of Political Science* 51 (2): 364–81.
- Cameron, A. Colin, and Pravin K. Trivedi. 2013. *Regression Analysis of Count Data*. 53. Cambridge University Press.
- Carey, Sabine C. 2006. "The Dynamic Relationship between Protest and Repression." *Political Research Quarterly* 59 (1): 1–11.
- Cingranelli, David L., and David L. Richards. 2010. "The Cingranelli and Richards (CIRI) Human Rights Data Project." *Human Rights Quarterly* 32 (2): 401–24.
- Condra, Luke N., and Jacob N. Shapiro. 2012. "Who Takes the Blame? The Strategic Effects of Collateral Damage." *American Journal of Political Science* 56 (1): 167–87.
- Conrad, Courtenay R., Justin Conrad, James Igoe Walsh, and James A. Piazza. 2014. "Who Tortures the Terrorists? Transnational Terrorism and Military Torture." *Foreign Policy Analysis*, September, n/a – n/a.
- Conrad, Courtenay R., Jillienne Haglund, and Will H. Moore. 2012. "Disaggregating Torture Allegations: Introducing the Ill-Treatment and Torture (ITT) Country-Year Data." *International Studies Perspectives*.
- . 2013. "Disaggregating Torture Allegations: Introducing the Ill-Treatment and Torture (ITT) Country-Year Data." *International Studies Perspectives* 14 (2): 199–220. doi:10.1111/j.1528-3585.2012.00471.x.
- . 2014a. "Torture Allegations as Events Data Introducing the Ill-Treatment and Torture (ITT) Specific Allegation Data." *Journal of Peace Research* 51 (3): 429–38. doi:10.1177/0022343314524427.
- . 2014b. "Torture Allegations as Events Data Introducing the Ill-Treatment and Torture (ITT) Specific Allegation Data." *Journal of Peace Research* 51 (3): 429–38.
- Conrad, Courtenay R., Daniel W. Hill, and Will H. Moore. 2014. "Political Institutions, Plausible Deniability, and the Decision to Hide Torture." SSRN Scholarly Paper ID 2481762. <http://papers.ssrn.com/abstract=2481762>.
- Conrad, Courtenay R., and Will H. Moore. 2010. "What Stops the Torture?" *American Journal of Political Science* 54 (2): 459–76. doi:10.1111/j.1540-5907.2010.00441.x.
- Conroy, John. 2000. *Unspeakable Acts, Ordinary People: The Dynamics of Torture*. 1st ed. New York: Knopf.
- Davenport, Christian. 2007. "State Repression and Political Order." *Annual Review of Political Science* 10: 1–23.
- Daxecker, Ursula E., and Michael L. Hess. 2013. "Repression Hurts: Coercive Government Responses and the Demise of Terrorist Campaigns." *British Journal of Political Science* 43 (03): 559–77.
- Dragu, Tiberiu. 2011. "Is There a Trade-off between Security and Liberty? Executive Bias, Privacy Protections, and Terrorism Prevention." *American Political Science Review* 105 (01): 64–78.

- . 2014. “On Repression and Its Effectiveness.” *Working Paper*.
- Dragu, Tiberiu, and Mattias Polborn. 2014. “The Rule of Law in the Fight against Terrorism.” *American Journal of Political Science* 58 (2): 511–25. doi:10.1111/ajps.12061.
- Earl, Jennifer. 2011. “Political Repression: Iron Fists, Velvet Gloves, and Diffuse Control.” *Annual Review of Sociology* 37: 261–84.
- Enders, W., T. Sandler, and K. Gaibullov. 2011. “Domestic versus Transnational Terrorism: Data, Decomposition, and Dynamics.” *Journal of Peace Research* 48 (3): 319–37.
- Epifanio, M. 2011. “Legislative Response to International Terrorism.” *Journal of Peace Research* 48 (3): 399–411.
- Ghadbian, Najib. 2000. “Political Islam and Violence.” *New Political Science* 22 (1): 77–88. doi:10.1080/713687889.
- Gronke, Paul, Darius Rejali, Dustin Drenguis, James Hicks, Peter Miller, and Bryan Nakayama. 2010. “U.S. Public Opinion on Torture, 2001–2009.” *PS: Political Science and Politics* 43 (3): 437–44.
- Haschke, Peter. 2012. “Ausnahmezustand: Citizenship and the Protection of Physical Integrity Rights.” In *Annual Meeting of the Midwest Political Science Association*.
- Hill, Daniel W., Will H. Moore, and Bumba Mukherjee. 2013. “Information Politics Versus Organizational Incentives: When Are Amnesty International’s ‘Naming and Shaming’ Reports Biased? 1.” *International Studies Quarterly* 57 (2): 219–32.
- Huq, Aziz Z., Tom R. Tyler, and Stephen J. Schulhofer. 2011. “Why Does the Public Cooperate with Law Enforcement? The Influence of the Purposes and Targets of Policing.” *Psychology, Public Policy, and Law* 17 (3): 419–50. doi:10.1037/a0023367.
- Jaeger, David A., Esteban F. Klor, Sami H. Miaari, and M. Daniele Paserman. 2012. “The Struggle for Palestinian Hearts and Minds: Violence and Public Opinion in the Second Intifada.” *Journal of Public Economics* 96 (3–4): 354–68. doi:10.1016/j.jpubeco.2011.12.001.
- Kalyvas, Stathis N. 2006. *The Logic of Violence in Civil War*. Cambridge Univ Press.
- Kocher, Matthew Adam, Thomas B. Pepinsky, and Stathis N. Kalyvas. 2011. “Aerial Bombing and Counterinsurgency in the Vietnam War.” *American Journal of Political Science* 55 (2): 201–18.
- Koopmans, Ruud. 1997. “Dynamics of Repression and Mobilization: The German Extreme Right in the 1990s.” *Mobilization: An International Quarterly* 2 (2): 149–64.
- Kydd, Andrew H., and Barbara F. Walter. 2006. “The Strategies of Terrorism.” *International Security* 31 (1): 49–80. doi:10.1162/isec.2006.31.1.49.
- Lafree, Gary, Laura Dugan, and Raven Korte. 2009. “The Impact of British Counterterrorist Strategies on Political Violence in Northern Ireland: Comparing Deterrence and Backlash Models\*.” *Criminology* 47 (1): 17–45.
- LaFree, Gary, Laura Dugan, and Erin Miller. 2014. *Putting Terrorism in Context: Lessons from the Global Terrorism Database*. Routledge.
- Linzer, Drew A., and Jeffrey K. Staton. 2011. “A Measurement Model for Synthesizing Multiple Comparative Indicators: The Case of Judicial Independence.” In *Presentation at the 2011 Annual Meeting of the American Political Science Association, September, 1–4*. <http://polisci.emory.edu/faculty/jkstaton/resources/WorkingPapers/LS-scaling-140430.pdf>.
- Lyall, Jason. 2009. “Does Indiscriminate Violence Incite Insurgent Attacks? Evidence from Chechnya.” *Journal of Conflict Resolution* 53 (3): 331–62.
- Miller, Peter. 2011. “Torture Approval in Comparative Perspective.” *Human Rights Review* 12 (4): 441–63. doi:10.1007/s12142-011-0190-2.
- Moore, Will H. 1998. “Repression and Dissent: Substitution, Context, and Timing.” *American Journal of Political Science*, 851–73.
- Murdie, Amanda, and Dursun Peksen. 2014. “The Impact of Human Rights INGO Shaming on Humanitarian Interventions.” *The Journal of Politics* 76 (01): 215–28.
- Nickell, Stephen. 1981. “Biases in Dynamic Models with Fixed Effects.” *Econometrica* 49 (6): 1417–26. doi:10.2307/1911408.
- Opp, Karl-Dieter, and Wolfgang Roehl. 1990. “Repression, Micromobilization, and Political Protest.” *Social Forces* 69 (2): 521–47.

- Piazza, James A. 2014. "Terrorist Suspect Religious Identity and Public Support for Harsh Interrogation and Detention Practices." *Political Psychology*, May, n/a – n/a. doi:10.1111/pops.12190.
- . 2015. "Repression and Terrorism: A Cross-National Empirical Analysis of Types of Repression and Domestic Terrorism." *Terrorism and Political Violence* 0 (0): 1–17. doi:10.1080/09546553.2014.994061.
- Piazza, James A., and James Igoe Walsh. 2010. "Physical Integrity Rights and Terrorism." *Political Science and Politics* 43 (3): 411–14.
- Rasler, Karen. 1996. "Concessions, Repression, and Political Protest in the Iranian Revolution." *American Sociological Review*, 132–52.
- Rejali, Darius M. 2007. *Torture and Democracy*. Princeton: Princeton University Press.
- Rosendorff, B. Peter, and Todd Sandler. 2004. "Too Much of a Good Thing? The Proactive Response Dilemma." *Journal of Conflict Resolution* 48 (5): 657–71.
- Speckhard, Anne, and Khapta Ahkmedova. 2006. "The Making of a Martyr: Chechen Suicide Terrorism." *Studies in Conflict & Terrorism* 29 (5): 429–92. doi:10.1080/10576100600698550.
- Sullivan, Christopher Michael. 2014. "The (in)effectiveness of Torture for Combating Insurgency." *Journal of Peace Research*, March, 0022343313520023. doi:10.1177/0022343313520023.
- Thornton, Rod. 2007. "Getting It Wrong: The Crucial Mistakes Made in the Early Stages of the British Army's Deployment to Northern Ireland (August 1969 to March 1972)." *Journal of Strategic Studies* 30 (1): 73–107. doi:10.1080/01402390701210848.
- Tyler, Tom R., Stephen Schulhofer, and Aziz Z. Huq. 2010. "Legitimacy and Deterrence Effects in Counterterrorism Policing: A Study of Muslim Americans." *Law & Society Review* 44 (2): 365–402. doi:10.1111/j.1540-5893.2010.00405.x.
- Walsh, James I., and James A. Piazza. 2010. "Why Respecting Physical Integrity Rights Reduces Terrorism." *Comparative Political Studies* 43 (5): 551–77.
- Weidmann, Nils B., Doreen Kuse, and Kristian Skrede Gleditsch. 2010. "The Geography of the International System: The CShapes Dataset." *International Interactions* 36 (1): 86–106.
- White, Robert W. 1989. "From Peaceful Protest to Guerrilla War: Micromobilization of the Provisional Irish Republican Army." *American Journal of Sociology*, 1277–1302.



## Appendix

**Table A1: Summary Statistics for Dependent and Selected Independent Variables**

	Sample Mean	Standard Deviation
Terrorist Incidents	13.374	37.948
Spatial Lag Terrorism	11.030	5.985
Scarring torture (ITT)	5.633	8.772
Stealth torture (ITT)	2.243	5.077
Scarring torture, logged	1.321	1.056
Stealth torture, logged	0.703	0.843
Police torture, logged	1.137	1.030
Military torture, logged	0.590	0.892
Paramilitary torture, logged	0.072	0.358
Intelligence torture, logged	0.104	0.350
Immigration torture, logged	0.079	0.328
Prison torture, logged	0.561	0.783
Restricted AI access	0.057	0.233
Media exposure	6.992	1.859
Human rights (CIRI)	4.466	2.311
Observations	1140	

**Table A2: Robustness Tests**

	(1) Unlogged IVs	(2) Scarring Ratio	(3) Standardized Torture	(4) Agents	(5) Preexisting Terrorism	(6) All GTD
DV <sub>t-1</sub>	0.039** (0.010)	0.040** (0.011)	0.039** (0.010)	0.032** (0.008)	0.028** (0.007)	0.032** (0.006)
DV, spatial lag <sub>t-1</sub>	0.043+ (0.023)	0.047* (0.023)	0.047* (0.022)	0.036 (0.022)	0.070** (0.025)	0.067** (0.021)
Scarring torture <sub>t-1</sub>	0.033** (0.012)					
Stealth torture <sub>t-1</sub>	-0.018 (0.017)					
Scarring torture, logged <sub>t-1</sub>					0.197* (0.087)	0.242** (0.075)
Stealth torture, logged <sub>t-1</sub>					-0.032 (0.103)	-0.022 (0.088)
Scarring Ratio, logged <sub>t-1</sub>		0.569+ (0.335)				
Standardized scarring, logged <sub>t-1</sub>			0.288** (0.086)			
Standardized stealth, logged <sub>t-1</sub>			-0.003 (0.080)			
Police, logged <sub>t-1</sub>				0.154 (0.096)		
Military, logged <sub>t-1</sub>				0.277** (0.092)		
Paramilitary, logged <sub>t-1</sub>				-0.100 (0.116)		
Prison, logged <sub>t-1</sub>				0.120 (0.301)		
Intelligence, logged <sub>t-1</sub>				-0.189 (0.185)		
Immigration, logged <sub>t-1</sub>				-0.249* (0.102)		

Agent unstated, logged <sub>t-1</sub>				0.206+		
				(0.109)		
GDP per capita, logged <sub>t-1</sub>	0.007	0.042	0.005	0.049	0.088	0.016
	(0.136)	(0.130)	(0.129)	(0.123)	(0.154)	(0.113)
Population, logged <sub>t-1</sub>	0.356**	0.367**	0.333**	0.365**	0.269*	0.335**
	(0.103)	(0.093)	(0.102)	(0.093)	(0.136)	(0.086)
Democracy <sub>t-1</sub>	-0.053	-0.098	-0.054	0.002	-0.276	-0.182
	(0.259)	(0.259)	(0.266)	(0.288)	(0.313)	(0.239)
Durability <sub>t-1</sub>	0.003	0.002	0.002	0.003	0.004	0.001
	(0.004)	(0.003)	(0.004)	(0.004)	(0.004)	(0.003)
Constant	-0.884	-1.276	-0.815	-1.245	-1.359	-1.241
	(1.104)	(1.080)	(1.076)	(1.022)	(1.259)	(0.939)
Observations	1,140	1,140	1,140	1,140	700	1,140

Note: Clustered standard errors in parentheses, year fixed effects not reported. \*\* p<0.01, \* p<0.05, + p<0.1 (two-tailed tests)

### *Additional Robustness Tests*

Table A2 examines whether the conceptualization and measurement of independent variables, the measurement of the dependent variable, preexisting terrorist violence, and the exclusion of international incidents affect the results. To conserve space, I present only pooled estimates. The first model includes the actual count of scarring and stealth allegations rather than log-transforming these variables. The coefficient for scarring torture is again positive and significant, whereas stealth torture has no apparent effect on terrorism (Walsh and Piazza 2010). Since it is not uncommon for governments to use scarring and stealth techniques at once, model 2 assesses whether a greater proportion of scarring rather than stealth torture leads to more terrorism. The ratio measures the proportion of scarring torture relative to all torture allegations.<sup>28</sup> The positive and significant coefficient shows that a higher proportion of scarring torture increases the incidence of terrorism. In model 3, variables on torture are standardized (with a mean of zero and standard deviation of one) to address potentially different rates of reporting in scarring versus stealth torture. The coefficient for the standardized scarring torture variable remains positive and significant, whereas standardized stealth torture events do not affect terrorism.

Model 4 presents an alternative conceptualization of the information transmission mechanism discussed in the theoretical section.<sup>29</sup> As mentioned in footnote 8, torture by government agencies whose actions are more visible to the population, such as the military or the police, should inspire more backlash than torture by intelligence agencies, prison personnel, or immigration agencies, since their abuses are more difficult to observe for potential terrorism supporters. I use the ITT SA data to indicate whether military, police, prison, intelligence, immigration, or paramilitary government actors were accused of engaging in torture. For each agent, I create a count of the number of torture allegations per country-year, which are then log transformed because of skewness. Model 4 supports this expectation, indicating with a positive coefficient that torture by military leads to increased incidence of terrorism. Torture by police also has a positive and significant effect, albeit only in a one-tailed test. Torture by prison officials, on the other hand, significantly reduces the incidence of terrorism, whereas coefficients for all remaining agent variables are

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<sup>28</sup> I divide scarring allegations by the sum of scarring and stealth allegations to create the proportion. I also log the ratio variable because of skewness.

<sup>29</sup> As discussed in footnote 9, variation in victims cannot be used as an alternative measure of the legitimacy argument since it is not possible to establish whether victimization patterns coincide with actual responsibility for offenses.

insignificant. Findings on agents help corroborate the importance of information transmission with an alternative measure.

Model 5 restricts the analysis to states that have experienced substantial terrorism prior to the time period under analysis. Arguments on backlash imply that the government is provoked into an overreaction by prior terrorist events. I thus create a dummy measure coded 1 if a country experienced more than 10 terrorist events prior to 1995 and include only these states in the sample. Scarring torture again has a positive and significant effect on terrorism. Model 6 includes international events in the analysis. Incidents in which the identity of the target and the state where the incident occurred are different are included in this model. The positive and significant effect of scarring torture remains consistent in this model.