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Ursula E. Daxecker and Michael L. Hess

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## **Repression Hurts: Coercive Government Responses and the Demise of Terrorist Campaigns**

URSULA E. DAXECKER\* AND MICHAEL L. HESS

The question of how coercive government policies affect the duration and outcome of terrorist campaigns has only recently started to attract scholarly interest. This article argues that the effect of repression on terrorist group dynamics is conditional on the country's regime type. Repression is expected to produce a backlash effect in democracies, subsequently lengthening the duration of terrorist organizations and lowering the probability of outcomes favourable to the government. In authoritarian regimes, however, coercive strategies are expected to deter groups' engagement in terrorism, thus reducing the lifespan of terrorist groups and increasing the likelihood of government success. These hypotheses are examined using data on terrorist groups for the 1976–2006 period; support is found for these conjectures on terrorist group duration and outcomes.

But then Bloody Sunday happened and again this incredible sense of outrage ... And following along Bloody Sunday I decided that what I was doing ... was wanting to go home more and more. And as soon as I came home, I got into Sinn Fein, and it was a natural progression from there. Because my beliefs were fairly well formulated at the time. The British were killing our people, they were locking them up, and they were nothing more than Stormont.<sup>1</sup>

### INTRODUCTION

What explains why and how terrorist groups decide to end their campaigns? The factors influencing the duration and outcomes of terrorist campaigns have only recently started to attract the attention of terrorism researchers. This article argues that government repression undermines terrorist groups in non-democratic regimes, but is counterproductive in democracies because it leads to a backlash against the government and more durable terrorist organizations. In democracies, harsh government responses harm the regime's legitimacy and thus reduce co-operation from local communities, increase recruitment and support for terrorist organizations, and erode popular support for the government. Conversely, authoritarian regimes are less constrained by legitimacy considerations in their counter-terrorism efforts, and their repressive measures can thus reduce the lifespan of terrorist groups in non-democratic regimes.

\* Department of Political Science, University of Amsterdam (email: u.daxecker@uva.nl); Department of Political Science, University of New Mexico. The authors would like to thank Kristian Gleditsch, Victor Asal and three anonymous reviewers for their exceptionally helpful comments. An online appendix for this article is available at <http://dx.doi.org/10.1017/S00071234> and <http://ursuladaxecker.weebly.com/research.html>. Data and supporting materials to reproduce the numerical results are available at <http://dvn.iq.harvard.edu/dvn/dv/ued>.

<sup>1</sup> A former IRA member describing his decision to join the organization, as quoted in Robert W. White, 'From Peaceful Protest to Guerrilla War: Micromobilization of the Provisional Irish Republican Army', *American Journal of Sociology*, 94 (1989), 1277–302, p. 1292.

The British government's response to escalating terrorist violence in Northern Ireland in the late 1960s, for example, was characterized by harsh repressive measures. Interventions included internment without trial, criminalization of terrorism suspects, coercive interrogation, curfews, extensive search operations and military deployment.<sup>2</sup> The adoption of repressive counter-terrorism policies increased Catholics' distrust in the government and resulted in a wave of recruitment for the Irish Republican Army (IRA).<sup>3</sup> When British counter-terrorism policy gradually shifted from suppression to accommodation in the 1980s, Catholics started to believe that reform in Northern Ireland was possible, which opened the door for peace negotiations.<sup>4</sup> A series of ceasefires negotiated with paramilitary forces culminated in the Good Friday Accords in 1998.

This example illustrates our claim that coercive responses to terrorism tend to be counterproductive in democracies. Our article contributes to terrorism research in several ways. First, our explanation of why the effects of repression on terrorist organizations differ between democratic and non-democratic regimes helps reconcile the contradictory findings in existing studies. Secondly, our study evaluates the effects of repression on terrorist campaign outcomes, including government victory, settlement, group victory and splinters. Our findings for campaign outcomes demonstrate that repression in democracies is counterproductive: coercion reduces the probability of negotiated settlements, but increases the likelihood of group victory. Thirdly, our empirical analysis controls for both group- and state-level characteristics, thus improving on earlier studies that lacked information on terrorist groups.

The article first reviews the existing research on terrorist group duration and outcomes. The next section develops our theoretical argument, which expects the effects of repression on terrorist group termination and campaign outcomes to be conditional on states' regime type. The argument is tested using data on terrorist groups provided by Jones and Libicki.<sup>5</sup> The results support many of our expectations and are robust to a number of different model specifications.

#### THE DURATION OF TERRORIST CAMPAIGNS

While past research has significantly increased our understanding of the formation of terrorist groups, the dynamics of terrorist attacks and target selection, and state responses to terrorism, scholars have only recently started to pay attention to the question of why and how terrorist campaigns end. Case study assessments of particular groups dominated research on the subject until a recent increase in systematic evaluations.<sup>6</sup> One strand of

<sup>2</sup> Gary LaFree, Laura Dugan and Raven Korte, 'The Impact of British Counterterrorist Strategies on Political Violence in Northern Ireland: Comparing Deterrence and Backlash Models', *Criminology*, 47 (2009), 17–45; Ignacio Sanchez-Cuenca and Luis de la Calle, 'Domestic Terrorism: The Hidden Side of Political Violence', *Annual Review of Political Science*, 12 (2009), 31–49.

<sup>3</sup> White, 'From Peaceful Protest to Guerrilla War'.

<sup>4</sup> Adrian Guelke, 'The Northern Ireland Peace Process and the War Against Terrorism: Conflicting Conceptions?', *Government and Opposition*, 42 (2007), 272–91.

<sup>5</sup> Seth G. Jones and Martin C. Libicki, *How Terrorist Groups End: Lessons for Countering Al Qaeda* (Santa Monica: Rand Corporation, 2008).

<sup>6</sup> Jones and Libicki, *How Terrorist Groups End*; S. Brock Blomberg, Rozlyn C. Engel and Reid Sawyer, 'On the Duration and Sustainability of Transnational Terrorist Organizations', *Journal of Conflict Resolution*, 54 (2009), 303–30; S. Brock Blomberg, Khusrav Gaibulloev and Todd Sandler, 'Terrorist Group Survival: Ideology, Tactics, and Base of Operations', *Public Choice*, 149 (2011), 441–63; Audrey Kurth Cronin, *How Terrorism Ends: Understanding the Decline and Demise of Terrorist*

research focuses on how the characteristics of terrorist groups are related to group disengagement.<sup>7</sup> Findings show that religious groups have longer durations than leftist, right-wing or nationalist organizations.<sup>8</sup> In addition, group strength – measured as the size of terrorist groups – has been shown to increase the lifespan of terrorist groups.<sup>9</sup> No clear findings have emerged with regard to the breadth of terrorists' goals.<sup>10</sup>

A second strand in the literature emphasizes the relevance of state characteristics and state responses for explaining the duration of terrorist groups. Research has not produced conclusive findings on the effect of regime type on group duration. Blomberg et al. do not find a consistent relationship between groups operating in democratic countries and group termination, whereas Jones and Libicki and Young and Dugan find no association between democracy and group termination.<sup>11</sup> With regard to repression, no research has systematically evaluated the effect of coercive government responses on group termination.<sup>12</sup> Case study research on the effect of repression on individual terrorist groups has produced contradictory findings. Studies of groups in Northern Ireland, Italy, Germany and Israel show that the use of repressive policies backfired and exacerbated the growth, intensity and duration of terrorist campaigns.<sup>13</sup> However, analyses of cases in

(*Note continued*)

*Campaigns* (Princeton: Princeton University Press, 2009); Joseph K. Young and Laura Dugan, 'Why Do Terrorist Groups Endure?', paper presented at the Annual Meeting of the International Studies Association, New Orleans, 2008. Since none of the systematic studies evaluate the outcomes of terrorist campaigns, we can only review insights on terrorist group duration.

<sup>7</sup> Only studies by Jones and Libicki and Blomberg, Gaibulloev and Sandler account for group-level characteristics. Yet Jones and Libicki's regression analysis may be biased because their empirical analysis includes only groups that ended their campaigns within their time frame. Blomberg et al. is the only systematic study that controls for group characteristics. Jones and Libicki, *How Terrorist Groups End*; Blomberg, Gaibulloev and Sandler, 'Terrorist Group Survival'.

<sup>8</sup> Blomberg, Gaibulloev and Sandler, 'Terrorist Group Survival'.

<sup>9</sup> Jones and Libicki, *How Terrorist Groups End*; Blomberg, Gaibulloev and Sandler, 'Terrorist Group Survival'.

<sup>10</sup> Jones and Libicki, *How Terrorist Groups End*.

<sup>11</sup> Blomberg, Engel and Sawyer, 'On the Duration and Sustainability of Transnational Terrorist Organizations'; Jones and Libicki, *How Terrorist Groups End*; Young and Dugan, 'Why Do Terrorist Groups Endure?'.

<sup>12</sup> None of the systematic studies discussed include variables for government repression. While not focused on group duration, systematic research exists for the relationship between repression and terrorist events, and repression and dissent, respectively. Research by Kurrild-Klitgaard, Justensen and Klemmensen finds a curvilinear relationship between respect for human rights and terrorist activity. See Peter Kurrild-Klitgaard, Mogens Justesen and Robert Klemmensen, 'The Political Economy of Freedom, Democracy and Transnational Terrorism', *Public Choice*, 128 (2006), 289–315. Yet research by Abrahms and Walsh and Piazza concludes that respect for human rights reduces terrorism. See Max Abrahms, 'Why Democracies Make Superior Counterterrorists', *Security Studies*, 16 (2007), 223–53; James I. Walsh and James A. Piazza, 'Why Respecting Physical Integrity Rights Reduces Terrorism', *Comparative Political Studies*, 43 (2010), 551–77. Research on repression and dissent has produced mixed findings of a negative, positive, curvilinear or no relationship. For a review, see Christian Davenport, 'State Repression and Political Order', *Annual Review of Political Science*, 10 (2007), 1–23.

<sup>13</sup> Sanchez-Cuenca and de la Calle, 'Domestic Terrorism'; LaFree, Dugan and Korte, 'The Impact of British Counterterrorist Strategies on Political Violence in Northern Ireland'; Donatella Della Porta, 'Leaving Underground Organizations: A Sociological Analysis of the Italian Case', in Tore Bjorgo and John Horgan, eds, *Leaving Terrorism Behind: Individual and Collective Disengagement* (New York: Routledge, 2009), pp. 66–88; Tom Parker, 'Fighting an Antaeon Enemy: How Democratic States Unintentionally Sustain the Terrorist Movements They Oppose', *Terrorism and Political Violence*, 19 (2007), 155–79.

Egypt, Argentina, Uruguay and a set of Middle Eastern countries indicate that coercive government responses can successfully terminate terrorist groups.<sup>14</sup> Consequently, repression seemingly exacerbates the intensity and duration of terrorist groups in some cases, but contributes to their decline in others. The theoretical argument developed below helps account for these contradictory findings.

#### REPRESSION, REGIME TYPE AND DISENGAGEMENT FROM TERRORISM

Our argument maintains that the effect of coercion on group duration and outcomes depends on whether repressive measures alter governments' legitimacy.<sup>15</sup> Similar to earlier research, we conceptualize terrorism as a competition over popular support and legitimacy between the government and the terrorist group, but expect that the outcome of this battle is conditional on the importance of legitimacy considerations for the regime in power.<sup>16</sup> Political regimes vary considerably in the extent to which they depend on the support of the public at large. We therefore anticipate that repression leads to backlash effects (that is, lengthens the duration of terrorist groups) in regimes that depend on the perceived legitimacy of their actions, such as democracies. Conversely, in regimes that rely less on popular support, such as authoritarian regimes, coercion is expected to produce deterrence effects (that is, reduce the duration of terrorist groups).<sup>17</sup>

#### *Repression and Terrorist Group Duration in Democracies*

We expect that adopting harsh techniques in response to terrorist events results in backlash effects in democracies. While repressive measures are intended to weaken a terrorist group and compromise its security, such strategies likely backfire in regimes that derive their support from the guarantee of civil rights and liberties. Since the existence of

<sup>14</sup> Diaa Rashwan, 'The Renunciation of Violence by Egyptian Jihadi Organizations', in Bjorgo and Horgan, *Leaving Terrorism Behind*, pp. 113–33; Howard Handelman, 'Labor-Industrial Conflict and the Collapse of Uruguayan Democracy', *Journal of Interamerican Studies and World Affairs*, 23 (1981), 371–94; Paul H. Lewis, *Authoritarian Regimes in Latin America: Dictators, Despots, and Tyrants* (Oxford, UK: Rowman & Littlefield, 2006); Abdelaziz Testas, 'Determinants of Terrorism in the Muslim World: An Empirical Cross-Sectional Analysis', *Terrorism and Political Violence*, 16 (2004), 253–73. However, Testas uses the incidence of terrorist attacks as the dependent variable and measures repression with data from Freedom House, which is typically used to measure democracy.

<sup>15</sup> We evaluate the possible implications of our argument on terrorist group activity in the robustness test and find support for our main contention when using terrorist events as the dependent variable. We believe that a focus on duration is more helpful, since a temporary increase or decline in attacks as a result of repression cannot tell us whether government coercion contributed to the eventual decline of terrorist groups.

<sup>16</sup> For theoretical arguments, see Ethan Bueno de Mesquita and Eric S. Dickson, 'The Propaganda of the Deed: Terrorism, Counterterrorism, and Mobilization', *American Journal of Political Science*, 51 (2007), 364–81; Andrew Kydd and Barbara F. Walter, 'The Strategies of Terrorism', *International Security*, 31 (2006), 49–79; Peter B. Rosendorff and Todd Sandler, 'Too Much of A Good Thing? The Proactive Response Dilemma', *Journal of Conflict Resolution* 48 (2004), 657–71, p. 658. Walsh and Piazza's empirical analysis finds that disregard for physical integrity rights increases the incidence of terrorist attacks, but their study does not evaluate whether the effect of repression on terrorist events is conditional on regime type. Yet the effect of such policies on popular support for the government seems arguably more relevant in regimes that depend on such support. Walsh and Piazza, 'Why Respecting Physical Integrity Rights Reduces Terrorism'.

<sup>17</sup> We borrow the terms backlash effects and deterrence effects from LaFree, Dugan and Korte, 'The Impact of British Counterterrorist Strategies on Political Violence in Northern Ireland'.

civil rights and liberties is widely accepted in democracies, harsh government responses to terrorism – such as holding suspects without charging them, assassinating suspected terrorists, curbing civil freedoms or imposing retribution on alleged sponsors – thus contradict the fundamental values of such regimes. As Crenshaw points out, governments risk becoming ‘the victims of their own stereotype of terrorism as responsive only to force’.<sup>18</sup> Consequently, government crackdowns on extremists, and accompanying policies that limit political freedoms and rights, undermine the government’s legitimacy and can increase support for terrorist groups, facilitate terrorist recruitment, and prolong the lifespan of terrorist groups.<sup>19</sup>

Such backlashes are particularly likely if counter-terrorist measures do not discriminate between supporters of terrorist organizations and innocent citizens.<sup>20</sup> Proactive measures may thus increase popular sympathies for terrorist groups’ grievances, and could even boost terrorist recruitment. As Rosendorff and Sandler point out, coercive tactics ‘may have a downside by creating more grievances in reaction to heavy-handed tactics or unintended collateral damage’.<sup>21</sup> We propose three mechanisms to explain why elites in democracies experience backlash effects.<sup>22</sup>

First, we argue that the use of harsh policies reduces local communities’ co-operation with government authorities. Since terrorism is a relatively rare and dispersed form of violence, effective counter-terrorism policing depends on complete, accurate and well-timed information from local communities.<sup>23</sup> However, intrusive government actions in

<sup>18</sup> Martha Crenshaw, ‘How Terrorism Declines’, *Terrorism and Political Violence*, 3 (1991), 69–87, p. 74.

<sup>19</sup> T. David Mason and Dale A. Krane, ‘The Political Economy of Death Squads: Toward a Theory of the Impact of State-Sanctioned Terror’, *International Studies Quarterly*, 33 (1989), 175–98; Bueno de Mesquita and Dickson, ‘The Propaganda of the Deed’; Walsh and Piazza, ‘Why Respecting Physical Integrity Rights Reduces Terrorism’.

<sup>20</sup> Consequently, we hypothesize that only indiscriminate forms of repression would have the expected effect on group termination in democracies. Ideally, our empirical test would allow for an explicit distinction between selective and indiscriminate forms of repression, but no such data are available cross-nationally. The empirical analysis uses data from the PTS by Gibney, Cornett and Wood and the CIRI data by Cingranelli and Richards to measure repression. While neither of these sources explicitly distinguishes between selective and indiscriminate forms, high levels of state repression in both data sources indicate that repression is widespread and that there is little to no regard for physical integrity rights. For example, the PTS data specify that civil and political rights violations such as disappearances, murder or imprisonment have expanded to large parts of the population in countries with repression scores of 4, and to the whole population for countries with scores of 5. High levels of repression thus likely approximate conditions in which the state applies repression indiscriminately. See Mark Gibney, L. Cornett and Reed Wood, ‘Political Terror Scale 1976–2006’, available at <http://www.politicalterror scale.org/>; David L. Cingranelli and David L. Richards, ‘The Cingranelli-Richards (CIRI) Human Rights Dataset’, available at <http://ciri.binghamton.edu/>.

<sup>21</sup> Rosendorff and Sandler, ‘Too Much of A Good Thing?’, p. 658.

<sup>22</sup> The argument raises the question of why democracies would use repressive strategies in the first place. Research by Bueno de Mesquita and Kydd and Walter suggests one possible explanation. The authors argue that democracies may have to resort to more public and less discriminatory practices when engaging in counterterrorism. Democratic governments are under pressure to ‘do something’ in response to terrorist violence, and less visible strategies can create the perception that the government is not protecting the population. See Ethan Bueno de Mesquita, ‘The Quality of Terror’, *American Journal of Political Science*, 49 (2005), 515–30; Kydd and Walter, ‘The Strategies of Terrorism’.

<sup>23</sup> Richard Posner, *Countering Terrorism: Blurred Focus, Halting Step* (Lanham, Md.: Rowman & Littlefield, 2007); Tom R. Tyler, Stephen Schulhofer and Aziz Z. Huq, ‘Legitimacy and Deterrence Effects in Counterterrorism Policing: A Study of Muslim Americans’, *Law & Society Review*, 44 (2009), 365–402.

response to terrorist threats can undermine government legitimacy and estrange local communities from government authorities.<sup>24</sup> Hence, government responses that are perceived as harsh and excessive can lead individuals to withhold information out of fear of unfair treatment. Surveys of Muslims in the United States and the United Kingdom show that their willingness to alert the police to threats is ‘negatively affected by the belief that Muslims are subject to discrimination’.<sup>25</sup> Research has also documented that perceptions of intrusive police tactics against Muslim Americans can reduce non-Muslims’ perceptions of the police as legitimate.<sup>26</sup>

Secondly, harsh counter-terrorism policies can increase popular sympathy for the group’s cause and subsequently spur recruitment for terrorist organizations in democratic regimes.<sup>27</sup> Coercive responses that undermine a government’s legitimacy can thus increase: overall support for a terrorist group, the number of potential recruits and the resources available to the group.<sup>28</sup> Accounts of the escalation of violence in several democracies illustrate this dynamic. Several studies of the Northern Ireland conflict emphasize that coercive government measures in the 1970s helped drive the growth and intensity of the IRA during this period.<sup>29</sup> Similarly, Della Porta’s analysis of counter-terrorism in Italy emphasizes how hard-line policies can produce counterproductive results by ‘stiffening individuals as regards their own choices and increasing solidarity outside’.<sup>30</sup> In addition, harsh government tactics against terrorism in Israel have reportedly resulted in a large number of civilian casualties, which can fuel the cycle of violence by mobilizing new supporters and strengthening the motivation of group members.<sup>31</sup>

Thirdly, we expect that democratic states’ use of repression will jeopardize their ability to combat terrorism more generally. Democratic leaders are accountable to the public and can be removed from office if their counter-terrorism policies are perceived as unnecessarily harsh and excessive. The use of coercive measures undermines the values that democratic regimes represent, and can thus threaten the survival of leaders. Leadership turnover may result in changes to counter-terrorism policies that can subsequently reduce the government’s effectiveness in combating terrorist groups.<sup>32</sup> Moreover, simply being

<sup>24</sup> Laura K. Donohue, *The Cost of Counterterrorism: Power, Politics, and Liberty* (Cambridge: Cambridge University Press, 2008).

<sup>25</sup> Tyler, Schulhofer and Huq, ‘Legitimacy and Deterrence Effects in Counterterrorism Policing’, p. 380.

<sup>26</sup> Aziz Z. Huq, Tom R. Tyler and Stephen J. Schulhofer, ‘Why Does the Public Cooperate With Law Enforcement? The Influence of the Targets and Purposes of Policing’, *Psychology, Public Policy, and Law*, 17 (2011), 419–50, pp. 429–31.

<sup>27</sup> Gary LaFree and Gary Ackerman, ‘The Empirical Study of Terrorism: Social and Legal Research’, *Annual Review of Law and Social Science*, 5 (2009), 347–74.

<sup>28</sup> Abrahms, ‘Why Democracies Make Superior Counterterrorists’; LaFree and Ackerman, ‘The Empirical Study of Terrorism’; Walsh and Piazza, ‘Why Respecting Physical Integrity Rights Reduces Terrorism’.

<sup>29</sup> See Sanchez-Cuenca and de la Calle, ‘Domestic Terrorism’, p. 42; LaFree, Dugan and Korte, ‘The Impact of British Counterterrorist Strategies on Political Violence in Northern Ireland’.

<sup>30</sup> Della Porta, ‘Leaving Underground Organizations’, p. 84.

<sup>31</sup> The Israeli response to terrorist activity is widely seen as more aggressive than most modern democracies. See Parker, ‘Fighting an Antaeon Enemy’, p. 163.

<sup>32</sup> While we are not aware of research that systematically evaluates the effect of repression on leadership removal, Iqbal and Zorn’s analysis of leader assassinations shows that repression increases the risk of assassination in open-selection systems (that is, democracies) with weak executives. Zaryab Iqbal and Christopher Zorn, ‘Sic Semper Tyrannis? Power, Repression, and Assassination Since the Second World War’, *Journal of Politics*, 68 (2006), 489–501.

threatened with removal can produce inconsistent counter-terrorism policies, since democratic leaders may decide to 'change policies midstream' to avert popular criticism.<sup>33</sup> In addition, Walsh and Piazza maintain that opposition parties will try to gain political capital by criticizing counter-terrorism policies, which will likely reduce the overall resources devoted to counter-terrorism.<sup>34</sup>

### *Repression and Terrorist Group Duration in Non-Democratic Regimes*

We expect that coercive government action can successfully deter terrorist group survival in non-democratic regimes, because authoritarian leaders are less dependent on whether their counter-terrorism policies are perceived as legitimate.<sup>35</sup> First, we do not expect repression to deter public co-operation in authoritarian regimes. Since repression is more common in non-democratic regimes, government legitimacy is already low. Research in the criminology literature shows that legitimacy becomes largely irrelevant for public co-operation when governmental abuse is considered an inevitable fact of life.<sup>36</sup> Compliance in authoritarian regimes is thus likely to be driven by fear of punishment rather than legitimacy, so coercive counter-terrorism strategies are unlikely to further reduce community co-operation with the government.

Secondly, we anticipate that repressive measures by authoritarian regimes can successfully depress recruitment for terrorist groups. Gathering information on suspected terrorists and their sympathizers (and detaining them without trial) is unlikely to lead to backlash effects, because authoritarian governments can suppress information about their actions and curtail media reports.

Finally, leaders of authoritarian regimes are not as constrained in their counter-terrorism efforts as their democratic counterparts because they are less dependent on public opinion for remaining in office.<sup>37</sup> Legal and normative constraints are subordinate in authoritarian regimes' responses to anti-government violence.<sup>38</sup> Authoritarian leaders can thus be less concerned with the public's response to repressive counter-terrorism policies or the electoral consequences of such actions.<sup>39</sup>

<sup>33</sup> Walsh and Piazza, 'Why Respecting Physical Integrity Rights Reduces Terrorism', p. 559.

<sup>34</sup> Walsh and Piazza, 'Why Respecting Physical Integrity Rights Reduces Terrorism'.

<sup>35</sup> Our focus on authoritarian regimes as a single category neglects potential variations in the importance of legitimacy considerations across different types of authoritarian regimes. While developing an argument that takes these differences seriously is beyond of the scope of this article, the robustness tests include an exploratory analysis.

<sup>36</sup> Justice Tankebe, 'Public Co-operation With the Police in Ghana: Does Procedural Fairness Matter?' *Criminology*, 47 (2009), 1265–93; Eric G. Lambert, Shanhe Jiang, Mahfuzul I. Khondaker, O. Oko Elechi, David N. Baker and Kasey A. Tucker, 'Policing Views From Around the Globe: An Exploratory Study of the Views of College Students From Bangladesh, Canada, Nigeria, and the United States', *International Criminal Justice Review*, 20 (2010), 22–47. Note that these studies focus on public co-operation with police in general and not terrorism, but their findings should extend to public co-operation in counterterrorism policies.

<sup>37</sup> Kydd and Walter, 'The Strategies of Terrorism'; Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2005).

<sup>38</sup> Goldie Shabad and Francisco José Llera Ramo, 'Political Violence in a Democratic State: Basque Terrorism in Spain', in Martha Crenshaw, ed., *Terrorism in Context* (University Park: Pennsylvania State University Press, 1995), pp. 410–73.

<sup>39</sup> We are not arguing that non-democratic leaders are completely insulated from public opinion and electoral concerns. However, while elections are now held in the vast majority of countries, non-democratic regimes frequently limit or prohibit the participation of opposition candidates and incumbents often manipulate the electoral process.

Therefore our main hypothesis expects the effects of repression on group duration to vary by regime type. Coercive measures in democracies constrain the civil rights and liberties expected by citizens and thus inadvertently increase the resilience of terrorist groups. Conversely, proactive measures are expected to be successful in deterring the use of terrorism and reducing the lifespan of terrorist organizations in non-democratic regimes.

**HYPOTHESIS 1:** Repression reduces the hazard of terrorist group termination in democracies, but increases the hazard of terrorist group termination in non-democratic regimes.

#### REPRESSION, REGIME TYPE AND THE OUTCOME OF TERRORIST CAMPAIGNS

We now turn to the implications of our argument for terrorist campaign outcomes. We distinguish between four main endings for terrorist campaigns: government victory, political settlement, group victory or splintering. Since these outcomes vary in the extent to which they are desirable from the perspective of the government and the terrorist group, evaluating group termination in the aggregate risks masking substantial variation in the influence of repression on these outcomes. We expect that repression makes outcomes favourable to the government less likely in democratic regimes, but more likely in authoritarian regimes.

Government victory and negotiated settlements likely represent the most favourable outcomes for governments. Because we suspect that repression has counterproductive effects in democracies, we anticipate that its use will reduce the likelihood of such outcomes in democracies. Conversely, because harsh government responses are not expected to harm the government's counter-terrorism efforts in authoritarian regimes, we expect that repression will increase the chance of government victory or settlement in these regimes.

**HYPOTHESIS 2:** Repression reduces the hazard of government victory or political settlement in democracies, but increases the hazard of government victory or political settlement in non-democratic regimes.

A victorious terrorist group is likely the least desirable outcome from the perspective of the government. The logical implication of our argument thus suggests the opposite expectation for campaigns ending with a group victory.<sup>40</sup> We expect that repression will increase the likelihood of group victory in democracies because of backlash effects, but reduce the probability of group victory in non-democratic regimes.

**HYPOTHESIS 3:** Repression increases the hazard of group victory in democracies, but decreases the hazard of group victory in non-democratic regimes.

The final possible outcome is terrorist campaigns that break up or splinter. The implications of our argument are most ambiguous with regard to splinters, especially since splintering might be a favourable outcome for the government in some cases but unfavourable in others. In some instances, splintering could be the result of successful government pressure if extremist elements break apart because moderate group members switch to nonviolent tactics. Yet in other cases, splinter groups could continue using

<sup>40</sup> Cases of group success are empirically rare. Of all groups that ended their campaigns in our data, only 6.6 per cent of cases resulted in a group victory.

terrorist tactics to undermine negotiations with the government.<sup>41</sup> Consequently, it is unlikely that repression and regime type have systematic effects on splintering. Therefore we do not develop expectations on the likelihood of splintering.

## EMPIRICAL ANALYSIS

### *Data*

We evaluate our theoretical arguments in a statistical analysis of 539 terrorist groups in eighty-five countries for the 1976–2006 period.<sup>42</sup> We use data on terrorist organizations collected by the RAND-MIPT project and presented in Jones and Libicki. Our unit of analysis is the group-year; the last year of observation is 2006 (or earlier, if the group terminated prior to that date). The data include terrorist organizations that carried out international incidents before 1998 and organizations that carried out international or domestic incidents from 1998–2006. We include terrorist groups engaging in both domestic and transnational terrorism for several reasons. First, Jones and Libicki identify the host country (the country in which groups base their operations) rather than the target country (the country experiencing the violence) for terrorist organizations carrying out international incidents.<sup>43</sup> Our empirical analysis investigates how government responses in the host country (in which groups base their operations) affect group duration, rather than government responses in the country that is targeted. Secondly, the RAND-MIPT database's definition of international terrorism includes many incidents committed by groups to which our theoretical argument should apply rather straightforwardly. Terrorist events are defined as international if terrorists go abroad to strike their targets, select victims or targets with foreign connections or attack airlines' personnel or equipment.<sup>44</sup> For attacks that occur within a host country and are thus in the natural environment of the group (the second and third categories of international terrorism), responses from that government should clearly be relevant for group duration. For example, the data include groups such as

<sup>41</sup> Moreover, splintering could be the result of competition among different groups within the same state, and thus be the result of groups competing over material resources and popular support rather than the government's actions. See Kydd and Walter, 'The Strategies of Terrorism'. The proliferation of terrorist groups in Pakistan is an example of such a dynamic.

<sup>42</sup> Jones and Libicki provide a list of all terrorist organizations and group attributes in their appendix. The data cover 648 terrorist groups between 1968 and 2006 and provide start and end dates for all groups, including those that did not terminate their campaigns by 2006. The RAND-MIPT data used to create their list of terrorist groups is available at <http://www.rand.org/nsrd/projects/terrorism-incidents.html>. Jones and Libicki include a few terrorist groups in colonies that were active before the country's independence, such as the Armed Revolutionary Action group in Mozambique. We excluded such groups from the analysis until states achieved independence. Data limitations on the repression variable limit our time frame to the 1976–2006 period. Jones and Libicki, *How Terrorist Groups End*, pp. 142–86.

<sup>43</sup> Jones and Libicki identify a single host country for 430 of 539 groups in our sample. See Jones and Libicki, *How Terrorist Groups End*. For the remaining 109 groups, two or more states are identified as host countries. To identify the primary host for these groups, we consulted the list of terrorist groups provided by the Terrorism Knowledge Base (TKB), which formed the basis of the data on terrorist groups included in RAND-MIPT. The TKB provides a narrative of each group's evolution and frequently refers to the country in which groups organize the majority of their operations. The TKB data are available online at [http://www.start.umd.edu/start/data\\_collections/tops](http://www.start.umd.edu/start/data_collections/tops). For groups without additional information, we consulted the RAND-MIPT data to determine the country in which groups carried out the majority of their attacks.

<sup>44</sup> Bruce Hoffman, 'The Confluence of International and Domestic Trends in Terrorism', *Terrorism and Political Violence*, 9 (1997), 1–15.

TABLE 1 *Terrorist Campaign Outcomes, 1976–2006*

| Variables            | N   | %     |
|----------------------|-----|-------|
| Government victory   | 101 | 31.37 |
| Political settlement | 94  | 29.19 |
| Group victory        | 21  | 6.52  |
| Splinter             | 106 | 32.92 |
| Total                | 322 | 100   |

the African National Congress (ANC) because it engaged in attacks against international corporations in South Africa, yet the ANC's goal was arguably to establish racial equality in South Africa. Finally, we think our argument may also apply to groups that target internationally. While repressive government measures may not be aimed at groups that carry out attacks in other countries, coercion that affects large parts of the population would likely also affect the capabilities of such groups.<sup>45</sup> A robustness test excluding groups that target internationally is presented in the online appendix and shows support for our main contention.

### *Dependent Variables*

The first dependent variable is used to evaluate our hypothesis on group termination. It is a dummy variable coded 0 for each year that a particular group was in operation, and 1 for the year in which the group terminated. Groups still active in 2006 were coded as 0 in the last year of observation. Of the 539 groups studied, 322 groups ended their campaigns during 1976–2006. Data on start and end dates of terrorist organizations come from Jones and Libicki.<sup>46</sup> Jones and Libicki used the following criteria to code the beginning and end of terrorist campaigns:

The start year of a terrorist group was assigned based on first indication that the group existed and was dedicated to the use of violence. The end year of a terrorist group was assigned based on earliest evidence that the group no longer used terrorism to achieve its goals. This may be because security forces captured and killed most of its members, the group reached a peace agreement with the government, its members shifted to nonviolent means to achieve their goals, or its members splintered to join other groups or start new ones. Regardless of the reason, the group did not commit further terrorist attacks under its name.<sup>47</sup>

Jones and Libicki provide information on how terrorist campaigns end, which we used to create four additional dependent variables to examine the outcome of terrorist campaigns: government victory, political settlement, group victory and splintering.<sup>48</sup> Table 1 presents the distribution of terrorist campaign outcomes for the 322 groups that

<sup>45</sup> Moreover, it is possible that such groups simultaneously engage in domestic attacks, since the two types of attacks are not mutually exclusive. The frequency with which groups target both domestically and across borders should ultimately be an empirical question, but we are not aware of research that addresses this question.

<sup>46</sup> While Jones and Libicki's empirical analysis excludes ongoing campaigns, their appendix provides information on groups that have not terminated. Jones and Libicki, *How Terrorist Groups End*.

<sup>47</sup> Jones and Libicki, *How Terrorist Groups End*, p. 5.

<sup>48</sup> Jones and Libicki's categories are very similar to ours, but the authors further separate government victory into 'victory through policing' and 'victory through military force'. Since terrorist groups that end

ended their campaigns in the period under analysis. The table shows that splinters, government victory and settlement are approximately equally common, whereas group victory is by far the least likely outcome of terrorist campaigns.

### *Independent Variables*

The data provided in Jones and Libicki include information on a number of group characteristics that we append with state-level characteristics, described in more detail below.<sup>49</sup> The first independent variable measures the level of repression in states. Data for this variable were obtained from the Political Terror Scale (PTS).<sup>50</sup> The variable is coded 1 through 5, ranging from least repressive to most repressive.<sup>51</sup> The second key independent variable measures how democratic countries are; it is taken from the Polity IV Project data.<sup>52</sup> The scale for this variable ranges from -10 (fully authoritarian) to +10 (fully democratic).<sup>53</sup> To model the interaction between repression and regime type outlined in the first hypothesis, we create an interaction variable by multiplying the repression and democracy variables.<sup>54</sup>

Additional variables control for other group and state characteristics that likely affect group termination. Data for all group characteristics come from Jones and Libicki.<sup>55</sup> First, group size has been shown to affect the likelihood of group termination in previous research: larger groups have greater longevity. The measure of the size of the terrorist

*(Footnote continued)*

because of policing and military force represent an achievement of the government's goals, we collapse these two categories. Jones and Libicki, *How Terrorist Groups End*.

<sup>49</sup> Jones and Libicki, *How Terrorist Groups End*, pp. 142–85.

<sup>50</sup> Gibney, Cornett and Wood, 'Political Terror Scale 1976–2006'.

<sup>51</sup> A score of 1 indicates that a country is under a secure rule of law, people are not imprisoned for their views, torture is rare or exceptional, and political murders are extremely rare. Countries that have a limited amount of imprisonment for nonviolent political activity were rated as a 2. Those with extensive political imprisonment, common executions or political murders and brutality, and unlimited detention for political views receive a score of 3 on the PTS. A rating of 4 indicates that a country violates the political and civil rights of a large portion of the population and that murder, disappearances and torture are a common part of life, especially for those who interest themselves in politics and ideas. Finally, a rating of 5 indicates that terror has expanded to the entire population of the country, and the leaders are not limited in the way they pursue personal or ideological goals. The PTS data provide scores for both Amnesty International and US State Department rankings; we average the two scores, meaning that the repression variable can take empirical values of 1, 1.5, 2, 2.5 and so forth.

<sup>52</sup> Monty G. Marshall and Keith Jagers, 'Polity IV Project: Political Regime Characteristics and Transitions, 1800–2007', available at <http://www.systemicpeace.org/polity/polity4.htm>.

<sup>53</sup> Of all countries in the data, 68 per cent are democracies with polity scores of 6 or higher.

<sup>54</sup> One might object that findings based on this interaction are the result of a small number of cases, since repression and democracy likely co-vary. While we do not dispute that democracies, on average, have lower levels of repression than non-democratic regimes, numerous case studies document the use of coercive strategies in democracies. Moreover, a cross-tabulation of the repression and polity variables showed that 30 per cent of all democracies with polity scores of 6 or greater score 4 or higher on the repression variable. When only highly democratic countries (polity scores of 8 or greater) are included, the percentage of democracies engaging in such levels of repression decreases to 26 per cent. Although research by Davenport and Armstrong suggests that democracies exhibit lower levels of repression only when high levels of democracy are reached, one-fourth of highly democratic states in our data apply high levels of repression. Conversely, 13 per cent of non-democratic regimes have repression levels lower than 3. Christian Davenport and David A. Armstrong, 'Democracy and the Violation of Human Rights', *American Journal of Political Science*, 48 (2004), 538–54.

<sup>55</sup> Jones and Libicki, *How Terrorist Groups End*.

group is an ordinal variable coded 1 for less than 100 people, 2 for 100–999, 3 for 1,000–9,999 and 4 for 10,000 or more.<sup>56</sup>

Secondly, the previous literature also identifies terrorist groups' ideological views as a significant factor that affects group longevity; religious terrorist organizations are more durable than leftist or right-wing groups. We separate the ideology measures from Jones and Libicki into four dummy variables:<sup>57</sup> nationalist groups, religious groups, leftist groups and right-wing groups.<sup>58</sup> In our models, right-wing groups are the excluded category because they were least represented in the data.

Thirdly, we control for the breadth of terrorist goals. This measure is coded as an ordinal variable according to the scope of the groups' goals.<sup>59</sup> A fourth control variable incorporates information about the number of countries in which individual terrorist organizations operate or have bases of support. The foreign presence variable is a dummy coded 0 if the terrorist group is based in only one state and 1 if the group is present in two or more states.

Two additional variables account for other state characteristics. Gross domestic product (GDP) per capita – gathered from the Penn World Tables<sup>60</sup> – serves as our measure of state economic development. Data for population size come from the World Bank's World Development Indicators.<sup>61</sup>

### *Methodology*

We use a Cox proportional hazards model to estimate the hazard of group termination, our first dependent variable. The model allows us to estimate the hazard function by predicting the failure or termination of conflict within a particular time interval. The hazard rate for any observation  $i$  at time  $t$  is given by the function  $h_i(t) = h_0(t) \exp(x_i'\beta)$ , where  $h_0(t)$  is the baseline hazard of the event. In this type of model, hazard rates are only calculated as failures and are not sensitive to distribution issues because the baseline hazard rate cancels out when the hazard ratio is taken in the event of a failure. We use a stratified Cox model to analyse terrorist campaign outcomes, the second set of dependent variables in our empirical analyses.<sup>62</sup> This model lets us estimate the effect of

<sup>56</sup> This variable does not change over time. While it would be ideal to use a time-varying covariate, no such data are available.

<sup>57</sup> Jones and Libicki, *How Terrorist Groups End*.

<sup>58</sup> Nationalist groups were most represented in our sample, representing 38.2 per cent of cases, followed by leftist groups with 33.4 per cent and religious groups with 23.2 per cent; right-wing groups represented only 5 per cent of all cases.

<sup>59</sup> The variable ranges from 1–6, where lower values indicate that the group's goals are more limited, and greater values represent more extensive goals. Groups are coded as 1 if their goal is to maintain the status quo, 2 if their goal is policy change, 3 if their primary goal is regime change, 4 if their goal is territorial change, 5 if their goal is revolution and 6 if their goal is empire. Since group goals could be correlated with group ideology and such multicollinearity could mask the statistical significance of covariates, we specified separate models excluding the group goal and ideology variables, respectively. The results remained similar to the ones presented here. In addition, correlation matrices for the variables did not show correlations greater than 0.16.

<sup>60</sup> Alan Heston, Robert Summers and Bettina Aten, 'Penn World Table Version 6.3: Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania', available at [http://pwt.econ.upenn.edu/php\\_site/pwt\\_index.php](http://pwt.econ.upenn.edu/php_site/pwt_index.php). The natural log was taken because of high skewness in the data.

<sup>61</sup> Data are available at <http://publications.worldbank.org/WDI/>. The variable was logged in order to achieve a normal distribution.

<sup>62</sup> A Hausman test showed that the outcomes are independent of each other. Results for a multinomial logit model were similar.

covariates on a particular terrorist campaign outcome, rather than estimating the average effect of independent variables across different outcomes.<sup>63</sup>

One restriction imposed on the Cox model is the assumption of proportionality, meaning that the effect of the covariates on the hazard ratio has to be proportional during the lifespan of a terrorist group. Tests of the proportional hazards assumption indicated evidence of non-proportionality for several independent variables, in particular the group size variable.<sup>64</sup> We follow Box-Steffensmeier and Jones' advice and deal with time-varying covariates by interacting such variables with the logarithm of time.<sup>65</sup>

In the following tables for group duration and outcomes, the hazard ratio is a covariate's effect on the baseline hazard of group termination.<sup>66</sup> Hazard ratios smaller than 1 indicate that an independent variable reduces the hazard rate of event occurrence within a specified time interval, and ratios larger than 1 mean that an independent variable increases the hazard rate of event occurrence. The statistical significance of hazard ratios is measured using two-tailed tests, and all models employ robust standard errors.<sup>67</sup>

## DATA ANALYSIS

### *Terrorist Campaign Duration*

Table 2 presents the results for models of terrorist group duration. The first model in Table 2 includes all independent variables except the product term. In this model, findings for the polity variable mirror past studies that found no significant relationship between this indicator and terrorist group termination. Similarly, the hazard ratio for the repression variable is negative but insignificant. Previous large-sample studies have not included a measure for repression, and our findings suggest that repression does not affect group termination independently.

Among the control variables, the coefficient for population is negative and significant, indicating that the larger the population of a particular country, the less likely it is that terrorist groups will terminate. The variable for group size is significant and negative, which indicates that larger groups are less likely to fail. Nationalist terrorist groups are less likely to terminate than right-wing terror groups (the excluded category). With regard to terrorist group goals, we find that groups with more extensive aims are less likely to end their campaigns than groups pursuing less ambitious goals. Coefficients for the GDP per capita variable, leftist groups, religious groups and the variable for a group's foreign presence are not significant.

<sup>63</sup> Janet Box-Steffensmeier and Bradford S. Jones, *Event History Modeling* (Cambridge: Cambridge University Press, 2004).

<sup>64</sup> Tests for non-proportionality produced different results for different models. The group size variable showed time-varying effects in all empirical models that include group characteristics. In addition to group size, the variables measuring democracy, population size, religious groups, nationalist groups and whether a group has a foreign presence showed signs of non-proportionality in some (but not all) models. We include interactions between the logarithm of time and the respective variables for time-varying variables in all models in which tests showed evidence of non-proportionality for respective variables. In order to preserve space, hazard ratios for time-interactions are not presented.

<sup>65</sup> Box-Steffensmeier and Jones, *Event History Modeling*, p. 136.

<sup>66</sup> In competing risk models, subhazard ratios are presented; they represent the effect of covariates on the hazard of the four terrorist campaign outcomes.

<sup>67</sup> We also analysed models with standard errors clustered on the group's host country. Results were similar to the ones presented here.

TABLE 2 *The Determinants of Terrorist Group Termination*

| Variables            | Cox base model      | Cox model with interaction | Weibull model       |
|----------------------|---------------------|----------------------------|---------------------|
|                      | Hazard ratio (S.E.) | Hazard ratio (S.E.)        | Hazard ratio (S.E.) |
| Repression           | 0.963<br>(0.050)    | 1.121<br>(0.101)           | 1.128<br>(0.094)    |
| Polity               | 0.985<br>(0.012)    | 1.074*<br>(0.038)          | 1.081*<br>(0.041)   |
| Repression × polity  | –                   | 0.976**<br>(0.009)         | 0.976*<br>(0.009)   |
| GDP per capita (log) | 1.010<br>(0.075)    | 0.951<br>(0.074)           | 0.963<br>(0.082)    |
| Population (log)     | 0.893**<br>(0.025)  | 0.886**<br>(0.025)         | 0.872**<br>(0.030)  |
| Size                 | 0.283**<br>(0.040)  | 0.287**<br>(0.041)         | 0.449**<br>(0.043)  |
| Leftist              | 0.773<br>(0.129)    | 0.776<br>(0.130)           | 0.774<br>(0.163)    |
| Religious            | 0.685<br>(0.179)    | 0.708<br>(0.183)           | 0.395**<br>(0.112)  |
| Nationalist          | 0.677*<br>(0.119)   | 0.700*<br>(0.122)          | 0.740<br>(0.159)    |
| Goal breadth         | 0.915*<br>(0.035)   | 0.915*<br>(0.035)          | 0.896*<br>(0.044)   |
| Foreign presence     | 0.787<br>(0.148)    | 0.775<br>(0.149)           | 0.967<br>(0.159)    |
| N                    | 4,979               | 4,979                      | 4,979               |
| Wald $\chi^2$        | 157.73              | 172.87                     | 140.21              |

*Note:* Hazard ratios with robust standard errors in parentheses are reported.

\*\* $p < 0.01$ ; \* $p < 0.05$  (two-tailed tests)

The second model in Table 2 includes the interaction term. The hazard ratio is significant and negative ( $z = -2.69$ ), indicating that repression is a counterproductive strategy in democracies because it decreases the risk of terrorist group termination, but increases the hazard of termination in authoritarian regimes. This finding supports Hypothesis 1, which expected that the effect of repression varies with regime type. The results for the control variables are similar to the first model. The third model in Table 2 presents the results for a parametric model with a Weibull hazard function. While the Weibull model is more restrictive than the non-parametric Cox model in assuming that the underlying shape parameter is known, the results show that our findings are robust to alternative estimation techniques.<sup>68</sup> The hazard ratio for the interaction is negative and significant. The control variables are similar to the first two models in Table 2, although we find that religious groups (rather than nationalist groups) are less likely to terminate than right-wing organizations in the Weibull model.

Table 3 presents substantive effects for all models in Table 2. We first discuss substantive effects for the interaction in the Cox model. When the polity variable is set at

<sup>68</sup> Results for other distributional forms – such as the exponential, log-logistic and Gompertz distribution – were similar to the ones reported.

TABLE 3 *The Determinants of Terrorist Group Termination (Substantive Effects)*

| Variables                                  | Cox base model             | Cox model with interaction | Weibull model           |
|--|----------------------------|----------------------------|-------------------------|
|  | Change in hazard rate (%Δ) | Change in hazard rate (%Δ) | Change in duration (%Δ) |
| Repression in democracies <sup>a</sup>     |                            |                            |                         |
| 1.5 (−1SD)                                 | –                          | 0.004                      | 13.5                    |
| 4.5 (+1SD)                                 |                            | 0.003 (−32.7)              | 20.6 (+52.2)            |
| Repression in non-democracies <sup>b</sup> |                            |                            |                         |
| 1.5 (−1SD)                                 | –                          | 0.003                      | 25.5                    |
| 4.5 (+1SD)                                 |                            | 0.005 (+76.2)              | 12.9 (−49.4)            |
| Population (log)                           |                            |                            |                         |
| 15.7 (−1SD)                                | 0.005                      | 0.005                      | 10.9                    |
| 19.7 (+1SD)                                | 0.003 (−36.0)              | 0.003 (−37.8)              | 20.5 (+88.4)            |
| Size                                       |                            |                            |                         |
| 1 (−1SD)                                   | 0.016                      | 0.016                      | 5.4                     |
| 3 (+1SD)                                   | 0.001 (−91.9)              | 0.001 (−91.8)              | 35.6 (+560.6)           |
| Nationalist group                          |                            |                            |                         |
| 0 (min)                                    | 0.004                      | 0.004                      |                         |
| 1 (max)                                    | 0.003 (−32.3)              | 0.003 (−30.0)              | –                       |
| Religious group                            |                            |                            |                         |
| 0 (min)                                    | –                          | –                          | 12.6                    |
| 1 (max)                                    |                            |                            | 37.7 (+198.5)           |
| Goal breadth                               |                            |                            |                         |
| 2 (−1SD)                                   | 0.004                      | 0.004                      | 13.0                    |
| 5 (+1SD)                                   | 0.003 (−23.3)              | 0.003 (−23.3)              | 19.2 (+47.2)            |

<sup>a</sup> Polity is set at 10 (+1 SD from the mean) and repression is varied from 1.5 to 4.5 (±1 SD from the mean) together with the interaction to calculate marginal effects on the hazard rate in democracies.

<sup>b</sup> Polity is set at −3 (−1 SD from the mean), repression is varied from 1.5 to 4.5 (±1 SD) together with the interaction to calculate marginal effects on the hazard rate in non-democracies.

10, the repression variable is varied from 1.5 to 4.5 and the interaction is varied along with the respective values of the constitutive terms, the hazard of group termination decreases by 33 per cent. Conversely, repression increases the likelihood of terrorist group failure in non-democratic regimes. Setting the polity variable at −3, varying the repression variable from 1.5 to 4.5 and varying the interaction along with the respective values of the democracy and repression variables produces a 76 per cent increase in the hazard rate of termination. Substantive effects for the Weibull model are more meaningful to interpret, as they indicate the change in the expected duration of terrorist groups. For democracies, the expected duration of terrorist groups increases from thirteen to twenty-one years if the repression variable and the interaction are varied from 1.5 to 4.5. Conversely, the duration of groups in authoritarian regimes decreases from twenty-five to thirteen years if the repression variable is varied from 1.5 to 4.5, together with the interaction.

Figure 1 is based on the second model in Table 2 and illustrates the effect of repression on the likelihood of failure in democratic and non-democratic states.<sup>69</sup> In this figure, the

<sup>69</sup> We cannot include time-interactions in this model because the command used to create the figure does not allow for their inclusion.

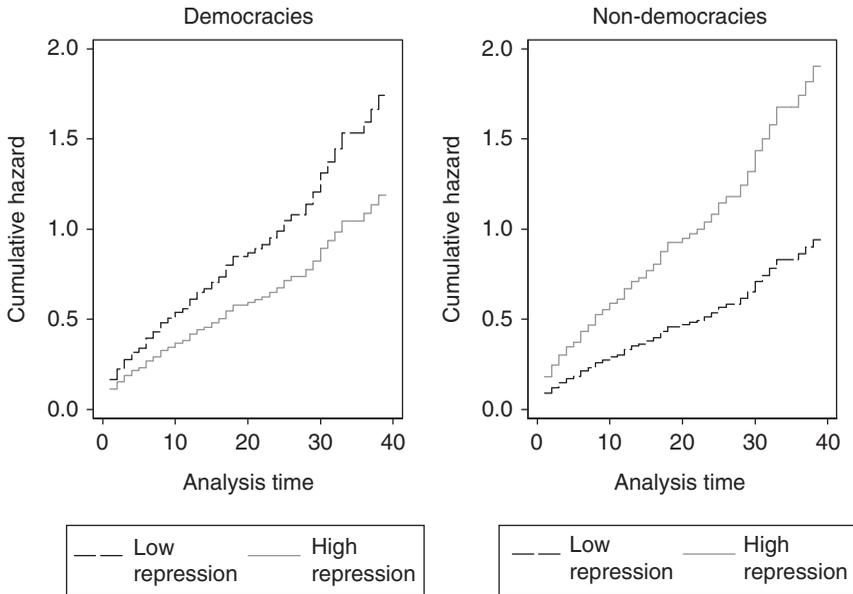


Fig. 1. The effect of repression on terrorist group duration

first graph depicts the effect of repression on group termination when the democracy variable is set at 10 (+1 SD from the mean) and the second graph presents the same effect when the democracy variable is set at  $-3$  ( $-1$  SD from the mean). In both graphs, repression is varied from 1.5 to 4.5 ( $\pm 1$  SD from the mean), and the interaction is varied along with the respective values of the constitutive terms. The first graph in Figure 1 illustrates the effect of repression on group termination in democratic states. High repression in democracies, as represented by the solid line, results in lower rates of termination than low levels of repression, as represented by the dotted trend line. The opposite effect is observed in the second graph shown in Figure 1. For non-democracies, higher repression (solid line) leads to substantially higher cumulative hazard ratios and therefore a greater likelihood of terrorist group termination over time than low repression (dotted line). Taken together, the results presented in Tables 2 and 3 and illustrated in the figure support our expectations.

### *Terrorist Campaign Outcomes*

Next we evaluate how repression and democracy influence the outcome of terrorist campaigns. Two caveats are necessary before we discuss our empirical results presented in Table 4. First, the results for our outcome models are based on a small number of data points, in particular for campaigns ending with a terrorist group victory (an outcome observed in less than 7 per cent of campaigns that ended). Secondly, it may be difficult to determine, in practice, whether an outcome was in fact favourable to the government or the group. A government victory, for example, may come only after a protracted and costly counter-terrorism campaign, such as the Sri Lankan government's defeat of the Tamil Tigers in 2009.

The second hypothesis expects that repression in democracies reduces the likelihood of government victory and settlements, outcomes that are more favourable for governments.

TABLE 4 *The Determinants of Terrorist Campaign Outcomes*

| Variables            | Government victory                     | Settlement                             | Group victory                                      | Splinters                              |
|----------------------|--|--|--|--|
|                      | <i>Hazard ratio</i><br>( <i>S.E.</i> ) | <i>Hazard ratio</i><br>( <i>S.E.</i> ) | <i>Hazard ratio</i><br>( <i>S.E.</i> )             | <i>Hazard ratio</i><br>( <i>S.E.</i> ) |
| Repression           | 0.800<br>(0.169)                       | 1.389†<br>(0.275)                      | 0.437†<br>(0.206)                                  | 1.191<br>(0.205)                       |
| Polity               | 0.985<br>(0.082)                       | 1.158†<br>(0.093)                      | 0.966<br>(0.105)                                   | 1.034<br>(0.074)                       |
| Repression x polity  | 0.983<br>(0.021)                       | 0.961*<br>(0.019)                      | 1.088*<br>(0.042)                                  | 0.983<br>(0.019)                       |
| GDP per capita (log) | 1.021<br>(0.182)                       | 1.077<br>(0.144)                       | 0.665<br>(0.168)                                   | 1.013<br>(0.133)                       |
| Population (log)     | 1.129*<br>(0.067)                      | 0.814**<br>(0.051)                     | 0.715**<br>(0.075)                                 | 0.935<br>(0.041)                       |
| Size                 | 0.320**<br>(0.080)                     | 0.549**<br>(0.100)                     | 0.713<br>(0.314)                                   | 0.262**<br>(0.071)                     |
| Leftist              | 0.922<br>(0.315)                       | 0.568*<br>(0.153)                      | 1.495<br>(1.861)                                   | 2.354<br>(1.428)                       |
| Religious            | 0.689<br>(0.403)                       | 0.050**<br>(0.038)                     | 4.94 <sup>e-08</sup> **<br>(6.56 <sup>e-08</sup> ) | 3.677†<br>(2.464)                      |
| Nationalist          | 0.535†<br>(0.200)                      | 0.362**<br>(0.114)                     | 5.069<br>(6.113)                                   | 3.284†<br>(2.018)                      |
| Goal breadth         | 1.020<br>(0.068)                       | 0.740**<br>(0.070)                     | 0.502**<br>(0.103)                                 | 1.169*<br>(0.086)                      |
| Foreign presence     | 1.139<br>(0.473)                       | 0.546<br>(0.232)                       | 2.206<br>(1.801)                                   | 0.815<br>(0.276)                       |
| <i>N</i>             | 5,013                                  | 5,024                                  | 5,027  | 5,026                                  |
| <i>Wald</i> $\chi^2$ | 71.26                                  | 124.04                                 | 4475.41  | 54.79                                  |

Note: Reported are hazard ratios with robust standard errors in parentheses.

\*\* $p < 0.01$  \* $p < 0.05$  † $p < 0.1$  (two-tailed tests).

We find partial support for this hypothesis. The hazard ratio for the interaction between the repression and polity variables is negative in both the government victory and settlement models, but reaches statistical significance only for terrorist campaigns that resulted in political settlements ( $z = -1.99$ ). While we expected that government coercion would be counterproductive for all outcomes favourable for the government, it is interesting to observe that repression in democracies appears particularly damaging for outcomes in which governments depend on groups' willingness to enter negotiations and come to a mutual agreement. Coercive responses thus appear to be less influential for outcomes in which governments are capable of imposing their preferred outcome.

The model for group victory shows support for Hypothesis 3. The hazard ratio for the interaction is positive and significant ( $z = 2.20$ ), which demonstrates that repressive measures increase the risk of group victory in democracies, but reduce the hazard of group victory in authoritarian regimes. As expected in Hypothesis 3, we find that the effect of coercive responses is reversed for outcomes that are unfavourable for governments. Our findings thus show the importance of distinguishing among different outcomes rather than collapsing all groups that ended their campaigns into a single category. As expected, we do not find a significant relationship between repression and regime type for groups that end in splinters.

Some interesting findings emerge for other covariates in the outcome models. Population size increases the likelihood of a government victory, but reduces the likelihood of settlements or group victories. Findings for the group size variable show that campaigns fought by larger groups are less likely to end with government victories, settlements or splinters, but do not affect the hazard of group victories. Compared to right-wing groups, leftist, religious and nationalist groups are less likely to negotiate settlements to their campaigns. Yet we also find that religious groups are less likely to defeat the government and more likely to splinter. The breadth of groups' goals reduces the hazard of settlement and group victory and increases the hazard of splintering, but has no effect on government victory. We do not find evidence that GDP or foreign bases affect terrorist campaign outcomes.

### *Robustness Tests*

We conducted a large number of additional robustness tests to evaluate whether findings for terrorist group duration are robust to the inclusion of potentially influential observations, additional operationalizations of key independent variables, alternative samples of terrorist organizations and terrorist attacks as the dependent variable. The results for robustness tests are described in detail in the online appendix. Statistical models that exclude splinter groups, groups that target internationally and insurgent groups confirm that repression increases group duration in democracies but lengthens terrorist campaigns in authoritarian regimes. The results also remain consistent when we use Cingranelli and Richards' measure on physical integrity rights.<sup>70</sup> An additional robustness check disaggregates authoritarian regimes and shows that personalist regimes are less susceptible to backlash effects when using repression than other types of authoritarian regimes. We also find that the conditional effects of repression and regime type on group duration are supported for two alternative samples of terrorist groups. Findings using data on terrorist groups from Asal and Rethemeyer and the Global Terrorism Database (GTD) are largely consistent with earlier results.<sup>71</sup> Finally, a robustness check using terrorist attacks from the GTD as the dependent variable demonstrates that the implications of our argument hold for the incidence of terrorism: repression in democracies increases the likelihood of terrorist attacks, but reduces the probability of incidents in authoritarian regimes.

### CONCLUSION

In this article, we argued that the effect of repression on terrorist group termination is conditional on countries' regime type. In democracies, coercive tactics can have counterproductive effects by jeopardizing citizens' perceptions of the government's legitimacy. Coercive government responses in democracies can reduce the public's co-operation with government authorities and increase support for terrorist groups. Yet since coercive measures are unlikely to change the government's perceived legitimacy in

<sup>70</sup> Cingranelli and Richards, 'The Cingranelli-Richards (CIRI) Human Rights Dataset'.

<sup>71</sup> Victor Asal and R. Karl Rethemeyer, 'The Nature of the Beast: Organizational Structures and the Lethality of Terrorist Attacks', *Journal of Politics*, 70 (2008), 437–49. The GTD data are available at <http://www.start.umd.edu/gtd/> and are described in Gary LaFree and Laura Dugan, 'Introducing the Global Terrorism Database', *Terrorism and Political Violence*, 19 (2007), 181–204.

authoritarian regimes, we expect that repression reduces the duration of terrorist campaigns. An empirical analysis of 539 groups for the 1976–2006 period supports our expectations on group duration, and these findings are robust to additional model specifications. Evaluating the implications of our arguments for terrorist campaign outcomes shows that repression decreases the likelihood of negotiated settlements in democracies, but increases the hazard of group victory in democratic regimes.

For policymakers, our research indicates that using coercive, indiscriminate responses to terrorism is counterproductive for democracies; thus limited and selective counter-terrorism strategies have the highest potential for success. Policy implications for non-democratic states are more problematic, since our findings suggest that strong-arm tactics can force terrorist groups to settle their claims. Yet iron-fist strategies can have negative consequences even in non-democratic states, especially in the long run. While repression may successfully end a terrorist campaign in the affected country, it can create an exodus into other states. For example, Chechen rebels fled to surrounding republics in response to the Russian government's hard-line strategy.<sup>72</sup> Indiscriminate repression, while successful against terrorist groups in the short term, may also lead to widespread opposition and eventual rebellion against authoritarian regimes in the long run. For example, the use of repressive tactics in Egypt, while successful in extracting a ceasefire from terrorist organizations such as al-Jama'a al Islamiyya, arguably fueled popular discontent against the regime and may have contributed to Mubarak's overthrow in 2011. Future research is necessary to investigate such possible consequences of repressive counter-terrorism policies in authoritarian states.

<sup>72</sup> Cronin, *How Terrorism Ends*, p. 133.