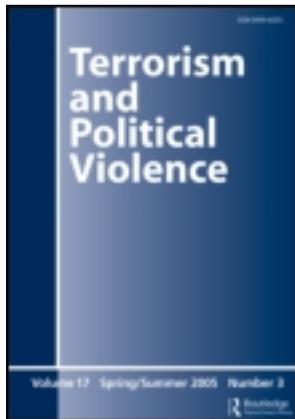


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The Ancient Fire: Religion and Suicide Terrorism

Peter S. Henne^a

^a Department of Government, Georgetown University, Washington, DC, USA

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The Ancient Fire: Religion and Suicide Terrorism

PETER S. HENNE

Department of Government, Georgetown University,
Washington, DC, USA

Does religion lead to greater destructiveness from suicide terrorism? And if so, how does it influence this form of political violence? Recent analyses of terrorism point to the significance of religion, but are divided as to whether religion itself matters, or certain types of religious terrorist groups are actually driving suicide terrorist violence. This article draws on social movement theory and recent work in the study of suicide terrorism to argue that religion influences the severity of suicide terrorist attacks as an ideology groups use to justify their struggle and gain public support. This effect occurs regardless of a group's goals or organizational nature. The theory is tested using a generalized estimating equation to account for multiple attacks by several groups. The study finds that the religious ideology of a group greatly increases the number of deaths from a suicide attack, even if varying group motivations and structural factors are taken into account. The article helps to clarify the effect of religion on contemporary terrorism, contributing to the study of both terrorism and religion and politics.

Keywords Islam, quantitative methods, religion, social movement theory, terrorism

Must the ancient fire not some day flare up much more terribly, after
much longer preparation?

—Friedrich Nietzsche¹

In November 2005, a series of suicide bombings in Amman, Jordan killed approximately 60 people and wounded over 100. The attacks—directed by Abu Musab al-Zarqawi's al-Qaeda in Iraq—were characterized by their coordination, severity, and their perpetrator's desire to institute Islamic rule in the region. Exceptionally

Peter S. Henne is a doctoral candidate in the Department of Government at Georgetown University.

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Address correspondence to Peter S. Henne, Department of Government, Georgetown University, Box 571034, Intercultural Center 681, Washington, DC 20057, USA. E-mail: psh22@georgetown.edu

violent suicide attacks like these have been increasing over the past few decades, and policymakers and scholars have been scrambling to explain this disturbing phenomenon, and what connection it has to the resurgence of religion in the last quarter of the twentieth century.

Many early explanations of suicide terrorism argued that the nature of Islam or conditions in the “Muslim world” were the cause of this destructive phenomenon.² Later analyses, however, pointed to non-religious factors such as occupation, governmental repression, ethnic fractionalization, or inter-group competition.³ More recently, there has been a progressive development in the debate over religion and terrorism, with many scholars accepting that religion does influence political violence, and focusing on the means through which religion affects violence. Some admit that religion helps to motivate combatants, but its significance is secondary to non-religious factors.⁴ Others point to organizational and motivational characteristics of groups that—along with religion—lead to severe violence.⁵

This development in the study of religion and political violence has led to diverging opinions among scholars of suicide terrorism, specifically concerning *how* religion influences suicide terrorism. This takes on a particular salience when looking at the destructiveness of groups’ suicide attacks; groups may adopt suicide terrorism for a variety of reasons—many of which have nothing to do with religion—but religion-related beliefs and motivations can still affect how many fatalities their attacks cause. It may be that fundamentalist groups focused solely on advancing their version of religion on a global stage cause the most destruction from suicide attacks.⁶ Or the most dramatic violence may arise when groups with religious motivations are fighting in the context of a nationalist struggle.⁷ Alternately, nationalism, repression, or economic deprivation may be more important than religion in determining the severity of suicide terrorism.

This article builds on studies that point to the unique effects of religious beliefs on political violence by applying their insights to variations in the severity of suicide terrorist attacks. It also helps to clarify the mechanism through which religious ideology influences violence by drawing on social movement theory work on framing. It argues that group motivations and organizational characteristics affect group behavior, but do not explain the level of violence among suicide attacks. When a religious ideology is utilized in instances of political violence, it can lead to combatants perceiving their struggle as a sacred one, and becoming disassociated from local factors. Yet this is not dependent on specific group motivations; instead, all religious violence, whether ethnoreligious or fundamentalist, is more destructive than violence driven by non-religious motivations. Once a group engages in suicide attacks, the religious framing of their actions can lead to an emphasis on causing numerous fatalities, whatever the group’s targets or aspirations. While group characteristics and goals are undoubtedly important, the nature of religious ideology itself is what explains the severity of suicide terrorism.

This article tests the role of religious ideology in suicide terrorist violence through a quantitative analysis of suicide terrorist attacks over the past three decades. Using a generalized estimating equation (GEE), the study demonstrates that suicide attacks by groups with a religious ideology are more violent than those with nationalist or leftist ideologies; this finding holds up even if the effect of both fundamentalist and ethnoreligious groups are accounted for. Also, this level of violence cannot be attributed to socioeconomic factors or the demographic makeup of the group.

The article makes several contributions to relevant theoretical literatures. First, it clarifies and corroborates recent findings in the study of religion and terrorism. Religious ideology, rather than groups' goals, is the most important factor in a group's level of suicide terrorism. Groups motivated by a mixture of religious and ethnic grievances may be more likely to launch violent terrorist attacks, while groups trying to advance a "pure" form of religion may be the most brutal; when looking specifically at variations in the number of deaths these groups cause from their attacks, however, these characteristics matter less than the broader effects of religion on violence. Second, by conceptualizing religion's effects on violence as a group-level ideology that frames terrorist actions, the article helps to specify the mechanisms through which religion influences conflict. The article therefore complements and extends existing studies of religion and political violence.

While many existing arguments focus on the causes of suicide terrorism or terrorism in general, their conclusions can extend to the severity of groups' suicide attacks. If Islamic traditions lend themselves to greater violence, this should be reflected in the damage groups cause through their attacks. Likewise, if the desperation caused by political repression or economic deprivation causes groups to resort to suicide terrorism, that same desperation should drive them to maximize their attacks' impact. Finally, if anger over occupying forces is sufficient to introduce suicide terrorism into a conflict, this should motivate groups to harm the other side as much as possible.

A few points on definitions are required. The study uses Bruce Hoffman's definition of terrorism as "the deliberate creation and exploitation of fear through violence or the threat of violence in pursuit of political change."⁸ Suicide terrorism is—following Pape—an attack in which the attacker does not expect to survive the mission and often employs a method of attack . . . that requires his or her death in order to succeed."⁹ An ethnoreligious group is a group motivated by both religious and nationalist concerns, or a group that advances a religious ideology in the context of a territorial dispute.¹⁰ A fundamentalist group is a group that is primarily concerned with advancing its interpretation of the religion.¹¹ A religious group, then, is a terrorist group that advances a religious ideology; this category includes both ethnoreligious and fundamentalist groups and addresses a group's ideological position, not its demographic makeup.

The study proceeds in three parts. First, it presents a theory based on religious ideology and the framing of violent political contention. Next, it discusses the methodology of the analysis. Finally, it presents the findings of the study and their applicability to the theoretical arguments.

Religious Ideology and Framing in Suicide Terrorism

This article draws on existing works on religion and terrorism, synthesizing them with social movement theory and applying them to the specific area of variation in the level of suicide terrorism violence. It posits that religion affects the level of suicide terrorism violence through its mobilization by a group as an ideology. Some terrorist groups draw on an ideology that defines their struggle in religious terms, justifying dramatic actions in support of their claims and conducting extremely fatal attacks. This ideology functions as a collective action frame, and thus influences the perceptions and tactics of a group regardless of their ultimate goals.

Religion and Political Violence

The study approaches religion as a specific type of belief system, whose infusion into politics can lead to dramatic effects. Religion is a “system of beliefs and practices oriented towards the sacred or supernatural,” rather than one based on ethnic pride or liberal values.¹² Connecting religion and politics leads to dramatic forms of political expression and the fusion of local disputes with global religious struggles. The political mobilization of religious beliefs challenges states’ legitimacy to a greater extent than would non-religious movements, raising the normative stakes and justifying extreme action.¹³ Moreover, the universal nature of many religions connects individuals with coreligionists across multiple societies, so religiously-inspired contention will be placed in the context of global struggles, rather than influenced solely by one country’s socioeconomic and political conditions.¹⁴ Religious influences on politics thus increase the intensity of groups’ devotion to their goals and connect them to actors and situations beyond their society.

When religion’s political expression occurs in the context of terrorism the result can be dramatic acts of violence. In an attempt to make sense of disorder in the world, religious groups will externalize religion’s struggle against evil onto a conflict.¹⁵ Combatants are not viewed as rivals to power or economic resources, but as personifications of evil and the enemy of their religion itself. Moreover, the “out group” includes anyone who does not follow the terrorists’ particular interpretation of a religion, so the violence could be directed against civilians in the same community as the group. This leads to severe, dramatic violence and conflicts that are difficult to resolve due to their sacred underpinnings.¹⁶ Among terrorist groups, this effect of religion translates most directly into the severity of the group’s attacks. As several scholars have noted, terrorist groups that view their struggle as a sacred duty are characterized by indiscriminately violent acts.¹⁷ This can be contrasted with nationalist groups, which—even though they conduct horrific attacks—are usually more restrained than religious groups; nationalists must demonstrate they represent an ethnic group so they are constrained by local standards and public opinion, which can translate into attempts to minimize civilian damage, especially among local communities.¹⁸

This connection of religion to political violence has been particularly dramatic in recent decades among Muslims. The most violent terrorist groups currently operating are for the most part Muslim, and many claim to be acting based on Islamic beliefs. Yet, Muslims are no more likely to be involved in conflict than any other religious groups, and severe violence can be produced by offshoots of any religion.¹⁹ Also, not all Muslims who participate in the activities of terrorist groups are driven by religious sentiment. The prevalence of Muslims in conflicts is thus more likely the result of contemporary structural factors rather than something inherent in Islam.²⁰ The explanation for the violence perpetrated by self-identified Islamic groups therefore lies in the dynamics of the social movements they constitute.

Religious Ideology and Framing in Suicide Terrorism

Many contemporary scholars of suicide terrorism accept the above discussion on religion’s role in political violence, but disagree on how it matters, with many pointing not to religion *per se* but specific types of religious motivations. Some claim resistance to occupation or intra-group competition drive suicide terrorism, but

religion can be a motivating force for groups.²¹ Others argue that religious motivations in the context of ethnic conflict lead groups to commit severe suicide terrorist attacks.²² Still others posit that fundamentalist groups that see themselves as part of a global struggle to defend and advance their religion will be driven to kill as many of their enemies as possible.²³

While each of these views has merit, there are problems when applying them to the issue of variations in suicide terrorism violence. Groups may adopt suicide terrorism because of non-religious factors, but if their religious beliefs affect how they conduct attacks, then ignoring these beliefs leaves most of the phenomenon unexplained. Explanations focusing on varying group motivations do point to the mechanisms connecting religious beliefs to suicide terrorism, but are still limited. While group motivations are important, specific attacks are often determined by rational calculations or pragmatic considerations independent of a group's overriding goal.²⁴ Also, the individual members or factions within a group may not share the leadership's goals and inter-group competition can influence violence, so motivations alone may not drive tactics and targeting.²⁵ Furthermore, it can often be difficult to conclusively determine a group's motivations, as the stated goals may change or not reflect actual tactics. These issues do not indicate that religion is irrelevant in suicide terrorism, only that explanations must be able to account for ambiguity in the goals behind specific attacks.

This study, instead, holds with scholars emphasizing the unique nature of religious ideologies, synthesizing these works with social movement theory; it focuses on the mobilization of religion as an ideology, rather than differences in motivations among groups. Several scholars point to the nature of religious beliefs mobilized as a political ideology when explaining the severity of religious violence. That is, the observed effects of religion on terrorism are most likely when groups mobilize the religious tradition as an ideology, especially when they draw on exclusivist or extremist strains of the tradition.²⁶ A religious ideology—following Moghadam's definition—is a political program based on a religious tradition in which the group's interpretation of the religion, rather than ethnic ties or class struggle, is the primary justification for its actions.²⁷ In the case of Islam, it involves a political platform derived from Islamic symbols, even if the goal is not religious; for example, Hamas aspires to establish a Palestinian state but includes explicit religious justifications for its struggle in its rhetoric.

Religious ideology influences behavior at the group level. Few members of groups like al-Qaeda join because of religious fervor, and banal motivations often drive individual terrorists.²⁸ Yet, religion, like any ideology, can influence a group's behavior in the absence of individual devotion to its precepts. Ideologies, especially religious ideologies, provide a specific meaning for a group's actions, enabling group cohesion. Also, the specifics of the ideology can define the means through which groups advance their struggle, with religious terrorist groups characterized by religiously-defined aspirations and dramatic acts of violence to advance their political aims.²⁹

The specific type of framing that comes with a religious ideology is what connects religious beliefs to the dramatic violence of these groups. As social movement theorists have demonstrated, framing—the manner in which groups justify their actions and interpret their grievances—is a crucial part of a social movement.³⁰ A group's framing is an attempt to both win public support for its cause and convince potential supporters of the worthiness of the group's approach to shared grievances;

the frame will thus influence the group's tactics and targets. Often, the ideology of a group will be the template from which a group constructs its frames, so groups with a religious ideology will have a distinct type of frame.³¹ The rhetoric a group uses to describe its goals and actions—such as appeals to religion or nationalism—can thus have a distinct effect on its behavior.

The religious framing of violence by terrorist groups is what leads to the dramatic effects of religion that scholars have noted. Even if they are motivated by political grievances, religious terrorist groups base their calculus for success and concerns about public responses on religious standards. The belief in the sacred nature of the attacks and desire to demonstrate the validity of their ideology leads to an emphasis on causing as much destruction as possible from the attack. Likewise, the perception of a global struggle and “other-ing” of ethnic kin who do not abide by the group's religious beliefs as enemies can lead to a lack of concern for minimizing local fatalities. The specific terrorist attacks conducted by religious groups are therefore a form of “costly signaling” that demonstrates commitment to their ideology.³² Religious framing of suicide attacks does not preclude strategic calculations, although the calculations are driven by the nature of the group's ideology.

While this framing influences several aspects of a group's contention, the most apparent effect is on the severity of its attacks, as noted by the aforementioned scholars. Religious groups may have similar goals as other groups and numerous non-religious groups conduct suicide attacks. Once a group decides to use suicide bombings as a tactic, though, the effects of the religious framing will make religious groups distinct from non-religious ones, in line with the theorized effect of religion on violence discussed above. Religious groups will focus on causing as many deaths as possible, and their definition of ethnic kin who do not abide by the group's religious beliefs as enemies will lead to indiscriminate targeting. In contrast, non-religious groups will either attempt to minimize fatalities to avoid public backlash or will focus their destructive attacks outside of their own community.

Because religious ideology influences groups' behavior as part of its framing process, the dramatic effects of religion will be evident in groups' attacks regardless of their goals or organizational nature. This does not completely reject the significance of organizational characteristics or inter-group competition; it does mean, however, that the apparent influence of religion on suicide terrorism violence cannot be reduced to organizational dynamics.

This theory thus corroborates and extends studies on religion and violence that point to the importance of religious ideology, synthesizing them with work on framing in social movement theory and applying them to the specific area of the level of suicide terrorism violence. It agrees with existing studies on the dramatic effects of religion on terrorism, but argues that—when looking at the level of violence from a group's suicide attacks—religion matters as an ideologically-based frame of contention; framing attacks through a religious ideology can lead to dramatic violence even if members' motivations, pragmatic considerations, and group goals vary. Groups with religious ideologies are thus more likely to cause greater fatalities from suicide terrorist attacks than non-religious groups, an effect that is not reducible to structural factors or group characteristics.

Explanations pointing to Islam would expect the suicide attack severity to correspond to the presence of Muslims, while non-religious explanations would expect grievances produced by high levels of political repression, ethnic and religious fractionalization, conflict intensity, occupying forces, and low levels of economic

development to be most significant. Finally, studies focusing on the motivations of religious groups would expect the distinction between ethnoreligious and fundamentalist groups to matter more than the broader dichotomy between religious and non-religious groups.

Methodology

The study uses a compiled dataset with information on suicide attacks and their perpetrators, as well as the socioeconomic, political, and cultural conditions in which the attacks took place. Data on attacks is drawn from a dataset by Kapusta—as part of a project conducted while at the U.S. Army’s School of Advanced Military Studies—which covers all suicide bombings between 1980 and 2006, including the number of dead, location, target, and group (when known).³³ The unit of observation is the suicide attack. While there are several other high-quality datasets available, the Kapusta dataset is particularly useful for this study. The dataset builds on Pape’s definition and draws from multiple sources to ensure reliability. Also it includes numerous suicide attacks that were recorded but failed to result in fatalities, which is useful in minimizing concerns about truncation at zero fatalities. Finally, it allows for comparison over time due to the use of the same methodology for the entire time period.³⁴

The dependent variable is the number of deaths from an attack, an indicator of a suicide attack’s severity. The number of fatalities provides a measure of an attack’s impact, which can be assumed to flow from the group’s intent to cause harm. Such an approach is in line with the relevant literature, which focuses on the occurrence of a violent conflict, the number of deaths, duration of a conflict, and/or type and number of attacks to measure conflict intensity.³⁵ As this study is focused on variations in levels of violence between suicide terrorist attacks, the duration of a conflict is not an appropriate dependent variable. Also, while the number of attacks would seem relevant, it captures other aspects of a group, such as how long it has existed.

The number of deaths may be influenced by factors besides ideology. It could be influenced by how capable the group is of conducting the attacks, which would be a function of resources or training; it could also be influenced by how effective the target government is at intervening in the attack. Likewise, a group could tend to attack civilian rather than government targets, which may result in more deaths. The study addresses these possible issues through a series of robustness checks and alternate models, which will be discussed below.

The dependent variable is continuous but is not uniformly distributed. There are numerous observations on the lower end of the fatalities scale and a few at the high end, so the study will take the natural log plus one of the dependent variable.³⁶ There are some concerns with censored data due to unobserved failed attacks, but the inclusion of attacks in which there are no fatalities can address this. There are also issues with a lack of independence among observations, as several groups conducted numerous attacks; the methods used will address this issue.

Explanatory and Control Variables

The explanatory variable, *Religious Ideology*, is based on the ideological categories in the Terrorist Organization Profiles (TOP), which the National Consortium for the Study of Terrorism and Responses to Terrorism (START) maintains; this variable

indicates whether or not the group has a religious ideology.³⁷ Some define a conflict as religious through the identity of the combatants, although most combine or replace this factor with a measurement based on the grievances expressed by the combatant groups and how important religion is to the societies in question.³⁸ Also, several scholars explicitly use the ideological profile of terrorist groups as independent or control variables.³⁹ As this study is focused on the ideology of the groups, it will follow this approach. That is, the explanatory variable is based on the importance of religion in the group's grievances and the means through which a group justifies its actions, with a 1 for *Religious Ideology* indicating a religious ideology. Coding derives from TOP ideological categories, and group name is based on that given dataset; groups that are coded as "religious" for their ideology, alone or in conjunction with other motivations, are considered a religious group. Due to possible differences among types of religious groups, two other explanatory variables are coded that are subsets of *Religious Ideology*. The first, *Ethnoreligious*, includes groups that have both "religious" and "nationalist-separatist," listed as their ideology; the second, *Fundamentalist*, includes groups whose only motivating ideology is "religious."⁴⁰

Attacks for which the perpetrator is unknown make up nearly half of the observations. Including these attacks with nationalist and leftist groups, though, would be inaccurate. Also, attacks by unknown groups tended to cause fewer fatalities than attacks by both religious and non-religious groups, so including them may bias the results (see Figure 2, below). The study therefore excludes all attacks for which the perpetrator was unknown, in order to focus on the effects of ideology.⁴¹

Several control variables are utilized. In order to test socioeconomic conditions, the study uses the United Nations Development Programme's (UNDP) *Human Development Index* (HDI). HDI includes life expectancy, adult literacy rate, education enrollment, and GDP per capita based on purchasing power parity. The index runs from 0 to 1, with higher human development indicated by a higher numerical score.⁴² The dataset used includes data per country in five-year increments; some countries did not include data for specific years, so data were taken from the most recent year's report available. Iraq and Afghanistan, however, were missing data for several years, which corresponded to the period in which most of the suicide attacks in these countries took place. This study thus uses the most recently available data for these countries, 1998 for Iraq and 1993 for Afghanistan.⁴³

The study uses regime type as an indicator for political repression. Many measures of regime type, however, include the presence of political violence in their assessments, which could bias the findings of this study.⁴⁴ The study therefore uses the "Democracy and Dictatorship Revisited" data developed by Cheibub, Gandhi, and Vreeland (DD), which accounts for this problem, with a 1 indicating the country was classified as a democracy for the year in which an attack took place.⁴⁵

The study also makes use of data on ethnic and religious fractionalization. *Ethnic Fractionalization* (EF) is included through the dataset prepared by Alesina *et al.*⁴⁶ This measures the probability that two individuals selected from a country belong to different ethnic groups, with higher values indicating a higher degree of ethnic fractionalization.⁴⁷ Religious fractionalization is addressed through inclusion of data on *Religious Minorities*; this is a variable developed by Jonathan Fox's Religion and State Project (RAS), which measures the number of minority religions that account for at least five percent of the population.⁴⁸ As sectarian strife often involves tension between several minority religious groups, or a majority and minority group, this variable provides an indicator of religious cleavages.

The study must also determine whether the presence of Muslims leads to a greater level of violence in suicide terrorism attacks. This is tested through a variable that indicates if the group is composed of Muslims, regardless of its ideology; this is based on the demographic makeup of the group, using START data (*Muslim Group*).

The effect of conflict levels (*Conflict Intensity*, CI) on suicide terrorist violence is included through the “Armed Conflict Dataset,” collected by the Uppsala Conflict Data Program (UCDP).⁴⁹ This dataset includes all military conflicts between 1946 and 2008. The variable taken from the UCDP dataset is their *Intensity* measure, which codes conflicts as *minor*, in which the number of combat deaths is between 25 and 1,000 over the course of a year, or *war*, with at least 1,000 deaths in any year. These categories are used as a three-level categorical variable in the dataset, with 0 indicating less than 25 deaths, 1 indicating minor armed conflict, and 2 indicating war in the year in which an attack took place.⁵⁰

The study also uses several other control variables. A dummy variable, *Occupation*, is included using Pape’s specification. Pape defines an occupation as a situation in which “a foreign power has the ability to control local governments independent of the wishes of the local community,” which includes states exerting control over a separatist region.⁵¹ Thus, any country in which military forces—some of which are of a different religious background from the people of the territory—are present in a territory and exert some control over it is coded as occupied.⁵² Dummy variables for robustness checks are also used; this includes countries that account for either a great amount of suicide terrorist attacks or deaths—specifically Afghanistan, India/Kashmir, Iraq, Israel/Palestine, Sri Lanka, and the United States—international or transnational attacks, attacks that were successful in causing fatalities, and attacks by an unknown group.⁵³

There are a few problems with the data that should be noted. First, attacks in occupied or separatist regions were coded for the country in which they resided; the numerous robustness checks should account for any bias that arises. Second, a majority of the attacks were conducted by groups composed of Muslims, and all groups with a religious ideology were Islamic. This would complicate attempts to demonstrate that the effects of religious ideologies differ among Islam, Christianity, and other religions. It will not affect this study, though, because there are numerous Muslim groups with nationalist ideologies and attacks in the non-religious category by groups that are not composed of Muslims, thus ensuring variation in the explanatory variable.

Methods

This study makes use of a Gaussian GEE model with exchangeable correlation—using robust standard errors—to test the number of deaths, with several robustness checks.⁵⁴ The data include fifty-seven groups. A few groups conducted over a hundred attacks, while many others conducted less than ten. As a result, the attacks are clustered by terrorist group, with significant clustering among the more active groups. This suggests a lack of independence among observations, which makes ordinary least-squares (OLS) regression inappropriate for this study. GEE models, though, are able to analyze data with such correlation, allowing for more accurate estimations. GEE models include correlation among observations in the model, correcting for its effects. The specific GEE model used here is one for continuous data and is population-averaged, which is useful for analyses of variation among groups

in a sample. Because of the nature of the clustering, it is likely that the observations within each cluster covary equally, so GEE is used with exchangeable correlation.⁵⁵

The study runs five main models. Model 1 includes all control variables and *Religious Ideology* to test the effects of religious ideology. Model 2 includes *Religious Ideology* and *Ethnoreligious Group*, to determine whether apparent effects of religious ideology are actually due to ethnoreligious groups. Model 3 includes *Religious Ideology* and *Fundamentalist* to perform a similar test for fundamentalist attacks. Models 4 and 5 test the significance of *Ethnoreligious Group* and *Fundamentalist* separately, without including *Religious Group*; Model 4 includes *Ethnoreligious Group*, and Model 5 *Fundamentalist*.

The study also runs all models that include *Religious Ideology* (Models 1 through 3) through a series of robustness checks. The models are run with each of the high salience countries and conflicts removed—six in total—to determine if any of these cases are driving the results. Robustness checks are also performed to test whether the results are being driven by international or transnational attacks, whether excluding unsuccessful attacks affects the results, and whether controlling for group size affects the results.⁵⁶ Each model is run without *CI*, without *Muslim Group*, and without *EF*, to deal with possible collinearity and issues with the control variables. Another robustness check is performed using a dataset that included all attacks for which the perpetrator was unknown, with a dummy variable indicating an attack was unknown. There are thus 13 robustness checks, all of which are run on the three models containing *Religious Ideology*, resulting in a total of 39 alternate specifications.

Robustness checks are also run using alternate models. This includes an OLS regression and a negative binomial regression to determine if the use of a GEE model affected the results. It also includes a logit model using the *Success* variable to determine if religious ideology influences the chance of causing deaths from an attack. Finally, a multinomial logit is used with the *Target* variable to determine the effects of religious ideology on an attack's target.

Results

The results of the data analysis demonstrate the significance of religious ideology. The religious ideology of a group responsible for a suicide terrorist attack positively correlates with the severity of the attack, and has an effect on violence whether or not the group is ethnoreligious or fundamentalist. Some of the control variables correlate with the level of violence as well, but are neither as consistent nor significant as religious ideology.

A preliminary analysis of the data indicates the greater lethality of attacks by religious groups. Out of 2200 attacks, 841 were by religious groups, 253 were by non-religious groups, and 1,108 were unknown. Out of attacks by religious groups, 619 were by ethnoreligious groups and 222 were by fundamentalist groups. The mean number of deaths from attacks was 8; for religious groups it was 12, and non-religious groups was 5. For ethnoreligious groups, the mean was 7, and for fundamentalists it was 24. The mean number of deaths from unknown groups was 4. This suggests that groups with a religious ideology are more likely to cause a great number of deaths from suicide attacks than non-religious groups, but among religious groups fundamentalists were more violent. (See Figure 1).

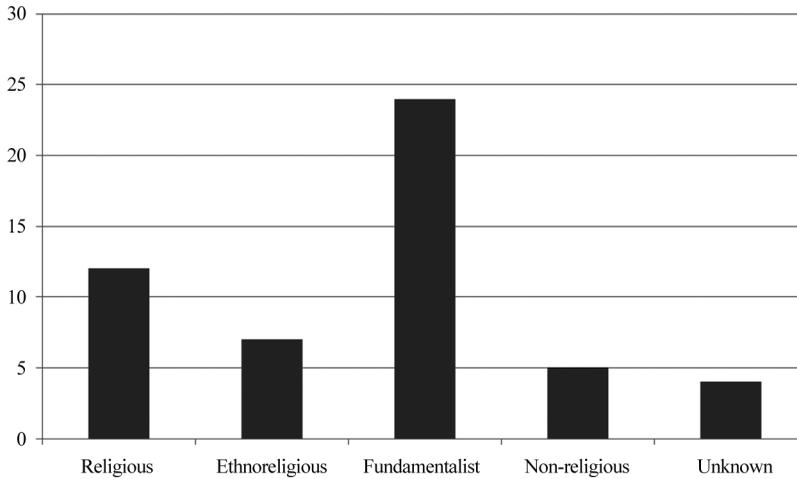


Figure 1. Mean number of deaths per attack by category.

The analyses of the relationship between the number of deaths from a suicide terrorist attack and a group's religious ideology using GEE strengthen this finding. *Religious Ideology* is positively correlated with the number of deaths from suicide terrorist attacks, and is highly significant in all models. *Ethnoreligious Group*, in contrast, is significant and negative in Model 2, but is not significant in Model 4; it thus does not appear to contribute to high levels of suicide terrorism violence. *Fundamentalist* is weakly significant and positive in Model 5, but is not significant in Model 3; it is therefore unclear whether fundamentalist groups affect the severity of suicide terrorism. Because *Religious Ideology* remained significant even when *Ethnoreligious Group* and *Fundamentalist Group* were included, these findings suggest the apparent effect of a group's religious ideology on its violence cannot be explained by its goals. (See Figure 2 and Table 1).

Some structural factors seem to matter. *CI* was significant and positive in all models, and *Muslim Group* is significant and negative in Models 1 through 3, although the latter finding is likely due to its correlation with *Religious Ideology*.⁵⁷ *HDI* is significant and positive in Models 1 through 3, although it is not significant in Models 4 and 5. *Occupation* is consistently significant and negative—even when the religious explanatory variables are removed—although this may be due to selection issues, as will be discussed below.

The importance of religious ideology is also apparent when the substantive significances of variables are compared. *Religious Ideology*'s smallest coefficient out of the four models (in Model 2) is 0.62, with a confidence interval from 0.22 to 1.01; this translates to a mean increase of 62 percent fatalities when a religious group is present in a conflict. The higher coefficients for *Religious Ideology* in the other models indicate even more dramatic effects. In contrast, when *Ethnoreligious Group* and *Fundamentalist Group* are included without *Religious Group*, their effect is to increase the mean number of deaths from suicide attacks by 15 percent (for *Ethnoreligious Group*) and 42 percent (for *Fundamentalist*); yet, the confidence interval for each variable crosses zero, so it is possible their effects are minimal. The only other consistently and positively significant variable is *CI*, but its coefficients are smaller than *Religious Ideology*'s in all models. *Occupation*'s substantive effects appear to be larger than

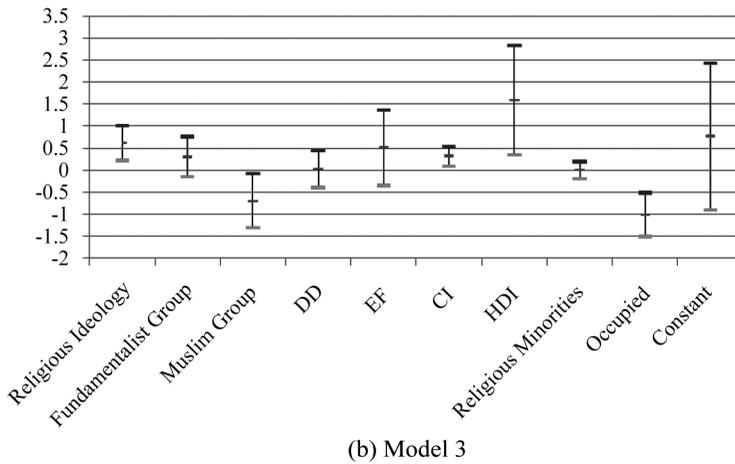
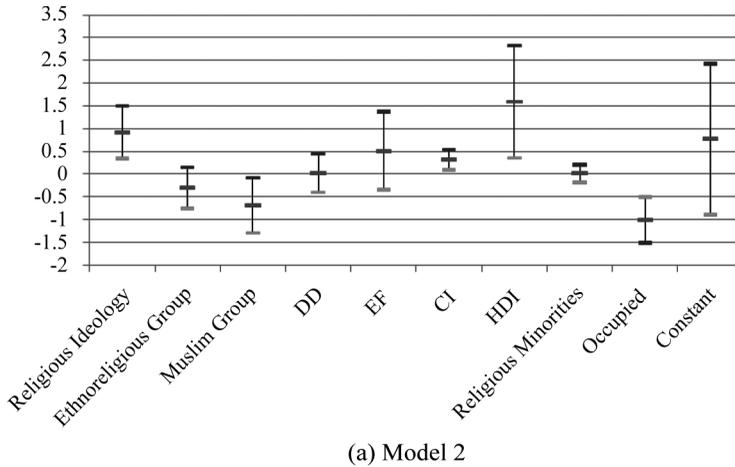


Figure 2. Significance of *Religious Ideology* and other variables in models 2 and 3.

Religious Ideology, although they are negative. But a one-unit change in this variable represents the full range of the data; a more appropriate change—based on the mean and standard deviation—would result in a smaller substantive effect. (See Figure 3).

Robustness Checks

The results withstood robustness checks based on specific conflicts or conditions. Of the 39 models run as robustness checks, *Religious Ideology* was significant at the 0.01 level in all but nine models, and was significant at the 0.05 level in the remaining specifications.⁵⁸

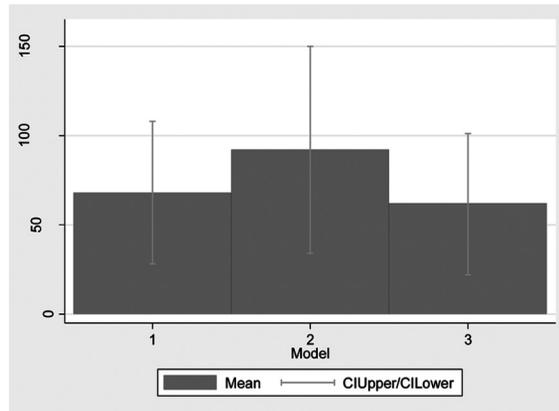
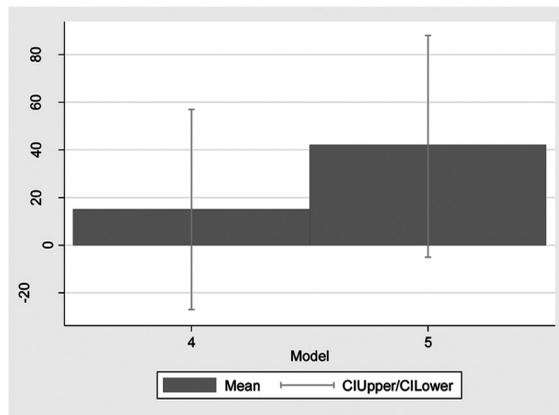
There are also possible concerns about the model. One could argue that the data call for a negative binomial regression. Yet that would likely be inappropriate for this study—as the data do not represent an event count—and logging the dependent variable may account for some issues with the use of a model intended for a continuous dependent variable. When the models were run using a negative binomial instead of a GEE model, however, religious ideology remained significant.

Table 1. Number of deaths from suicide attacks

	Model				
	1	2	3	4	5
Religious ideology	0.68*** (0.21)	0.92*** (0.30)	0.62*** (0.20)		
Ethnoreligious group		-0.31 (0.23)		0.15 (0.21)	
Fundamentalist group			0.31 (0.23)		0.42* (0.24)
Muslim group	-0.74** (0.29)	-0.69** (0.31)	-0.69** (0.31)	-0.37 (0.39)	-0.22 (0.31)
DD	0.02 (0.21)	0.03 (0.21)	0.03 (0.21)	0.03 (0.24)	0.08 (0.24)
EF	0.69 (0.46)	0.51 (0.44)	0.51 (0.44)	0.82* (0.43)	0.58 (0.40)
CI	0.28*** (0.11)	0.32*** (0.11)	0.32*** (0.11)	0.27** (0.13)	0.33*** (0.12)
HDI	1.44** (0.63)	1.59** (0.63)	1.59** (0.63)	0.92 (0.60)	1.07* (0.63)
Religious minorities	-0.02 (0.10)	0.01 (0.10)	0.01 (0.10)	-0.05 (0.09)	0.00 (0.09)
Occupied	-1.06*** (0.26)	-1.01*** (0.26)	-1.01*** (0.26)	-1.14** (0.25)	-1.03*** (0.24)
Constant	1.00 (0.78)	0.77 (0.85)	0.77 (0.85)	1.52** (0.71)	1.06 (0.79)
Observations	1,001	1,001	1,001	1,001	1,001

*** $p < .01$, ** $p < .05$, * $p < .1$.

The dependent variable is the natural log of number of deaths plus one. Robust standard errors are in parentheses.

(a) Substantive significance of *Religious Ideology*(b) Substantive significance of *Ethnoreligious Group* (Model 4) and *Fundamentalist Group* (Model 5)**Figure 3.** Substantive significance of religious explanatory variables.

There may also be an issue with selection bias. This could in part be connected to censoring of the data through religious groups being more likely to conduct successful attacks, in terms of causing fatalities. This relates to the theoretical concern of a group's effectiveness or the weak defenses of its targets explaining the number of deaths. If this were the case, then groups with a religious ideology would be more likely to conduct a successful attack than non-religious groups. This was tested using a logit model, with an attack's success in producing fatalities as the dependent variable. *Religious Ideology* was insignificant in this model, indicating that groups with a religious ideology were not more likely to launch successful attacks. (See Table 2.)

The selection bias may also be related to the fact that this study looks only at uses of suicide terrorism, rather than the decision to use the tactic. The most common solution to this problem, however—the Heckman selection model—may be problematic, as it requires a variable exogenous to the outcome equation that can predict selection into the sample.⁵⁹ This is likely not the case with suicide terrorism, as explanations for the cause of suicide terrorism are also conceivable explanations for variations in its severity. In the absence of such an instrument, the use of the

Table 2. Condensed results of alternate dependent variables

Effect of religious ideology on:	Model 1
Success of attack	0.53 (0.34)
Likelihood of government rather than civilian target	-0.88** (0.44)
Likelihood of military rather than civilian target	-0.44 (0.45)

* = p value of .1. ** = p value of .5. *** = p value of .01.

Row 1 presents the findings of a logit regression, with *Success* as the dependent variable. Rows 2 and 3 represent the findings of a multinomial logit with *Target* as the dependent variable and civilian targeting as the base category.

Heckman selection model may produce problematic results.⁶⁰ Selection bias could be a concern if a high value on one of the control variables makes a group more likely to conduct a suicide attack, which would result in its significance being minimized in the uncorrected outcome equation. This may be the case with *Occupation*, and the negative sign for this variable may actually be positive if selection bias were corrected for.⁶¹ This does not undermine the significance of religious ideology, though, as it is unlikely this bias would be so severe as to not only enhance *Occupation's* significance but also erase the high significance of *Religious Ideology*.

Finally, there may be a problem with targeting. If religious groups are more likely to attack certain types of targets than non-religious groups, the apparent propensity for high fatalities may be driven by the nature of the target rather than ideology. This was tested using a multinomial logit, with target type—military, civilian, or government—as a non-ordinal dependent variable. Based on these tests, religious groups were more likely to target civilian targets than government targets, but were no more likely to attack civilian than military sites. The possible counter-argument that religious groups cause more fatalities from suicide attacks because they attack civilians can therefore be rejected.⁶² (See Table 2).

Implications

These findings show strong support for the theorized effect of religious ideology on terrorist violence. Groups with religious ideologies cause more deaths through suicide bombings than nationalist and leftist groups. This relationship holds in conditions of varying political freedom, economic development, ethnic fractionalization, and military occupation. Studies of suicide terrorism that ignore—or attempt to downplay—the importance of religion in groups' actions will therefore be incomplete, and possibly misleading.

This analysis can also provide some information on the means through which religious ideologies influence political violence. The fact that the presence of Muslims in a terrorist group does not increase the level of violence indicates that religious traditions themselves do not cause severe suicide terrorism violence. Instead, ideologies based on any religion will intensify the violence of terrorist groups. Also, while ethnoreligious groups likely exacerbate political violence in general, they do not appear to lead to higher levels of violence from suicide terrorist attacks. Similarly, fundamentalist groups might contribute to high levels of suicide terrorism violence, but this does not account for the influence of religious ideology

on suicide terrorist violence. This suggests that while studies concerning the varying importance of ethnoreligious and fundamentalist groups are likely accurate, their findings may not extend to explaining the level of suicide terrorist violence. More importantly, religious ideology influences the behavior of terrorist groups even when the differing natures of the groups are accounted for. This affirms the findings of other scholars who point to the effects of religious beliefs—especially when mobilized as an ideology—to explain the severity of contemporary political violence, extending their theories through the specification of the importance of framing and application to the specific area of variations in suicide terrorism violence.

Three areas for further research remain. First, this quantitative study is able to demonstrate the correlation between religious ideology and fatalities from suicide terrorist attacks and indicates the role ideology plays. Qualitative studies of religious terrorist groups' use of suicide terrorism may thus be required to affirming the posited role of framing.⁶³ Second, the study includes only suicide terrorist attacks and analyzes one aspect of a group's violence, the number of deaths it causes. It is likely that religion has a similar effect on other forms of political violence but such a claim requires further empirical testing. Finally, this study challenges arguments claiming Islam causes terrorism. Yet all religious suicide attacks in this study were by Islamic groups, and Muslims conducted many of the attacks by non-religious groups. This suggests some linkage between Islam and violence, if only in the prediction that terrorist groups are more likely to emerge from Muslim populations, but testing such a claim would require variation in the use or non-use of violence, in addition to groups' religious backgrounds.

Conclusion

The high level of violence perpetrated by religious terrorist groups is a result of their religious ideology, and not merely structural conditions. Moreover, while groups' motivations are important, religious ideology itself remains a significant determinant of the level of suicide terrorist violence; it is the manner in which groups draw on their culture and interpret structural grievances that determines their level of violence. Explanations of religious terrorism should thus focus on what ideology terrorist groups hold and how they use this ideology to justify their violent acts.

The policy implications of this study are both pessimistic and optimistic. The international community faces an array of groups that justify their violence through religion. Policymakers must accept that religious terrorist groups will operate differently than non-religious groups. While less militant allies or members of these groups may be amenable to negotiation, those factions advancing a religious agenda will prove resistant to efforts at conflict resolution. Instead, what is required is a "counter-framing" of contemporary terrorists' violent religious ideology; that is, a public diplomacy campaign to counter the violent religious ideologies that inspire these groups.⁶⁴ As groups' ideologies play a significant part in their level of violence, undermining the ideologies through the dissemination of non-violent religious belief systems may prove effective.

Yet, the study is optimistic about the broader effects of religion on politics. Several scholars have noted what Daniel Philpott calls the "political ambivalence of religion."⁶⁵ The passions of religious beliefs, channeled into organized rituals, often erupt into politics; these eruptions can either be positive—as in the case of democratization—or negative, as in terrorism. This study supports the arguments

by Casanova, Philpott, and others that the infusion of religion into politics will not always be disruptive, and the destructive suicide terrorism of recent decades is not the inevitable outcome of Islamic influences on politics.⁶⁶ The ancient fire within religion can lead to horrific violence, but need not be ignited.

Notes

1. Friedrich Nietzsche, *On the Genealogy of Morals and Ecce Homo*, trans. Walter Kauffman and R. J. Hollingdale (New York: Vintage Books, 1989), 54.

2. Gabriel Ben-Dor, "The Uniqueness of Islamic Fundamentalism," in Bruce Maddy-Weitzman and Efraim Inbar (eds.), *Religious Radicalism in the Greater Middle East* (London: Frank Cass, 1997), 239–253; Martin Kramer, "Sacrifice and Fratricide in Shiite Lebanon," in Mark Juergensmeyer (ed.), *Violence and the Sacred in the Modern World* (London: Frank Cass, 1992), 30–48; Bernard Lewis, "The Roots of Muslim Rage," *The Atlantic Monthly* 266, no. 3 (September 1990): 47–60.

3. Mia Bloom, *Dying to Kill: The Allure of Suicide Terrorism* (New York: Columbia University Press, 2007), 133; Alan. B. Krueger and Jitka Maleckova, "Education, Poverty and Terrorism: Is There a Causal Connection?," *Journal of Economic Perspectives* 17, no. 4 (2003): 119–144; Daniel Masters, "The Origin of Terrorist Threats: Religious, Separatist, or Something Else?," *Terrorism and Political Violence* 20, no. 3 (2008): 396–414; Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2006); Susanna Pearce, "Religious Rage: A Quantitative Analysis of the Intensity of Religious Conflicts," *Terrorism and Political Violence* 17, no. 3 (2005): 333–352; James A. Piazza, "Rooted in Poverty?: Terrorism, Poor Economic Development, and Social Cleavages," *Terrorism and Political Violence* 18, no. 1 (2006): 159–177.

4. Both Pape and Bloom have made this point. See Bloom (see note 3 above), and Pape (see note 3 above).

5. Victor Asal and R. Karl Rethemeyer, "The Nature of the Beast: Organizational Structures and the Lethality of Terrorist Attacks," *Journal of Politics* 70, no. 2 (2008): 437–449; Michael C. Horowitz, "Nonstate Actors and the Diffusion of Innovations: The Case of Suicide Terrorism," *International Organization* 64, no. 1 (2010): 33–64; Assaf Moghadam, "Motives for Martyrdom: Al-Qaida, Salafi Jihad, and the Spread of Suicide Attacks," *International Security* 33, no. 3 (2008/09): 46–78; James A. Piazza, "A Supply-Side View of Suicide Terrorism: A Cross-National Study," *Journal of Politics* 70, no. 1 (2008): 28–39; James A. Piazza, "Is Islamist Terrorism More Dangerous?: An Empirical Study of Group Ideology, Organization and Goal Structure," *Terrorism and Political Violence* 21, no. 1 (2009): 62–88. Other studies emphasize different aspects of terrorism, such as its effects on domestic politics and state sponsored terror. For an example of the former, see Axel Dreher, Martin Gassebner, and Lars-H. Siemers, "Does Terrorism Threaten Human Rights? Evidence from Panel Data," *Journal of Law and Economics* 53, no.1 (2010): 65–93. For the latter see Christian Davenport and Patrick Ball, "Views to a Kill: Exploring the Implications of Source Selection in the Case of Guatemalan State Terror, 1977–1996," *Journal of Conflict Resolution* 46, no.3 (2002): 427–450.

6. Moghadam, "Motives for Martyrdom" (see note 5 above); Piazza, "Is Islamist Terrorism More Dangerous?" (see note 5 above).

7. Asal and Rethemeyer (see note 5 above); Masters (see note 3 above).

8. Bruce Hoffman, *Inside Terrorism* (New York: Columbia University Press, 2006), 40.

9. Pape (see note 3 above), 10.

10. See Jonathan Fox, *Ethnoreligious Conflict in the Late Twentieth Century: A General Theory* (Lanham, MD: Lexington Books, 2002).

11. "Fundamentalism" is of course a problematic term. It is used here to indicate groups focusing on advancing a "pure" form of religion, rather than referring to a distinct set of beliefs. A more specific term, such as Moghadam's "*Salafi-Jihadi*" ideology, would be appropriate for contemporary groups—like al-Qaeda—but the author intends this category to refer to this general purifying trend in religions, rather than any specific religious movements. Also, the term has been used by several authors to discuss puritanical strains within religious politics; this includes Jonathan Fox's work on religion and conflict, Olivier Roy's discussion of

“neo-fundamentalism,” and Yahya Sadowski’s typology of political Islam. It should be noted that the author does not believe this category is analytically useful in explaining level of suicide terrorism violence, and it is thus included as a control variable for a rejected hypothesis. Ibid.; Assaf Moghadam, “The Salafi-Jihad as a Religious Ideology,” *CTC Sentinel* 1, no. 3 (2008): 14–17; Olivier Roy, *The Failure of Political Islam*, trans. Carol Volk (Cambridge, MA: Harvard University Press, 1994); Yahya Sadowski, “Political Islam: Asking the Wrong Questions?,” *Annual Review of Political Science* 9 (2006): 215–240

12. Christian Smith, “Correcting a Curious Neglect, or Bringing Religion Back In,” in Christian Smith (ed.), *Disruptive Religion: The Force of Faith in Social Movement Activism* (New York: Routledge, 1996), 1–29, 5.

13. R. Scott Appleby, *The Ambivalence of the Sacred* (Lanham, MD: Rowman and Littlefield, 2000); Jose Casanova, *Public Religions in the Modern World* (Chicago, IL: University of Chicago Press, 1994).

14. Peter Beyer, *Religions in Global Society* (New York: Routledge, 2006); Casanova (see note 13 above); Dale F. Eickelman, “Trans-State Islam and Security,” in Susanna Hoeber Rudolph and James P. Piscatori (eds.), *Transnational Religion and Fading States* (Boulder, CO: Westview Press, 1996), 27–46.

15. Mark Juergensmeyer, “Sacrifice and Cosmic War,” in Mark Juergensmeyer (ed.), *Violence and the Sacred in the Modern World* (London: Frank Cass, 1992), 101–118; Mark Juergensmeyer, *Terror in the Mind of God: The Global Rise of Religious Violence* (Berkeley: University of California Press, 2003).

16. Jonathan Fox, “The Rise of Religious Nationalism and Conflict: Ethnic Conflict and Revolutionary Wars, 1945–2001,” *Journal of Peace Research* 41, no. 6 (2004): 715–731; Ron E. Hassner, “To Halve and to Hold: Conflicts Over Sacred Space and the Problem of Indivisibility,” *Security Studies* 12, no. 4 (2003): 1–33; Monica Toft, “Getting Religion?: The Puzzling Case of Islam and Civil War,” *International Security* 31, no. 4 (2007): 97–131. For a contrasting rationalist explanation, see Stathis Kalyvas, “Wanton and Senseless? The Logic of Massacres in Algeria,” *Rationality and Society* 11, no. 3 (1999): 243–285.

17. Audrey Kurth Cronin, “Behind the Curve: Globalization and International Terrorism,” *International Security* 27, no. 3 (2002/2003): 30–58; Moghadam, “Motives for Martyrdom” (see note 5 above); Bruce Hoffman, “Holy Terror: The Implications of Terrorism Motivated by a Religious Imperative,” *Studies in Conflict and Terrorism* 18, no. 4 (1995): 271–284; David C. Rapoport, “Fear and Trembling: Terrorism in Three Religious Traditions,” *American Political Science Review* 78, no. 3 (1984): 658–677.

18. Cronin (see note 17 above).

19. Jonathan Fox, “Is Islam More Conflict Prone Than Other Religions?: A Cross-Sectional Study of Ethnoreligious Conflict,” *Nationalism and Ethnic Politics* 6, no. 2 (2000): 1–24. For a comparison of religious violence across traditions, see Rapoport (see note 17 above); Jessica Stern, *Terror in the Name of God: Why Religious Militants Kill* (New York: Ecco, 2003).

20. Toft (see note 16 above); Olivier Roy, *Globalized Islam: The Search for a New Umma* (New York: Columbia University Press, 2004).

21. Bloom (see note 3 above); Pape (see note 3 above).

22. Asal and Rethemeyer (see note 5 above); Masters (see note 3 above).

23. Moghadam, “Motives for Martyrdom” (see note 5 above); Piazza, “Is Islamist Terrorism More Dangerous?” (see note 5 above).

24. For a discussion of various terrorist group strategies, see Andrew Kydd and Barbara F. Walter, “The Strategies of Terrorism,” *International Security* 31, no. 1 (2006): 49–80. For an example of the rationality of suicide attacks, see Dipak K. Gupta and Kusum Mundra, “Suicide Bombing as a Strategic Weapon: An Empirical Investigation of Hamas and Islamic Jihad,” *Terrorism and Political Violence* 17, no. 4 (2005): 573–598.

25. Marc Sageman, *Understanding Terror Networks* (Philadelphia: University of Pennsylvania Press, 2004); Max Abrahms, “What Terrorists Really Want: Terrorist Motives and Counterterrorist Strategy,” *International Security* 32, no. 4 (2008): 78–105; Erica Chenoweth, “Democratic Competition and Terrorist Activity,” *Journal of Politics* 72, no. 1 (2010): 16–30.

26. This can be seen in several works, although the specific manner in which they operationalize this concept varies. Cronin (see note 17 above); Jonathan Fox and Shmuel

Sandler, *Bringing Religion into International Relations* (New York: Palgrave MacMillan 2004); Mohammed M. Hafez, "Armed Islamist Movements and Political Violence in Algeria," *Middle East Journal* 54, no. 4 (2000): 572–591; Hoffman, "Holy Terror" (see note 17 above); Juergensmeyer, *Terror in the Mind of God* (see note 15 above); Moghadam, "The Salafi-Jihad as a Religious Ideology" (see note 11 above); Daniel Philpott, "Explaining the Political Ambivalence of Religion," *American Political Science Review* 101, no. 3 (2007): 505–525.

27. Hoffman, "Holy Terror" (see note 17 above); Moghadam, "The Salafi-Jihad as a Religious Ideology" (see note 11 above).

28. Abrahms (see note 25 above); Sageman (see note 25 above); Stern (see note 19 above).

29. For a discussion in the context of general social movements, see Smith (note 12 above).

30. Robert D. Benford and David A. Snow, "Framing Processes and Social Movements: An Overview and Assessment," *Annual Review of Sociology* 26 (2000): 611–639; Sidney Tarrow, *Power in Movement: Social Movements and Contentious Politics* (New York: Cambridge University Press, 1998).

31. While most studies emphasizing ideology do not point specifically to the framing process, this is generally in line with their approach. Some works in the social movement tradition, however, do point to framing when discussing religious violence. See Mohammed M. Hafez, "From Marginalization to Massacres: A Political Process Explanation of GIA Violence in Algeria," in Quintan Wiktorowicz (ed.), *Islamic Activism: A Social Movement Theory Approach* (Bloomington, IN: University of Indiana Press, 2004), 37–60; David A. Snow and Robert C. Byrd, "Ideology, Framing Processes and Islamic Terrorist Movements," *Mobilization: An International Journal* 12, no. 2 (2007): 119–136.

32. For a broader discussion of this dynamic, see Ethan Bueno de Mesquita and Bruce Dickson, "The Propaganda of the Deed: Terrorism, Counterterrorism and Mobilization," *American Journal of Political Science* 51, no. 2 (2007): 364–381; Kydd and Walter (see note 24 above). For an application of outbidding to religious violence, see Toft (see note 16 above).

33. Data is from LCDR Phillip Kapusta, U.S. Navy, "Suicide Bombers in CONUS," School of Advanced Military Studies Monograph, AY-06-07, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA470697&Location=U2&doc=GetTRDoc.pdf> (accessed 10 November 2008), and email correspondence between Kapusta and the author, 21 January 2009. In order to assess the reliability of the dataset, the author cross-referenced the dataset with the dataset maintained by the Chicago Project on Security and Terrorism, available at <http://cpost.uchicago.edu/>. When the models were re-run using only the attacks included in the latter the results were unchanged.

34. For example, according to the GTD's data collection methodology, there may be some issues with cross-time comparison. See "Data Collection Methodology," START, <http://www.start.umd.edu/gtd/using-gtd/> (accessed 4 November 2010.)

35. Tanja Ellingsen, "Toward a Revival of Religion and Religious Clashes?," *Terrorism and Political Violence* 17, no. 3 (2005): 305–332; Walter Enders and Todd Sandler, "Is Transnational Terrorism Becoming More Threatening?," *Journal of Conflict Resolution* 44, no. 3 (2000): 307–332; Jonathan Fox, "Ethnoreligious Conflict in the Third World: The Role of Religion as a Cause of Conflict," *Nationalism and Ethnic Politics* 9, no. 1 (2003): 101–125; Toft (see note 16 above).

36. This is preferable to group year as the observation, as several groups launched multiple attacks per year; reducing this to one observation a year would result in a loss of information.

37. START is a U.S. Department of Homeland Security-funded research center based at the University of Maryland. START, "Terrorist Organization Profiles," <http://www.start.umd.edu/start/data/tops/> (accessed 2 November 2008.)

38. Fox, "Ethnoreligious Conflict in the Third World" (see note 35 above); Susanna Pearce, "Religious Rage: A Quantitative Analysis of the Intensity of Religious Conflicts," *Terrorism and Political Violence* 17, no. 3 (2005): 333–352; Toft (see note 16 above).

39. See Asal and Rethemeyer, "The Nature of the Beast" (see note 5 above); Aaron M. Hoffman, "Voice and Silence: Why groups take credit for acts of terror," *Journal of Peace Research* 47, no. 5 (2010): 615–626; Moghadam, "Motives for Martyrdom" (see note 5 above); Philpott (see note 26 above); Piazza, "A Supply-Side View of Suicide Terrorism" (see note 5 above); Piazza, "Is Islamist Terrorism More Dangerous?" (see note 5 above).

40. Based on START data. See Appendix for coding of groups. There are some possible issues with the distinction between ethnoreligious and fundamentalist groups; the numerous robustness checks to which the models are subjected, however, should account for any possible effects of group coding.

41. The study also runs a robustness check that includes unknown attacks, with a dummy variable indicating the perpetrator for an attack was unknown.

42. Information on the HDI can be found in the UNDP Human Development Reports. See <http://hdr.undp.org/en/statistics/data/> for the data specifically “HDI Trends and Indicators (1980–2007).”

43. The use of multiple imputation (MI) to correct for missing data is likely inappropriate for this data, as HDI is not collected in countries with severe conflicts or poor access, indicating the data is “Not Ignorable” data and complicating MI. Gary King, James Honaker, Anne Joseph, and Kenneth Scheve, “Analyzing Incomplete Political Science Data: An Alternative Algorithm for Multiple Imputation,” *American Political Science Review* 95, no. 1 (2001): 49–69.

44. Jose Antonio Cheibub, Jennifer Gandhi, and James Raymond Vreeland, “Democracy and Dictatorship Revisited,” *Public Choice* 143, nos. 1–2 (2010): 67–101; James Raymond Vreeland, “The Effect of Political Regime on Civil War: Unpacking Anocracy,” *Journal of Conflict Resolution* 52, no. 3 (2008): 401–425.

45. The data is available at https://netfiles.uiuc.edu/cheibub/www/DD_page.html (accessed 18 May 2010.)

46. Alberto Alesina et al., “Fractionalization,” *Journal of Economic Growth* 8, no. 2 (2003): 155–194.

47. Data is available at http://www.anderson.ucla.edu/faculty_pages/romain.wacziarg/papersum.html (accessed 9 June 2010.) Data is based on the most recent year available. Because there are some concerns over whether this variable adequately captures politically-salient ethnic divisions, a robustness check is also run with this variable removed.

48. The specific variable used is the “emin5” variable. “The Religion and State Project,” <http://www.religionandstate.org/> (accessed 8 December 2009.)

49. Data is taken from Nils Petter Gleditsch, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Hävard Strand, “Armed Conflict 1946–2001: A New Dataset,” *Journal of Peace Research* 39, no. 5 (2002). Data is available at http://www.pcr.uu.se/research/UCDP/data_and_publications/datasets.htm.

50. Because of possible issues of collinearity, a robustness check is also run with *CI* removed.

51. Pape (see note 3 above).

52. For instances of separatist unrest, attacks are coded as “Occupied” if the suicide terrorist attacks are tied to the separatist tension.

53. The international/transnational dummy variable is coded as 1 if an attack occurred outside a group’s home country or if the attack was by a transnational group. The variable for *Success* is coded as 1 if the attack caused no deaths, while the variable for unknown groups is coded as 1 if the perpetrator of an attack was unknown. And the variable for *Target* is coded as 0 if the target was civilian, 1 if it was governmental, and 2 if it was military.

54. All calculations performed using STATA 11. The dataset, do-files, and an appendix with robustness checks and further information on the variables are available upon request.

55. See Christopher J. W. Zorn, “Generalized Estimating Equation Models for Correlated Data: A Review with Applications,” *American Journal of Political Science* 45, no. 2 (2001): 470–490.

56. The variable for group size is *Ordsiz* from the BAAD1 dataset developed by Asal and Rethemeyer. See Asal and Rethemeyer, “The Nature of the Beast” (see note 5 above), and Project on Violent Conflict Center’s website, “Project on Violent Conflict,” <http://www.albany.edu/pvc/> (accessed 28 February 2011.)

57. When *Religious Ideology* is removed from the model in Models 4 and 5 *Muslim Group* is no longer significant.

58. In the robustness check for Model 2 that controlled for group size, *Religious Ideology* was significant at .052. This is nearly at the .05 threshold significance, and an alternative version of this control variable—accounting for an ambiguity in transferring coding to the

Kapusta dataset—resulted in significance at the .05 level. *Religious Ideology* was significant in the other two models with this control variable, though, so this does not undermine the study's findings.

59. Anne E. Sartori, "An Estimator for Some Binary-Outcome Selection Models without Exclusion Restrictions," *Political Analysis* 11, no. 2 (May 2003): 111–138; Beth Simmons and Daniel Hopkins, "The Constraining Power of International Theories: Theory and Methods," *American Political Science Review* 99, no. 4 (2005): 623–631.

60. Patrick A. Puhani, "The Heckman Correction for Sample Selection and Its Critique," *Journal of Economic Surveys* 14, no. 1 (2000): 53–67.

61. Piazza has found some support for occupation's significance, but also points to group beliefs. Piazza, "A Supply-Side View of Suicide Terrorism" (see note 5 above).

62. Due to space considerations, Table 2 contains the findings from the logit and multinomial logit tests for *Religious Ideology* only.

63. See Alexander George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge, MA: MIT Press, 2005).

64. For a discussion of counter-framing, see Benford and Snow (see note 30 above).

65. Daniel Philpott, "Explaining the Political Ambivalence of Religion," *American Political Science Review* 101, no. 3 (2007): 505–525.

66. *Ibid.*; Appleby (see note 13 above); Casanova (see note 13 above).

Appendix: List of religious and non-religious terrorist group coding

Group name	Country(ies) of operation	Ideology
Abu Hafs ^c	Jordan	Religious (Fundamentalist)
Abu Hafs ^{ac}	United Kingdom	Religious (Fundamentalist)
Amal	Lebanon	Non-religious (Nationalist)
Ansar al-Islam	Iraq	Religious (Fundamentalist)
Ansar Allah	Argentina	Religious (Fundamentalist)
Ansar Allah ^{ac}	Iraq	Religious (Ethnoreligious)
Ansar Allah ^a	Panama	Religious (Fundamentalist)
Ansar al-Sunna	Iraq	Religious (Fundamentalist)
Armed Islamic Group	Algeria	Religious (Fundamentalist)
al-Aqsa ^c	Iraq	Religious (Fundamentalist)
Arab Resistance Army	Portugal	Non-religious (Nationalist)
Arab Resistance	Iraq	Non-religious (Nationalist)
al-Assirat al-Mujahideen	Morocco	Religious (Fundamentalist)
Babbar Khalsa International	India	Non-religious (Nationalist)
"Chechen Separatists" ^b	Russia	Non-religious (Nationalist)
al-Dawa ^c	Kuwait	Religious (Ethnoreligious)
al-Dawa ^{ac}	Lebanon	Religious (Ethnoreligious)
DHKP-C	Turkey	Non-religious (Nationalist)
Fatah	Israel/Palestine	Non-religious (Nationalist)
al-Gamaah ^c	Croatia	Religious (Ethnoreligious)
al-Gamaah ^{ac}	Pakistan	Religious (Ethnoreligious)

(Continued)

Appendix: Continued

Group name	Country(ies) of operation	Ideology
Hamas	Israel/Palestine	Religious (Ethnoreligious)
Hizballah	Argentina, Kuwait, Lebanon	Religious (Ethnoreligious)
Hizb-ut-Tahrir ^c	Uzbekistan	Religious (Fundamentalist)
Hizbul Mujahideen	Pakistan	Non-religious (Nationalist)
Islami Chhatra Shibir	Bangladesh	Religious (Fundamentalist)
“Iraqi military” ^b	Iraq	Non-religious (Nationalist)
Islamic Army in Iraq	Iraq	Religious (Ethnoreligious)
al-Islambouli	Pakistan	Religious (Ethnoreligious)
Islamic Glory	Egypt	Religious (Fundamentalist)
Islamic Jihad Union	Uzbekistan	Religious (Ethnoreligious)
Islamic Movement of Uzbekistan	Uzbekistan	Religious (Ethnoreligious)
Jamatul Mujahidin	Bangladesh	Religious (Fundamentalist)
Jaysh-e-Mohammed	India	Religious (Ethnoreligious)
Jemaah-Islamiyyah	Indonesia	Religious (Fundamentalist)
al-Jihad	Pakistan	Religious (Ethnoreligious)
Lashkar-e-Jhangvi	Pakistan	Non-religious (Nationalist)
Lashkar-e-Tayyiba	Pakistan	Religious (Ethnoreligious)
LLO ^c	Lebanon	Non-religious (Nationalist)
Levant Army ^c	Qatar	Non-religious (Nationalist)
Liberation Tigers of Tamil Eelam	Sri Lanka	Non-religious (Nationalist)
al-Mansoorain	India	Religious (Ethnoreligious)
Mujahideen Army	Iraq	Religious (Fundamentalist)
Palestinian Islamic Jihad	Israel/Palestine	Religious (Ethnoreligious)
“Partisans” ^b	Iraq	Non-religious (Nationalist)
PKK	Turkey	Non-religious (Nationalist)
Popular Front for the Liberation of Palestine	Israel/Palestine	Non-religious (Nationalist)
al-Qaeda	Multiple Countries	Religious (Fundamentalist)
al-Qaeda in Iraq/ Tanzim Qaidat/ al-Tawhid Wa’al-Jihad	Iraq	Religious (Ethnoreligious)
Rasul Makasharipov (Dagestani Shari’ah Jamaat)	Russia	Non-religious (Nationalist)
Revolutionary Armed Forces of Colombia	Colombia	Non-religious (Leftist)

(Continued)

Appendix: Continued

Group name	Country(ies) of operation	Ideology
Riyadus-as-Saliheen	Russia	Religious (Ethnoreligious)
Mujahideen Shura Council	Iraq	Religious (Ethnoreligious)
al-Sirat al-Mustaqim ^c	Morocco	Religious (Fundamentalist)
Syrian Social Nationalist Party	Syria	Non-religious (Nationalist)
Tanzim	Israel	Non-religious (Nationalist)
al-Tawhid	Egypt	Religious (Fundamentalist)

^aThis group is distinct from other group(s) of the same name.

^bGroup name in quotations indicates a generic description, rather than specific group name.

^cGroup not classified in START data. The inclusion of Hizb ut-Tahrir is based on the dataset's sources, although the attribution of the attacks to this group may be faulty or the result of regime misinformation. As there is only one attack by this group in the dataset, the effect on the results should be minimal.