

### 3 Six feet over

## Internal war, battle deaths and the influence of the living on the dead

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Within the past ten years, there has been an increased amount of attention given to human security – namely, the ability of individuals to remain safe from political violence. Accordingly, researchers, policymakers and activists have spent a great deal of time discussing the diverse ways that the world's population are killed – noting relevant actors, actions, trends and the political-economic circumstances involved.

Unfortunately, however, these efforts have been somewhat imbalanced. For example, most individuals studying conflict-related deaths focus on actions that challenge political authorities (e.g. terrorism, guerrilla warfare and civil war), ignoring the fact that governments can also serve as a threat to human security, employing torture, disappearances, massacres and genocide/politicide. Of course, most are now aware of organizations such as Amnesty International and Human Rights Watch, who do focus on such things and, similarly, many are now aware of state-sponsored political violence in Sudan (Darfur), Rwanda, Kosovo and Abu Ghraib but these are the exceptions. Within academic research, the evidence of skewed prioritization is clear. Perusing social science journals and major presses over the last few years, there has been approximately 80 quantitative analyses of civil and interstate war – respectively, but over the same period of time there have been only a handful of quantitative investigations of genocide/politicide. These differences exist despite the fact that data is readily available on all three types of conflict (at relative degrees of quality) and the fact that the statistical models employ the same explanatory variables.<sup>1</sup>

Such an imbalance in focus has significant implications for research, policymaking, activism and popular levels of awareness/understanding of the problem. Take for example, the debate surrounding conflict “lethality” (i.e. the number of people killed during contentious activities). For several years, scholars have been attempting to understand whether conflict has become more or less lethal over time but the work has been largely inconclusive. For some (e.g. Sarkees *et al.* 2003), the number of fatalities has been relatively stable over the past 50 years, communicating that major political-economic developments such as the growth of democracy and

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globalization have been largely ineffective at reducing lethality. For others (e.g. Lacina *et al.* 2005), the number of victims has decreased, suggesting that “the post-World War II international system embodies a largely successful project of democracy, economic interdependence, and rule-based interstate order” (p. 31).

While this is extremely important work, we believe that the conclusions reached by this research are misleading for they are based on a very specific definition of conflict fatality that does not explicitly consider the victims of *state* action. To understand lethality as well as human security, however, it is critical to consider the full range of actors that engage in relevant behavior. Simply, one must consider the full range of contentious politics undertaken by the living in order to understand the diverse processes of collective mortality (i.e. the dead).<sup>2</sup>

In an effort to address this broader concern with competitively assessing the greatest threats to citizens as well as why these exist, we wed distinct research traditions together and utilize several databases to examine the relative importance of authorities and dissidents in generating fatalities. From our research, we confirm that *governments have produced greater numbers of deaths* and conclude that *political authorities are far more threatening to human life than government challengers*. The research also discloses that although economic development and military expenditures consistently decrease lethality, these influences are non-existent until the highest values of these variables are reached; low to moderate development or expenditures have no influence on the number of individuals killed during conflict. Finally, we find that the importance of some variables, traditionally believed to carry a lot of explanatory weight, are not very important. For example, when one considers deaths from genocide/politicide at the same time with those from interstate and civil war, democracy decreases lethality but the influence of this variable pails in comparison to that wielded by population size.

Below, we discuss the different orientations used to understand human losses during conflict (i.e. battle-deaths). Following this, we use a model, developed by Fearon and Laitin (2003), that focused on civil war to explain fatalities across diverse forms of large-scale conflict (i.e. civil war, genocide/politicide and revolution, as well as a combination of civil war and genocide/politicide). Within the next two sections, we present our data and research methodology, as well as our statistical results. We conclude with an assessment of exactly how our research challenges existing work and how it should guide additional investigations of the topic in the future.

### On death and dying

For quite some time researchers have been interested in the lethality of political conflict. Indeed, this is one of the standard characteristics, along with onset, type, frequency and duration, identified by the founders of

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1 modern conflict studies (e.g. Sorokin, Richardson and Wright) and contin-  
2 uously focused upon up until the present (e.g. the Correlates of War  
3 project and the research provided by Upsalla and PRIO). Researchers have  
4 not been concerned with all conflict-related deaths, however; some have  
5 died without much attention at all, while others have received the full  
6 weight of our collective gaze. Two distinct areas are discussed below.

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9 ***Against political order: interstate and non-state threats to human  
10 security***

11 Identifying political authorities as the primary agents of order and stability,  
12 most interested in conflict fatality have focused on the deaths that occur  
13 when states fight each other (interstate war) or when states are challenged  
14 from within (civil war and increasingly terrorism). The threshold of exactly  
15 how many individuals need to die before relevant events are considered  
16 varies across research projects,<sup>3</sup> but the focus is on a particular type of con-  
17 tentious interaction – when the state’s power is challenged and when indi-  
18 viduals die during such circumstances. In this view, political authorities are  
19 the arbiters of peace and protectors of the status quo.<sup>4</sup> As such, when gov-  
20 ernments hold coercive power monopolistically, it is expected that there  
21 would be fewer instances of political violence and hence fewer conflict-  
22 related deaths. When these entities were challenged, however, from outside  
23 or within, it is expected that deaths would be increased.

24 Within this framework, concerned individuals have identified when  
25 challengers to authorities take place and how severe they were (i.e. how  
26 many people die when they occur). As a major objective of social science is  
27 or should be the alleviation of human suffering, such information is essen-  
28 tial to compile for it facilitates the identification of trends and causal influ-  
29 ences (e.g. Singer 1976). These, theoretically at least, can be used to  
30 identify as well as direct intervention and post-conflict redevelopment.

31 To account for variation in fatality, researchers have systematically  
32 examined information compiled on the different characteristics above. The  
33 standard explanatory model used by this work considers diverse domestic  
34 political-economic characteristics (e.g. democracy, economic development  
35 and population size) as well as some international factors (e.g. trade  
36 dependence and alliances). As found, poorly developed, large and auto-  
37 cratic societies with relatively little power in the international system as  
38 well as generally isolated from trade/investment are the main culprits of  
39 political violence – killing off large numbers of their citizens. These find-  
40 ings are robust across studies, time and methodologies.

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42 ***In defense of political order: domestic state threats***

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44 Other researchers do not accept, by definition, the legitimacy or pacific  
45 nature of the state assumed above and they identify that these political

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entities can and have been a major source of threat to human life (e.g. De Jouvencal 1945; Rummel 1997; Van den Berghe 1990; Korey 1998; Totten and Jacobs 2002). Specifically, these individuals argue that many die when those in government employ coercive power against those under their territorial jurisdiction, engaging in genocide/politicide. Similar to the previous area of research, the threshold here is a point of much discussion (“exactly how many deaths does it take to make a genocide/politicide”). But, different from the earlier work, the behavior is identified by the *intent of the state* and not some body count – although some capacity for effectively carrying out political violence must be exhibited (Harff 2003, 58).

With these interests in mind, concerned individuals have identified when large-scale, state-sponsored violent activity occurred and how severe they are (e.g. Mitchell and McCormick 1988; Poe and Tate 1994; Stanton 2002; Harff 2003; Cingranelli and Richards 2004; Davenport 2004; Davenport and Armstrong 2004; Valentino *et al.* 2004). These efforts have been fewer in number and less frequently employed by researchers in assessing the prospects of human life, but there has been some attention given to the topic. Interestingly, the same explanatory factors are found to wield an influence. Again, it is found that poorly developed, large and autocratic societies with relatively little power in the international system, as well as generally isolated from trade/investment, are the main culprits of political violence – killing off large numbers of their citizens. These findings are robust across studies, periods and methodologies. Different from research on civil and interstate war, however, the influence of international factors is mixed. Several studies reveal that these explanatory factors are quite weak or inconsistent in their effects (Hafner-Burton 2005; Hathaway 2002).

### A comparative assessment of lethality

How do the two forms of conflict compare to one another? Over the 1946-to-2000 period, a side by side evaluation of new battle-death data (provided by Lacina and Gleditsch (2005)) and genocide/politicide data (that we compiled from diverse sources) is startling. Observing the number of deaths due to both forms of conflict, it is clear that *genocide/politicide far exceeds civil and interstate war* by an average magnitude of eight. Now, clearly there are some changes within the pattern of genocidal/politicial lethality over time. The number of victims drops significantly in 1988–1989, following the collapse of the Soviet Union, only to increase again temporarily for Rwanda in 1994. By and large, however, the number of victims was relatively steady during the post 1988–1989 period, and following 1989, the number of deaths due to genocide/politicide is still higher than that attributed to civil and interstate war – albeit a much lower difference. The implications of this trend are significant.

First, if one is interested in the influence of conflict on human mortality,

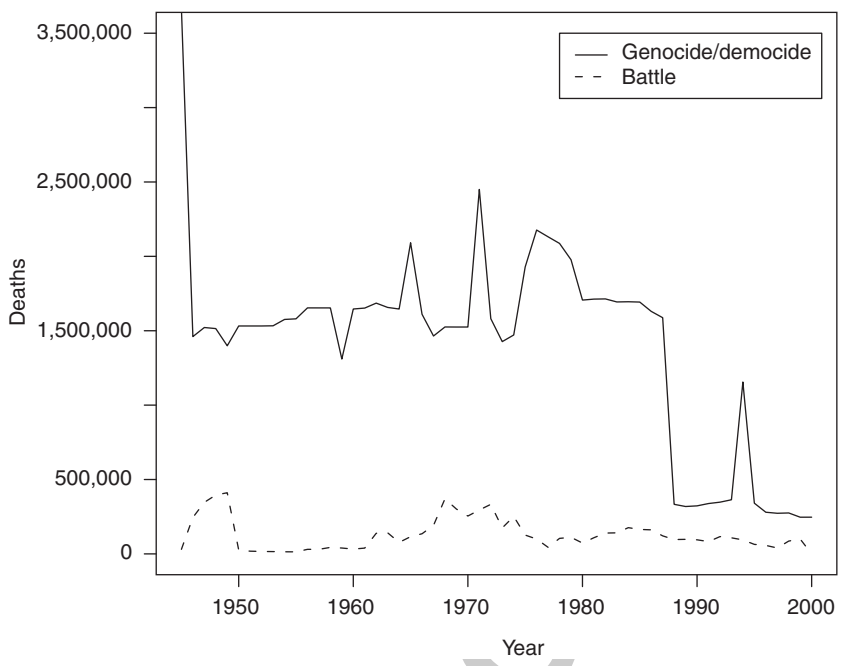


Figure 3.1 Trends over time in battle deaths and deaths from genocide/democide.

then it seems essential to focus on the *state* – specifically genocide/politicide, in addition to other forms of contentious politics. There is simply no other reasonable conclusion given the sheer magnitude of the difference. Accordingly, we strongly disagree with the argument of Gleditsch *et al.* (2002, 617) when they suggest that “[r]ather than expanding the (existing) conflict list, we think that there is a need for a separate list of genocides and extremely serious human rights violations.”<sup>5</sup>

Second, when genocide/politicide is considered, the issue of post-World War II pacification maintained by several in the literature becomes suspect. During the same time that democratization, economic interdependence and cultural globalization are growing, one sees a relatively steady amount of state-sponsored, large-scale killing. The dominant forces in the globe appear to have brought with them, simultaneously, a liberal-democratic dream within part of the world and an autocratic nightmare in the other.<sup>6</sup> Again, the need for considering state-sponsored violence is revealed.

Third, and complicating matters significantly, it is apparent that there is no clear-cut separation between the diverse forms of conflict that researchers of battle deaths study (interstate and civil war) and the type of conflict that human rights scholars focus upon (genocide/politicide). Even within the figure, there appears to be some overlap between the two, which is especially revealed when one considers the countries involved. For

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an illustration, let us consider the case of Rwanda from 1960–1961 (independence) to the present.

Following a withdrawal of Belgium and social revolution in the Congo, Rwanda underwent a major political transformation in the early 1960s. During this time, a small group of Hutu replaced a small group of Tutsi as political leaders, reversing an authority pattern that had existed for many years. The majority of the population was still without substantive political and economic change but the modification in leaders was important. This was especially the case for how different citizens were treated. For instance, as the Hutu-affiliated regime was coming into power, there were numerous instances of repression being enacted against ethnic Tutsis throughout Rwanda, resulting in the mass migration of this group to surrounding countries: e.g. Uganda and Tanzania.

From this Tutsi diaspora formed a rebel organization – the Rwandan Patriotic Front (hereafter RPF), who decades later (in 1990) began a civil war with the Hutu-oriented Rwandan government. Following failed attempts at negotiation (e.g. the Arusha Peace agreement) and democratization, violence in Burundi during the early 1990s that provoked mass migration of several hundred thousand Hutus into Rwanda, as well as the assassination of the presidents of Burundi and Rwanda on April 6, 1994, mass violence ensued. In the wake of this violence, a small group of Hutu extremists assumed power of the government and initiated politicide and genocide – of relatively equal lethality against Hutu and Tutsi (Davenport and Stam 2004). At the same time, the RPF renewed its effort to take over the country. Rather quickly, the RPF emerged as the military victor. In response, members of the Hutu regime, as well as large numbers of the population, fled into neighboring countries (especially Congo) due to widespread fear about the conflict in the country and what the returning group of Tutsi might do once in power.

The transition between Hutu extremist defeat and RPF victory is important to highlight because it is widely acknowledged that while assuming power, the latter engaged in numerous reprisal killings that reached a significant number (perhaps upwards of 150,000–200,000).<sup>7</sup> The assumption of power is also important for it is after this time that the RPF put in place a military regime, applying a significant amount of repression against the Rwandan population (Reyntjens 2004). It is clear that this behavior never reached the levels of violence encountered during 1994, and most activities involved restrictions being applied against political and civil liberties, but there was significant restrictions on civil liberties and some state-sponsored violence (e.g. Kippenberg 2005). Additionally, there were numerous efforts extended into neighboring Congo (during 1996–1998) in an effort to systematically eliminate the remaining former incumbents. There were also efforts to provoke civil war in Congo and gain control of the country by Rwanda through the installation of Kabila. All told, this violence resulted in an estimated four million fatalities between the years 1996 and 1999 (Human Rights Watch 1999).

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1 With civil war, genocide/politicide, state repression and interstate war  
2 overlapping in many ways, it is clearly the case that multiple forms of  
3 conflict, as well as multiple actors, need to be addressed at the same  
4 time. Of course, not all contentious interactions are as difficult to disen-  
5 tangle as Rwanda during the 1990s but such a case should give us pause  
6 when we attempt to understand the influence of conflict on lethality by  
7 parsing diverse actions/actors and the relative threats to human life  
8 wielded by them. Indeed, such a case should compel us to more  
9 carefully consider how different forms of contention concatenate to  
10 influence fatalities. Exactly how could this be achieved? We address this  
11 below.

### 12 *Generating deaths*

13 While research over the last five to ten years has significantly advanced our  
14 understanding of civil war (a particular form of high-lethal political viol-  
15 ence), perhaps none has been as important as the acknowledgment that it  
16 is the relative strength between combatants (i.e. authorities and dissidents)  
17 that holds the key to understanding this type of conflict (e.g. Fearon and  
18 Laitin 2003; Sambanis and Zinn 2002). In one of the clearest examples of  
19 this argument, Fearon and Laitin hypothesize that civil war is most likely  
20 to emerge when a government's capacity to identify, capture and kill chal-  
21 lengers is diminished (Fearon and Laitin 2003, 79–80) and when the  
22 growth of “insurgency” – a technique whereby “small, lightly armed  
23 bands [practice] guerilla warfare from rural base areas” (Fearon and Laitin  
24 2003, 79), is enhanced.

25 Of course, the struggles between authorities and dissidents are generally  
26 not balanced (with each actor wielding comparable levels of coercive  
27 power); in fact, they are normally quite lopsided in favor of the state. As  
28 conceived, the ability of the government to engage in repressive behavior  
29 leaves a situation where authorities dominate their territorial domains and  
30 where insurgents are comparatively weak.<sup>8</sup> Under most political, eco-  
31 nomic, demographic and geographic conditions, therefore, governments  
32 possess well-functioning military organizations capable of identifying  
33 where challenges are located, deploying the appropriate measures to  
34 combat these challenges, and either bringing insurgency to an end or pre-  
35 venting it from getting “out of hand” (Fearon and Laitin 2003, 79–81).  
36 Under exceptional circumstances, challengers are favored.

37 This tells us several things about lethality.

38 First, when capable states fight each other (associated with situations of  
39 interstate war) lethality should increase as those that are the most capable  
40 are the most brutal. Alternatively, lethality might decrease as those that are  
41 most capable are the most efficient thereby preserving human life.

42 Second, when a state's capacity is low but dissident capability is high  
43 (generally associated with situations of civil war and revolution), conflict  
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lethality should be low. This is explained by the fact that if states have the monopoly on the use of coercion but they are largely unable to employ it, then overall levels of violence should be limited. Alternatively, this could be exactly when conflict is most lethal. On the one hand, a weak state might be in a desperate position and resort to violence as a way to stay in power (Dallin and Breslauer 1970). On the other hand, facing a relatively weak opponent, dissidents might escalate their violent activities – attempting to push the situation into a crisis.

Third, when state military capability is high but dissident capability is low (generally associated with situations of genocide/politicide), then lethality should be high. In this context, states have the monopoly on the use of coercion as well as the capability to employ this behavior without significant resistance from the population. Lacking opposition, however, it is possible that conflict would be less lethal for it is not necessary.

Fourth and last, we acknowledge that the civil war literature has generally assumed that military capability influences actual state behavior (e.g. Fearon and Laitin 2003), but this is not necessarily the case. For instance, one argument maintains that states with military capability are likely to be the most active in their use of repression because they can engage in this behavior; consequently, they are the most lethal. Here, repressive behavior is applied out of a position of strength (e.g. Duvall and Stohl 1988). Others suggest that states without military capability are the ones most active in their use of repression and in these situations high levels of casualties are produced (Dallin and Breslauer 1970). Here, repression is applied out of a position of weakness (e.g. Arendt 1951).

Given the difficulties with separating distinct forms of conflict and accurately parsing out casualties to different political actors (evident within the Rwandan case), we believe that the consideration of specific combinations is particularly relevant. For instance, while civil war and genocide/politicide are frequently identified at the same time – generally noted for their high degree of lethality, it is not exactly clear how this relates to the discussion above about military capability. It may be the case that when a regime is engaging in genocide/politicide and authorities along with rebels are engaging in civil war, military capability is unimportant for understanding conflict fatalities. All that is important here is that conflict has essentially exploded and two different forms of large-scale contentious activity are occurring at the same time. Alternatively, it may be the case that when a regime is engaging in genocide/politicide and authorities along with rebels are engaging in civil war, military capability is extremely important for understanding conflict fatalities because it is only within states that have the wherewithal to engage with dissidents and engage in mass killing at the same time that one would likely see high casualty rates.

Opposite, we display the diverse possibilities (Figure 3.2).

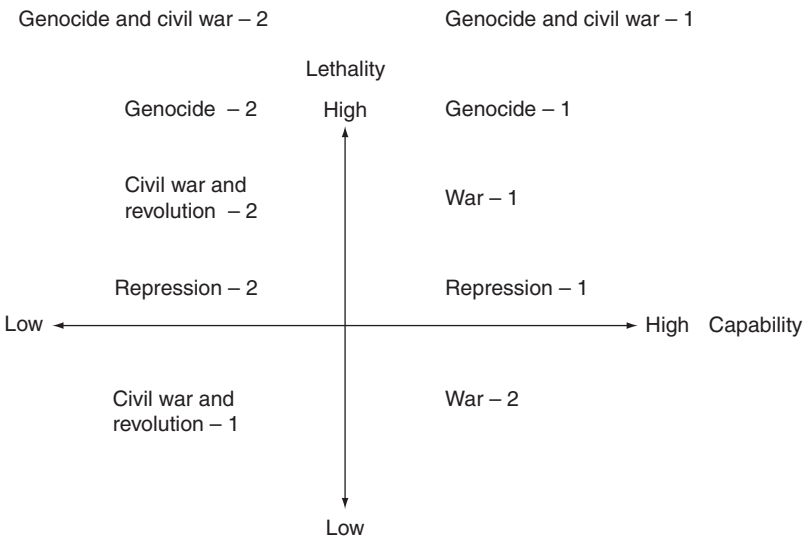


Figure 3.2 Contention and casualties.

Our approach here is similar to the argument made by the editors of this volume for we see state repression as “detering” others within the relevant territorial domain and abroad by sending a signal/message that they are able and willing to use the coercive power at their disposal. In fact, we are perhaps less sanguine about the role of the state than the editors of this volume as we focus on behavior that far exceeds the parameters of deterrent signaling: genocide/politicide seeks to wholeheartedly eliminate a group of people. We also identify that it is best to evaluate deterrent capability through the simultaneous consideration of state and non-state behavior. Repressive and dissident behaviors both send signals to the same audiences regarding not only the state’s capability to deter but also the ability of challengers to overcome this capacity. An assessment of lethality thus directs us to provide a more comprehensive understanding of the security situation.

**Data and methodology**

To investigate the interplay between conflict and capability as they influence lethality – accounting for distinct political actors, we employ data from a variety of sources. First, our measure of inter- and intra-state war-related fatalities comes from Lacina and Gleditsch (2005). As discussed above, these data focus exclusively on those deaths resulting from inter-, intra- or extra-state wars. Data on mass state-sponsored killings not covered by Lacina and Gleditsch (2005) are obtained from three different

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sources. In one project, Stanton (2002) has compiled, through Genocide Watch, a list of genocides/politocides and their magnitudes. Additionally, we use Rummel's (1997) data on democides and Harff's (2003) data on genocide/politicide casualties.<sup>9</sup> Specifically, we annualize these by simply dividing the battle deaths equally across the years of the conflict. Where only one figure exists per country-year, we employ that number. If more than one number exists, then we use the average.<sup>10</sup> Table 3.1 shows descriptive statistics for battle deaths and genocide/democide deaths in different contexts.

Data concerning lower-level conflict events are obtained principally from the Banks' Cross-National Time-Series (CNTS) Data Archive (2001). This includes data on the number of guerrilla wars ongoing within a country. We use the square root of the number of years a country has had an ongoing *guerrilla war*<sup>11</sup> as our first measure of lower-level conflict. The square root accounts for decreasing marginal returns of another year of guerrilla war on fatalities. The thought here is that the deadliest guerrilla wars are probably the shortest. Guerrilla wars that produce mass casualties will likely be decisive on one side or another. We also include a variable indicating whether a country is involved in a *revolution*<sup>12</sup> for that particular year (also derived from the CNTS). We include a variable measuring the number of *terrorist incidents*<sup>13</sup> coded from data provided by the National Memorial Institute for the Prevention of Terrorism (2004). These are truncated at 25 to reduce the influence of outliers.

In an effort to capture state activity below the level of genocide/politicide, we need to be a bit creative. As conceived, we wish to model repression's effect on battle deaths, but the two concepts are often conflated in their measurement. Repression measures, such as Gibney's (2005) Political Terror Scale (PTS), include killing, and therefore would be related to the genocidal/politicial deaths by definition. Fortunately, Cingranelli and Richards (2004) have recently disaggregated the four variables that sum to the PTS – killings, forced disappearance, torture and political imprisonment. We add the latter three together for our measure of *repression* and standardize the variable such that it has a mean of zero and unit variance.

Finally, we rely on a number of demographic factors to model the

Table 3.1 Descriptive statistics for battle deaths and genocide/democide deaths in different contexts

	<i>Min</i>	<i>Mean</i>	<i>Median</i>	<i>Max</i>
Conventional battle deaths				
Civil war no genocide/politicide	8	3,352	377	7,500
Civil war with genocide/politicide	12	9,102	1,478	350,000
Genocide/democide deaths				
Genocide/politicide no civil war	7.7	50,500	1,000	1,055,000
Genocide/politicide with civil war	7.7	28,180	2,885	1,055,000

number of deaths generated from political violence. Specifically, we use the *GDP* and *Population* figures from Fearon and Laitin (2003). We measure *Regime Type* with the interpolated Polity variable from Polity IV (Marshall and Jaggers 2005). We include in the model, the squared Polity variable to allow for an “inverted U”-shaped relationship between regime-type and casualties. Finally, as a measure of *military capability*, we use the Correlates of War project’s data on military expenditures, divided by the country’s annual GDP.

To model the relationship between our independent variables and deaths, we use a Negative Binomial regression (Long 1997) since it allows for overdispersion – a condition where the variance of the dependent variable is greater than its mean and one which our data exhibit. In addition to this, in an effort to assess the importance of specific factors (e.g. military expenditures relative to GNP) we examine interactive influences as well.

### Findings

Table 3.2 presents the findings of the negative binomial regression outlined above. In the first two columns are the results for all country-years in the dataset. Here, the results are largely as expected. As per-capita income increases, the number of deaths decrease, which may be simply a function of the lower likelihood of richer societies being involved in conflicts, a point discussed in more depth below. In contrast, countries with larger populations tend to have greater numbers of deaths. This could be simply an indicator of supply – countries with greater populations have a greater number of people who can die when conflict erupts. Though more likely,

Table 3.2 Negative binomial regression results – conventional battle deaths for all observations and only country-years in conflict

	<i>All observations</i>		<i>Only conflict</i>	
	<i>Estimate</i>	<i>p-value</i>	<i>Estimate</i>	<i>p-value</i>
(Intercept)	-6.1197	0.000	5.6066	0.000
log(GDP/capita)	-1.8310	0.000	-0.9118	0.000
log(Population)	0.9172	0.000	-0.0140	0.851
log(Military Expend/GDP)	0.8771	0.000	0.5702	0.000
Repression	3.3748	0.000	2.1208	0.000
Years of Guerrilla War	0.5125	0.292	0.6095	0.017
Terrorism	0.2377	0.007	-0.0875	0.122
Revolution	1.6504	0.000	0.5001	0.023
Polity2	0.0245	0.306	-0.0298	0.064
Polity2 <sup>2</sup>	-0.0211	0.000	-0.0144	0.000
log(military expend/GDP) × repression	-0.5571	0.005	-0.4758	0.000
log(military expend/GDP) × guerrilla	0.0020	0.990	-0.1402	0.095
log(military expend/GDP) × terrorism	-0.0360	0.177	0.0624	0.002

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the effect of population is almost entirely owing to the increased likelihood that states with higher populations (and hence a greater drain on resources) will engage in higher-level conflicts, such as civil wars. Preliminary evidence for the latter is presented below. Polity, or more specifically, its square, is significant. This suggests that the hypothesized parabolic relationship between regime-type and deaths holds.

By way of support for a military capability increases lethality argument, the coefficient for the log of military expenditures divided by GDP is positive indicating that the more money that is spent on the military, the greater the expected number of casualties. This coefficient can only be interpreted in the absence of guerrilla war and terrorism and at mean levels of repression due to the interaction terms. In contrast, those countries with ongoing revolutions can expect increased deaths opposed to those countries with stable regimes.

Admittedly, the effects of the conflict variables are somewhat harder to interpret because of the interactions. The coefficients for the main terms of repression, terrorism and guerrilla war can be directly interpreted, with the former two being significant, when military expenditures divided by GDP equals zero. However, this does not provide much real insight. It is exceedingly rare that a country would spend no money on the military. The nature of multiplicative effects suggests that guerrilla war, repression and terrorism – all have different effects at different levels of military expenditures. Further, the standard error for these effects varies as a function of the different levels of military expenditure. Thus, the significance of the effect (coefficient/standard error) also varies as a function of military expenditures.

The coefficients from Table 3.2 suggest that the square root of the number of years a country has been involved in a guerrilla war is significant but only for middle-levels of the log of military expenditures per GDP. In other words, if a regime is expending resources on the military and if guerrillas have been engaged in conflict for several years, then this conflict is likely to be quite lethal.<sup>14</sup> As for the relationships between terrorism, repression and military expenditures, when military expenditures are low, countries with higher levels of repression or terrorist incidents have significantly higher levels of deaths. However, when military expenditures are high, these differences disappear. Thus, countries that spend a lot on their militaries can expect a relatively constant number of deaths regardless of the number of terrorist incidents or the country's level of repression; in contrast, countries that do not spend a lot on their militaries can expect to find relatively high numbers of casualties suggesting that capability reduces lethality. One clear explanation for this concerns the fact that countries with large military expenditures communicate information to challengers that if they engage in dissident activity, they are likely to prompt a response from a well-funded organization. Realizing this, challengers are less likely to engage in violence unless they feel that they can avoid the state's response and/or outright defeat political authorities.

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Columns 3 and 4 present results for the same regression as above, but only for countries in which an interstate or civil war is ongoing.<sup>15</sup> We do this in order to understand the extent to which the relationships uncovered above are more a function of the binary process of conflict/no conflict or whether they are really distinguishing between various levels of conflict activity. The results here are somewhat mixed. As found, GDP/capita again decreases repression, but its coefficient is half that of the one for all years. Amidst conflict, the influence of economic development is diminished. The relationship between population and deaths completely evaporates when the data include only those countries in conflict. This suggests that population is a better predictor of the binary conflict process than of the variation in deaths within conflicts. The relationship between regime type and deaths also seems to change, though once the main- and squared-effects are taken into account, the relationship is largely the same. Revolution's effect is also still significant, but its magnitude is only a third of its previous level.

Military expenditures are still positively related to deaths given the same caveats as above. Both the main terms of repression and years of guerrilla war are significant, but the main term for terrorism is insignificant in this context. Here, repression has the same relationship. As military expenditures increase, the coefficients on repression decrease until they are indistinguishable from zero when the log of military expenditures/GDP is about 3. When relatively little money is spent on the military, repression increases the expected number of deaths. However, when a lot of money is spent on the military, expected deaths are essentially constant with respect to repressive behavior. The results for terrorism are particularly interesting. Amidst periods of civil and interstate war, for low levels of military expenditures, increasing amounts of terrorist events decrease battle deaths. Already taxed with two distinct forms of political violence, lethality is not enhanced by terrorism when the capability of authorities is limited. The relationship is reversed as terrorism increases deaths when a relatively large amount of money is spent on the military. Guerrilla warfare is also interesting. In all years, the effect of this variable on lethality is almost constant across all values of military expenditures. When we subset the data, however, results disclose that when little money is spent on the military, guerrilla warfare increases the number of deaths and this finding holds until middle-range values of expenditures. Above this level, there is no systematic relationship. Well funded military organizations do not lead to more deaths when civil war ensues.

It has been noted by various scholars that genocides/politicides only happen in civil wars. As a result, civil war deaths should capture the deaths from genocide/politicides as well; in short, genocide/politicides might be an unremarkable case of civil war. Other scholars suggest that genocides and politicides are so aberrant and abhorrent that they should be a subject of study in their own right (Totten and Jacobs 2002). We

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agree that genocides/politicides are likely governed by similar processes as other high-level conflicts but also acknowledge that disregarding the unique characteristics of these events will detract from our ultimate understanding of genocides/politicides in particular and high-level conflict, as well as who is responsible for threats to human security in general. Below, we present evidence in support of this line of thinking.

Table 3.3 presents results similar to those above, but for two different sets of countries. In the first and second columns are results for those countries in civil war without genocide/politicide and in columns 3 and 4 the results are presented for countries with both a civil war and genocide/politicide (identified with the data discussed earlier). The results from this analysis are informative.

When genocide/politicide and civil war are considered simultaneously, income has a greater pacifying effect than when there is only a civil war. Larger countries appear to have lower casualty levels in countries with a civil war and genocide/politicide. The coefficient is not significant in civil war in the absence of genocide/politicide. The main effect for military expenditures is significant in civil wars without genocide/politicide, but it is insignificant for those with genocide/politicide. This is possibly due to the difference in military technology used in each scenario, though this is pure speculation at this point.

Another key difference is found with regard to regime type. In countries experiencing only a civil war, the parabolic relationship between democracy and deaths continues to hold, but in genocides/politicides, this relationship disappears. If there is any relationship between democracy and deaths in this latter case, it is linear and not quadratic.

*Table 3.3* Negative binomial regression results – conventional battle deaths for civil wars with and without genocide/politicide

	<i>Civil war no genocide/politicide</i>		<i>Civil war and genocide/politicide</i>	
	<i>Estimate</i>	<i>p-value</i>	<i>Estimate</i>	<i>p-value</i>
(Intercept)	4.233	0.000	12.225	0.000
log(GDP/capita)	-0.360	0.039	-1.550	0.000
log(population)	0.151	0.055	-0.596	0.001
log(military expend/GDP)	0.400	0.024	0.046	0.833
Repression	0.862	0.030	1.451	0.000
Years of guerrilla war	-0.008	0.953	0.508	0.046
Terrorism	0.051	0.473	-0.039	0.625
Revolution	0.602	0.010	0.078	0.843
Polity2	-0.072	0.000	-0.084	0.064
Polity2 <sup>2</sup>	-0.012	0.006	-0.007	0.492
log(military expend/GDP) × repression	-0.079	0.560	-0.034	0.778
log(military expend/GDP) × guerrilla	0.029	0.580	-0.037	0.549
log(military expend/GDP) × terrorism	-0.021	0.391	0.006	0.822

1           Regardless of the level of military expenditure, guerrilla wars do not  
2 have any systematic impact on casualty levels when there is only a civil  
3 war. However, this changes when a genocide/politicide is also ongoing.  
4 Under these circumstances, guerrilla war increases deaths in the middle-  
5 range of military expenditures. The relationship of repression, conditional  
6 on military expenditures, on deaths is roughly the same across both sets of  
7 countries although there is a difference in the magnitude of the effect.  
8 Repression increases battle deaths over the middle range of military expendi-  
9 tures when there is only civil war and over almost the entire range of  
10 military expenditures when genocide/politicide is also happening. The condi-  
11 tional relationship of terrorism also changes across the two contexts.  
12 When there is only civil war, terrorism increases deaths at upper-middle  
13 levels of military expenditures. There is no systematic relationship between  
14 terrorism and deaths in countries where genocide/politicide is happening  
15 along with a civil war. This makes perfect sense because these actions are  
16 motivated by states against their own citizens and not necessarily as a  
17 function of a violent trigger.

18           Together, these results suggest that while civil wars, where genocide/  
19 politicide is also happening, are governed by a similar process as civil wars  
20 without genocides/politicide, there are non-trivial differences between  
21 these two circumstances, thereby suggesting that the two should be exam-  
22 ined individually.

23           Within the last analysis, we only considered whether a genocide/politi-  
24 cide was taking place along with a civil war. We did not incorporate,  
25 however, information about the number of fatalities attributed to  
26 genocide/politicide. In Table 3.4, we add deaths attributed to these events  
27 to the count of deaths compiled by Lacina and Gleditsch (2005). We then  
28 estimate the same model as above for the following three sets of observa-  
29 tions (1) all observations (columns 1 and 2), (2) countries experiencing  
30 genocide/politicide and civil war (columns 3 and 4), and (3) countries  
31 experiencing only genocide/politicide and no civil war (columns 5 and 6).  
32 The results show interesting differences across the three analyses.

33           For example, we find that income, in the form of GDP/capita, univer-  
34 sally lowers deaths, not only in these three models, but also in all of the  
35 others estimated within the study. This is the most consistent finding  
36 within our research; more economically developed societies kill less people  
37 even amidst diverse forms of conflict. Population increases deaths in the  
38 first and third case (all observations and countries with genocide/politicide  
39 but not civil war) and decreases battle deaths, though not significantly, in  
40 the second subset (countries with genocide/politicide and civil war). Mili-  
41 tary expenditures are significant and increase deaths in the conflict subsets  
42 (2 and 3). While income tends to decrease deaths, if much of that income  
43 is being spent on the military, then deaths will actually increase, in the  
44 particular circumstance of mean levels of repression and no guerrilla war  
45 or terrorism.

Table 3.4 Negative binomial regression results – conventional battle deaths + genocide/politicide deaths

	All years		Genocide/politicide and civil war		Genocide/politicide only	
	Estimate	p-value	Estimate	p-value	Estimate	p-value
(Intercept)	-4.915	0.001	8.734	0.000	-7.209	0.005
log(GDP/capita)	-1.013	0.012	-0.864	0.000	-0.865	0.039
log(population)	1.122	0.000	-0.163	0.051	1.208	0.000
log(military expend/GDP)	0.411	0.070	0.435	0.004	0.984	0.001
Regression	1.760	0.010	1.735	0.000	1.381	0.154
Years of guerrilla war	0.102	0.886	0.180	0.451	-2.304	0.161
Terrorism	0.180	0.162	-0.053	0.392	0.212	0.152
Revolution	1.283	0.021	0.352	0.106	0.015	0.981
Polity2	0.010	0.751	-0.050	0.003	-0.126	0.004
Polity2 <sup>2</sup>	-0.007	0.318	0.014	0.005	0.010	0.356
log(military expend/GDP) × regression	-0.183	0.231	-0.378	0.000	-0.432	0.053
log(military expend/GDP) × guerrilla	0.026	0.894	-0.097	0.185	0.410	0.169
log(military expend/GDP) × terrorism	-0.034	0.181	0.013	0.454	-0.049	0.251

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1 Regime type has differing relationships across the established models.  
2 Specifically, our research discloses that regime type does not matter at all  
3 when we include all observations. It has the predicted parabolic effect  
4 when investigating its relationship within genocidal/politicial civil wars;  
5 however, its effect is linear in genocides/politicials without civil wars. In  
6 most studies of violence, democracy is seen to have a robust effect.  
7 However, we do not produce the same finding here. The different effects of  
8 democracy suggest that democracy and democratic institutions have  
9 varying effects on different types of conflict. For instance, as Davenport,  
10 Armstrong and Lichbach (2006) suggest, civil wars are often a function of  
11 the interaction of state and dissident forces. There is some ongoing insta-  
12 bility here – thus the parabolic effect makes sense. It might be that the  
13 states with the least are the ones that are the most violent. On the other  
14 hand, genocide/politicide without a civil war suggests that citizens are not  
15 putting up much of a fight. Here, the real constraining factor is the extent  
16 of democratic institutionalization.<sup>16</sup> As this decreases, the probability that  
17 the government could engage in these types of actions increases.

18 Finally, results disclose that revolutions, while significant in the full  
19 dataset, are not significant for either conflict subset mentioned above. This  
20 suggests that revolution tends to be a good indicator of conflict versus  
21 non-conflict, but not a particularly good predictor of violence or lethality  
22 within conflicts. This finding is not particularly surprising. Some revolu-  
23 tions happen quickly with relatively little violence and others may be con-  
24 siderably more violent.

25 As for the interaction terms, there are no levels of military expenditures  
26 where guerrilla war or terrorism is significant. When we add in  
27 genocidal/politicial deaths, these lower level forms have no impact on the  
28 magnitude of killing. This is different from the analysis provided above.  
29 However, repression does have a significant impact, revealing that only the  
30 activities of political authorities matter when genocide/politicide deaths are  
31 added. For the full dataset, repressive behavior increases deaths at low  
32 levels of military expenditure. For civil wars with genocide/politicide,  
33 repression increases deaths at low levels of expenditures and decreases  
34 deaths at high levels. Well-funded militaries thus reduce the sheer mag-  
35 nitude of killing when they engage in genocidal/politicial repression, while  
36 those with poor funding tend to be the most brutal. For genocide/politicide  
37 without civil war, however, repression only decreases deaths when military  
38 expenditures are high. In contrast to the civil war and genocide/politicide  
39 situation, poorly funded militaries are not more inclined to take human life  
40 than those in the middle range of expenditures.

### 41 **Conclusion: the dead inform the living**

42 Our research was directed toward a particular limitation that we perceived  
43 within existing literature concerning the neglect of specific political actors  
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in assessments of relative threats levied against those residing within the territorial jurisdiction of the state. Specifically, we highlight this problem within the context of the debate around conflict fatalities – i.e. the number of individuals that die during contentious activities. We focused on these activities not only to provide a more comprehensive examination of threat and lethality but also in an effort to assess the general effectiveness of various political and economic factors in reducing the magnitude of violence experienced when contentious activities take place. The former is important for if we are to understand how conflict influences human life, then we must explore all of the different ways that conflict can manifest itself; especially forms as brutal as genocide/politicide. The latter is important for if we are to understand what influences conflict lethality, then we must explore causal factors across the full range of relevant activities and actors.

What have we learned? Essentially, we have learned two things.

First, the number of individuals killed during episodes of genocide/politicide exceeds those of all other forms of conflict by a statistically and substantively important magnitude. If one were to focus on the most significant factor to decrease the security of individuals, they would have to focus on genocide/politicide as these activities and the actors involved within its implementation – *states* – are the most deadly. This is crucial to understand because before we take up the cause of deaths as a dependent variable and bring the considerable knowledge and ability of quantitative political science to bear on what is undoubtedly a (if not the most) pressing issue confronting us, then we should be sure that we have defined the scope of inquiry properly. We can all acknowledge that studying deaths to decrease their frequency is important, the question really becomes, which deaths should be studied? Lacina *et al.* (2005) suggest that conflict-related deaths have been decreasing over the last 50 years, signaling the dawn of a more pacific century. However, the trend in deaths from genocide and politicide has been much less comforting – implicating states directly. It is not obvious that these massive killings will become any more or less frequent in the coming decades (activities in Congo, Sudan and other areas were not included because of data limitations), but this clearly reveals a persisting problem. As the world grows smaller, countries become more intertwined and the long arm of international law becomes somewhat stronger, it seemed less likely that we will see the types of conflict that generated the huge number of casualties in the middle of the previous century. Unfortunately, however, individual states turning on their citizens have not seemed to decrease with the end of the Cold War. Indeed, it is these conflicts that will be the biggest threats to human security in the future. Governments thus frequently overreact in their deterrent efforts far exceeding any level deemed reasonable.

Second, the evidence presented here suggests that genocide/politicide deaths may well share some causal mechanisms with more conventional

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1 battle deaths. Both are affected by income and democracy, though in dif-  
2 fering magnitudes and different functional forms. There were also some  
3 differences. For example, only the most militarily capable governments  
4 were found to decrease the lethality of repression during genocide/politi-  
5 cide without civil war but all other levels of expenditure were indistin-  
6 guishable. In the context of genocide/politicide, unless militaries are  
7 extremely well-funded, they tend to increase the magnitude of death  
8 generated; poorly funded militaries are thus associated with the most  
9 brutal forms of political violence suggesting that deterrent efforts go awry  
10 in contexts where authorities are under-prepared and overmatched. In the  
11 case of genocide/politicide with civil war, however, we find that across a  
12 large range of military where greater military expenditures decrease the  
13 lethality of state repression. Poor states that cannot fund their militaries  
14 to levels that would discourage predation from within or without are the  
15 most likely to experience the high-level civilian casualties brought on  
16 by genocide and politicide. This does not bode well for Africa and  
17 central Asia.

18 The key implication of these findings – that states pose the greatest  
19 threats to their citizens – is that we need to focus more attention on efforts  
20 to constrain governments from preying upon their societies. While Saide-  
21 man and Zahar focus equally on deterrence and assurance, the results here  
22 indicate that policymakers need to stress the latter. Given the dangers  
23 posed by governments, we need to determine how to limit their ability to  
24 harm their societies. Given the various interactions military spending had  
25 with other key variables, simply restricting such spending may not be all  
26 that helpful. Given that democracy and wealth only matter at the highest  
27 levels, we cannot expect either to be a magic potion to solve the problems  
28 of Africa and much of Asia. This chapter, instead, suggests that we need to  
29 think more about the limits of existing efforts and to focus more attention  
30 on the threats posed by states to their own societies.

31 The choice to consider diverse political actors/actions at the same time  
32 including deaths from genocide/politicide and civil war in calculations of  
33 lethality are consequential because if they were excluded we would be led  
34 to have an overly optimistic conclusion about conflict-related deaths and  
35 in the future. Considering a more comprehensive operationalization of  
36 fatalities, however, we are led to a somewhat more pessimistic conclusion  
37 about where we may be going. Given the large presence of autocratic  
38 regimes within specific regions of the world (Africa and the Middle East),  
39 the difficulties with developing many of these countries economically and  
40 the low likelihood that the international community will intervene in most  
41 of these countries before or during large-scale conflict behavior, it seems  
42 that many individuals throughout the globe (including some of the most  
43 populous countries) will continue to live in an environment where state-  
44 initiated violent behavior will take their lives. If we are to address human  
45 fatalities from conflict, therefore, it is to this part of the world and those

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political actors that we must turn. Such an acknowledgment is at once difficult and important to make for

[w]hen the community no longer raises objections, there is an end, too, to the suppression of evil passions, and men perpetuate deeds of cruelty, fraud, treachery and barbarity so incompatible with their level of civilization that one would have thought them impossible.  
(Freud 1915, 278)

Toward this end, our objection, our suggestion, is simple: we must not maintain a narrow conception of conflict fatalities, we must focus on all actions and actors that take human life and attempt to understand the processes involved with these diverse ways of killing. Only in this manner will we be able to structure a useful investigation. Only in this context, will the experiences of the dead assist us with protecting the living.

Notes

- 1 Consideration of research dedicated to protest, strikes, riots and terrorism relative to protest policing, counter-insurgency and human rights violation only reveals more of a bias – although the last has grown as of late.
- 2 This relatively inclusive approach to the study of conflict is reminiscent of the work initially conducted in the field – under the label “internal war” (e.g. Eckstein 1965).
- 3 See Sambanis (2004) for good discussion of civil war.
- 4 This perspective has been reinforced at numerous junctures in history (e.g. after the Enlightenment (e.g. Nagengast 1994) and following World War II (e.g. Walt 1991)).
- 5 We argue that there is no reason for constraining any list of conflict fatalities. This is especially the case if conflict fatality research is going to make comments about global trends and the changing prospect of human life throughout the world. For example, they state that Rummel (2000) has compiled an extensive list with approximate numbers of the total casualties in what he terms “democide,” a slightly wider category than genocide. However, his data are not annualized, and the same goes for other lists of human rights violations. These data are therefore less suitable for research based on country-years or on hazard analysis (Gleditsch *et al.* 2002, 619).
- 6 The latter is occasionally linked to the very same pacific democracies as in the cases of Guatemala (the United States) and Rwanda (the French and Belgians).
- 7 It should be noted that there are several databases that do conform to the country-year format required by the authors (e.g. global data: Mitchell and McCormick (1988); Poe and Tate (1994); Harff (2003); Cingranelli and Richards (2004); country-level data: Ball *et al.* (1999); Davenport and Stam (2004)). This estimate was given to me in private correspondence.
- 8 Researchers also note that a state’s extractive capability can fund counter-insurgent activities, including the provision of material rewards and political inducements. While these researchers may also note that political systems often enjoy some degree of political obedience and/or support from the population, repressive capability carries the bulk of the explanatory weight.
- 9 Accordingly, our research moves beyond that provided by Aydin and Gates for

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we use multiple sources to assemble a more complete listing of genocide/politicide.

- 10 In the unlikely case where the each year roughly the same number of people dies, this measure would be approximately correct and thus using this measure has no negative implications whatsoever. However, it is more likely that the distribution is not uniform across all years. To an extent this is true, our estimates are probably not as precise as we would like. It is possible that moves in the independent variables would help us understand the differences in magnitude across years in the same conflict. Because of our annualization of aggregate data, we are more making an argument that the mean level of the independent variables during that conflict and is causing the per-year value of deaths we see for that conflict. Thus, our inferences are more about average battle deaths among different conflicts rather than about changing casualty figures within conflicts.
- 11 Any armed activity, sabotage or bombings carried on by independent bands of citizens or irregular forces and aimed at the overthrow of the present regime (Banks 2001).
- 12 Any illegal or forced change in the top governmental elite, any attempt at such a change, or any successful or unsuccessful armed rebellion whose aim is independence from the central government (Banks 2001).
- 13 Terrorism is violence, or the threat of violence, calculated to create an atmosphere of fear and alarm. These acts are designed to coerce others into actions they would not otherwise undertake, or refrain from actions they desired to take (National Memorial Institute for the Prevention of Terrorism 2004).
- 14 A figure can be useful to understand these effects. In the interest of space, these have been omitted from the text, but are available on the author's website.
- 15 Most of the cases are civil war.
- 16 See the chapter by Aydin and Gates for which institutions matter most in democracies.