

Analysis of Al-Qaeda Terrorist Attacks to Investigate Rational Action

by Daniel P. Hepworth

Abstract

Many studies have been conducted to demonstrate the collective rationality of traditional terrorist groups; this study seeks to expand this and apply collective rationality to Islamic terrorist groups. A series of statistical analyses were conducted on terrorist attacks carried out by Al-Qaeda and affiliated terrorist organization; these were then compared to two more conventional terrorist groups: the Euskadi Ta Askatasuna (ETA) and the Liberation Tigers of Tamil Eelam (LTTE). When viewed through the context of the groups' various motivations and objectives, the results of these analyses demonstrates collective rationality for those terrorist groups examined.

Introduction

After 9/11, many people in the West believed that anyone who would commit an act of terrorism, especially suicide terrorism, must be deranged; research has shown this not to be the case. [1] Most research indicates that terrorists are not insane, and some research indicates that many of them are generally neither poor nor uneducated, although these debates are certainly not settled. [2] Most terrorist groups do not attack indiscriminately. As Brian M. Jenkins said, "terrorists want a lot of people watching [...] not a lot of people dead." [3] Some groups will even issue public apologies if an attack kills too many, especially civilians. [4] Many terrorist groups dissolve not because of military might but because the group either attains (some of) its goal(s) or after continued failure, its members abandon the tactic of terrorism. [5] Each of these choices indicates the rationality of terrorists groups. [6]

However, some thirty years after his initial statement, Brian Jenkins' more recent statement that *some* terrorist groups want many people watching *and* many people dead [7] is consistent with the growth of mass casualty terrorist attacks and the fact that Osama bin Laden sought nuclear weapons to use against the Western world. [8] James Piazza [9] found that terrorist groups motivated by religious and/or millenarian goals (especially those which are Islamic) are much more dangerous than more traditional terrorist organisations.

This article examines terrorist attacks carried out by Al-Qaeda and affiliated Islamic, religiously motivated terrorist groups (hereafter referred to as the Al-Qaeda network, AQN), and seeks to establish that the AQN operates in a rational fashion. In order to clearly demonstrate the rationality of the AQN in the context of its character as a religiously motivated terrorist

organisation, their operations are compared to those of the Basque Euskadi Ta Askatasuna (ETA) and the Liberation Tigers of Tamil Eelam (LTTE), both more conventional terrorist groups.

Defining (Suicide) Terrorism

The most cursory examination of the literature will show that there is no universally accepted definition terrorism. However, after examining a wide range of definitions and drawing upon commonly occurring elements, one has been constructed for the purpose of this article. [10]:

Terrorism is a violent act (or threat of one) carried out by a sub-state individual or group against a civilian population (including police, other governmental workers and non-combat-ready military personnel) for the purpose of striking fear in the surviving population in order to bring about political change.

The other important term on which a definition needs to be settled is suicide terrorism. Crenshaw defines suicide terrorism as “*acts of terrorism that require the death of the perpetrator for successful implementation.*” [11] Upon examination of the literature, it is clear that while use of this definition is not unanimous, [12] it is by far the most accepted and as such, used for this research. [13]

Rational Action Theory

At present, one popular theoretical approach to explain collective terrorist behavior is rational action theory. [14] A good deal of research has found that terrorist groups act in a “collectively rational” manner, learning from failure and from one another. [15] They apply cost-benefit concepts to examine the risks and rewards of their potential choices, taking what is seen as the most efficient route to reach their goals. [16] Rationality theorists refer to this type of instrumental rationality, as “an instrumental relationship between ends and means.” [17] This approach has been successfully applied to terrorist hijackings and kidnappings, [18] the operational strategies of terrorists in Chechnya [19], Palestinian terrorists in Israel, [20] and suicide terrorism in general. [22]

Two caveats should be noted in the discussion of the application of rational action theory to terrorist organisations. First, as with any theoretical explanation for a phenomenon, research exists that raises questions about the applicability of this particular theory that should be considered. [23] Gregory Miller makes a very valid case for questioning not only the rationality of terrorist organisations, but also the value of applying rationality theories. [24] He points out that different people within an organisation have different goals (perhaps different from those of the organisation itself) and that “rational” behavior can be rooted in either hedonistic self-interest or socially conscious morality, which means that almost any behavior may be explained as “rational.”

Second, no theory should be construed as a catchall explanation for all behavior. As applied to terrorist organisations, rational action theory is used to explain, at least in part, the behavior of the group as sanctioned by its leaders. However, decisions may be made at any level of the organisation and each of these decision-makers may be aware of different information, leading to different “rational” decisions. Additionally, not all decisions are made rationally, especially when made by those who are reactive and/or emotionally compromised. These concerns must be kept in mind when considering this and other research on the rationality of any organisation.

Terrorist Groups

The present study focuses on the unique nature of Al-Qaeda and related groups. Al-Qaeda has the general, short-term goal of repulsing the Western influence allegedly assaulting the Muslim world while its long-term goal is the complete restoration of the caliphate and the establishment of a worldwide Muslim community. [25] These goals set the Al-Qaeda Network (AQN) apart from traditional terrorist groups, which are typically motivated by more tangible objectives, such as national separation from an existing state. [26] The nature of these objectives and other factors tend to force conventional terrorist groups to limit the number of casualties they inflict, especially on civilians lest they risk alienating their support-base. In this sense, the traditional terrorist group is almost like a politician who cannot take too many unfavourable actions for fear of alienating voters.

Al-Qaeda members have no compunction against mass killings. Sheikh bin Laden made it clear that God wants them to slay the infidels and that God will reward this behaviour on earth and in the hereafter. This assumed obligation to serve the will of God combined with His command to slay nonbelievers [27] distinguishes this religious Islamist terrorist group and its affiliates from most other terrorist groups.

ETA (Euskadi ta Askatasuna – Basque Fatherland and Freedom) and the LTTE (Liberation Tigers of Tamil Eelam in Sri Lanka) are/were traditional non-religiously motivated terrorist organisations, seeking a separate homeland for their respective peoples. Both groups were relatively active during most of the time under consideration, making them sound choices as comparison groups. The LTTE was also specifically selected because it is one of the few examples of a more conventional terrorist organisation, which utilised suicide bombings. [28]

Study Hypotheses

As an indication of collective rationality on the part of the AQN, it is hypothesised that due to the group’s goals and methods of achieving those objectives, bombings conducted by the AQN will, on average, result in significantly more fatalities than those carried out by the comparison groups. It is also surmised that the AQN will attack civilian targets at a rate higher than other

target types and that attacks on these targets will, on average, result in the highest number of fatalities. Due to their size, prevalence, and lack of direct governmental strategic value, civilian targets are not only ripe with victims but security protection is most often minimal at best, making them easier targets for the AQN. It is expected that bombings conducted by the comparison groups will, in contrast, focus more on governmental targets in both frequency and severity, given their more traditional motivation of creating terror and demonstrating governmental weakness while creating a relatively low number of casualties.

Additionally, it is hypothesised that both groups which utilize suicide bombings, the AQN and LTTE, will conduct them primarily against specific target types: the AQN against civilian targets in order to create maximum damage and the LTTE against military targets, applying the presumably most effective method against the hardest and most valuable target type. It can be assumed that any terrorist group (especially one steeped into a particular version of Islam, given its condemnation of suicide) would not use such a tactic unless it was effective. Thus, according to rational action theory, this technique, would not be used unless it granted large dividends, primarily in the form of casualties.

Data

Data for this study was taken from the Global Terrorism Database (GTD), maintained by the National Consortium for the Study of Terrorism and Responses to Terrorism (START) at the University of Maryland (<http://www.start.umd.edu/gtd/>). The GTD defines terrorism as “the threatened or actual use of illegal force and violence by a non- state actor to attain a political, economic, religious, or social goal through fear, coercion, or intimidation”. [29]

The present study examines more terrorist groups than just Al-Qaeda proper. The GTD contains a series of Terrorist Organisation Profiles (TOPs), which were used to compile a list of 18 Al-Qaeda-associated organisations, [30] which was utilized by this study. These organisations make up what is referred to here as the aforementioned Al-Qaeda Network (see Appendix A for a list of its members).

A number of factors were used to screen out certain attacks. Only attacks that have been classified as “unambiguous” by the GTD were used. Second, only attacks carried out by the AQN between the beginning of 2002 and the end of 2007 were used. There were few Al-Qaeda attacks before 11 September 2001, with a sharp increase in the period that followed. At the time this study began, GTD data ran through 2007, making that the cut-off point. Third, only bombings were examined in order to ensure a level of consistency across all attacks, as the number of victims was a primary factor in this study.

In order to allow for comparisons of the attacks carried out by the AQN, similar data was recorded for ETA and LTTE attacks. The data covering ETA and LTTE attacks differed slightly

from those of the AQN. First, in order to obtain a sufficient sample size, ETA data was collected between 1996 and 2007. Also, due to statistical reasons, attacks carried out by the LTTE were limited to the years of 2005 – 2007. There is nothing inherently important about the 2002 – 2007 timeframe of AQN attacks; this is merely when they became the most active, thus minimising concern over the differing attacks dates for the comparison groups.

Variables and Coding

For attacks carried out by each terrorist group, the year of the attack was recorded. Attacks were coded as successful or not (e.g. the bomb did or did not detonate), and suicide or not. The GTD defines a suicide attack as an attack “where there is evidence that the perpetrator did not intend to escape the attack alive.” [31] This definition does not fit exactly with the preferred definition of suicide terrorism, which requires the death of the attacker, but it works here all the same, especially as this study will only consider bombings. This definition is deemed acceptable here because in most situations, it is incredibly difficult to determine whether or not the terrorists intended to die; thus the best that can be done is to look to the evidence surrounding the attack and make an educated guess.

The classification of the victim type was recorded for each attack as military, police, other government, and civilian. For the AQN data only, the country in which the attack occurred was recorded as was the determination of whether or not the United States was a target. For the ETA and LTTE data, all attacks occurred in one country only (Spain and Sri Lanka, respectively) and neither group ever attacked an American target. The number of victims from an attack was coded in two ways: fatalities and injuries.

Data Issues and Transformations

After variable analysis, the fatalities variable was used to determine the severity of the attack (in most analyses) due to the number of cases in which the number of injuries was unknown (in the AQN data 30 of 405 cases, or 7.41%, were missing for injuries compared to four of 405, 0.99%, for fatalities). A *z*-score analysis was run on the fatalities variable to test for outliers. The maximum *z*-score for the AQN data was high at 7.677, however, because of the nature of the data, the nature of the hypotheses, and the presumed accuracy of the data, these scores were left in place for the analysis. This must be kept in mind when reading the analyses and results. Also, the AQN fatalities variable had a skewness score of 4.147, due in large part to the high number of cases in which zero fatalities were reported, which dictated the use of negative binomial regression. The same issues with the fatalities variable occurred with the LTTE data and the same solution was applied.

In order to run regression analyses, two variables, target type and country, were recoded. The initial target type coding was compressed into a dichotomous variable for the regression analyses. As military, police, and other government classifications are all government targets and considering that multiple hypotheses look specifically at civilian targets, this variable was recoded into the binary categories of all government and civilian. [32]

The country in which AQN attacks occurred was used strictly as a control variable. This variable was divided into two categories: countries with ten or more attacks and countries with less than ten, which were grouped together as an “other” category. This allowed for a solid separation of countries with a practically significant number of attacks and those with only a few. Afghanistan, Indonesia, Iraq, Pakistan, and the Philippines fell into the former category and were dummy coded (with Afghanistan used as the reference point). [33] The remaining “other countries” response was also added to the dummy coding.

One issue with the ETA data was that of the 203 attacks analyzed, only 19 resulted in any fatalities, with a maximum number in any attack of three. Thus, the fatalities variable was dichotomized into either no fatalities or fatalities (i.e. 0 = no fatalities, 1 = fatalities). The injuries variable was also recoded (and used in one analysis, as explained later) into an ordinal level variable with four values of no injuries (0), few injuries (defined as 1-5), a medium number of injuries (defined as 6-25), and many injuries (defined as 26 and up, with a maximum score of 95).

Results

Descriptive Statistics

There were 405 recorded, categorized bombings carried out by the AQN in 17 countries between 2002 and 2007. Over half (216, 53.33%) took place in Afghanistan, followed by Iraq (70, 17.28%). Most were successful (388, 95.80%) and one-third (135, 33.33%) were suicide bombings. Almost half (191, 47.16%) were targeted at civilians (see Table I). The United States was targeted less than five percent of the time (18, 4.44%), none of the AQN attacks occurred within the borders of the United States during that time.

The ETA attacked civilian targets most often at 134 times (66.01%). Of the 203 attacks, 160 (78.82%) were successful. Fifty-two (34.43%) of 151 LTTE attacks were carried out against civilian targets and almost all attacks (142, 94.04%) were successful. While the LTTE did employ suicide attacks, it did so at a very low rate (7 of 151, 4.64%).

Table I: *Frequency of attack by target types*

Target Type	AQN		ETA		LTTE	
	<i>n</i>	Percent	<i>n</i>	Percent	<i>n</i>	Percent
Military	57	14.07	8	3.94	28	18.54
Police	75	18.52	20	9.85	51	33.77
Other Government	81	20.00	36	17.53	20	13.25
Civilian	191	47.16	134	66.01	52	34.43
Missing	1	0.25	5	2.46	0	0
Total	405		203		151	

As expected, attacks carried out by all groups produced far more injuries than fatalities on average. Al-Qaeda network attacks produced the most fatalities on average, followed by the LTTE, and ETA (see Table II).

Table II: *Descriptive variables of fatalities*

Variable	<i>N</i>	Mean	SD	Minimum	Maximum	Skew
Fatalities, AQN	401	8.69	19.71	0	160	4.147
Fatalities z-score, AQN	401	0	1	-0.4411	7.677	4.1.47
Fatalities, ETA	203	0.13	0.44	0	3	3.863
Fatalities z-score, ETA	204	0	1	-0.293	6.564	3.863
Fatalities, LTTE	150	3.14	8.02	0	64	5.995
Fatalities z-score, LTTE	150	0	1	-0.391	7.582	5.995

Chi-Square Analyses

Nonparametric chi-square analyses were conducted on the target type variable for each terrorist group. Significance was found in all tests (AQN, $\chi^2(3, 404) = 110.020, p < 0.001$; ETA $\chi^2(3, 198) = 200.303, p < 0.001$; and LTTE $\chi^2(3, 151) = 20.894, p < 0.001$). Standard two-variable chi-square analyses were conducted to test the relationship between suicide and target type for AQN and LTTE attacks. A statistically significant relationship was found for AQN attacks ($\chi^2(3, 404) = 13.554, p = 0.004$) with military targets attacked by suicide bombers at the highest percentage (28/57, 49.12%) and civilian targets were struck by this tactic at the smallest percentage (48/190, 25.26%). The same test with LTTE data also yielded significance ($\chi^2(3, 151) = 10.544, p = 0.014$) with military and other government targets each attacked by suicide bombers three times, civilians once, and police never (see Table III).

Negative Binomial Regression Analysis of AQN Attacks

A negative binomial regression analysis was conducted to test the lethality of AQN attacks (fatalities) against suicide and target type. Control variables included the year of the attack, the country in which the attack occurred, whether or not the United States was the intended target of an attack, and success. After verifying that the data passed the necessary statistical assumptions, [34] overall significance was found (likelihood ratio chi-square = 227.489, overall $p < 0.001$). Both suicide and target type were found to be statistically significant ($b = -1.017$, Wald chi-square = 33.998, $p < 0.001$ and $b = -0.730$, Wald chi-square = 15.871, $p < 0.001$, respectively). [35] These results indicate that, controlling for the other factors, suicide attacks carried out by the AQN produced more fatalities than non-suicide attacks and that AQN attacks on civilian targets generated a significantly higher number of fatalities than those against other targets. The negative value of the predictor coefficient, b , as seen in this analysis and the regression of LTTE attacks (as seen in Tables IV and VI, respectively) for variables, such as success, suicide, and target type, indicate *positive* correlation of the variables due to the logarithmic transformation of the dependent variable inherent in negative binomial regression. Other variables that were found to be significant contributors to the number of fatalities included success, whether or not the United States was the target of the attack, [36] and various countries (but not all of them) (see Table IV).

Table III: *Chi-Square results*

Terrorist Group	Variables	Pearson Chi-Square*	Likelihood Ratio	P	Cramer's V	n
AQN	Target Type ^a	110.020*		<0.001		404
AQN	Suicide by Target Type	13.554*	13.461	0.004	0.183	403
ETA	Target Type ^a	200.303*		<0.001		198
LTTE	Target Type ^a	20.984*		<0.001		151
LTTE	Suicide by Target Type	10.544*	10.810	0.014	0.264	151

*Significant with $\alpha = 0.5$.

^a Single variable nonparametric chi-square analysis.

Table IV: *Negative binomial regression, AQN^a*

Variable as related to fatalities	<i>b</i>	SE	Wald Chi-Square	<i>P</i>
(Constant)	5.118	0.951	28.942*	<0.001
Success	-1.863	0.591	9.951*	0.002
Suicide	-1.017	0.175	33.998*	<0.001
US Target	1.157	0.446	6.725*	0.010
Target Type ^b	-0.730	0.183	15.871*	<0.001
Indonesia ^c	-1.427	0.447	10.210*	0.001
Iraq ^c	-1.543	0.215	51.517*	<0.001
Pakistan ^c	-0.435	0.324	1.806	0.179
Philippines ^c	0.448	0.339	1.748	0.186
Other Countries ^c	-1.082	0.251	18.551*	<0.001
Year	0.016	0.055	0.085	0.770

*Significant with $\alpha = .05$.

^aLikelihood Ratio Chi-Square = 227.489, overall $p < 0.001$.

^bVariable Target Type dichotomized.

^cDummy coded variables for the variable Country.

Multivariate Regression Analyses of ETA Attacks

A binary logistic regression analysis was conducted on ETA attacks with the dichotomized fatalities variable serving as the dependent variable (DV), the dichotomized target type variable the Independent Variable (IV), and the year of the attack and success as control variables. However, the standard error was 5962.537, due to the extreme number of zeroes in the data set. The error-ridden results of this test will not be reported; instead, it will simply be said that it is clear that most ETA attacks did not produce any fatalities.

Due to the limitations of the fatalities variable in this data set, a second multivariate regression analysis was conducted to better understand how severely the ETA attacked each target type. This linear regression was conducted with the same independent and control variables as the previous regression, but with the recoded injuries variable (as described above) as the DV. Changing the DV in this fashion is clearly not ideal because it cannot be used to serve as a direct comparison between the ETA and AQN. Those killed in a terrorist bombing are often specifically targeted either as individuals or as members of a group, where many of those who are injured are often simply in the wrong place at the wrong time. The same could be said of additional fatalities from an attack, but this is more common among those wounded but not killed. That said, given the limitations of the data, this analysis does allow for a better understanding of ETA tactics. After verifying that the DV passed the necessary assumptions and requirements, [37] the regression

was run and overall significance was found, $R^2 = 0.077$, $F(3, 198) = 5.349$, $p = 0.001$. Significance was also found with the IV, $\beta = -0.192$, $t(198) = -2.690$, $p = 0.008$. This analysis indicates that governmental targets suffered significantly more injuries than civilian targets (see Table V).

Table V: *Linear regression, ETA^a*

Variable as related to injuries, recoded	<i>b</i>	SE	β	<i>t</i> *	<i>p</i>
(Constant)	0.495	0.204		2.423*	0.016
Success	0.323	0.134	0.176	2.421*	0.016
Target Type ^b	-0.301	0.112	-0.192	-2.690*	0.008
Year	0.028	0.016	0.130	1.757	0.081

*significant with $\alpha = .05$.

^aAdjusted $R^2 = .357$, Overall $p = 0.001$.

^bvariable Target Type (dichotomized).

Negative Binomial Regression Analysis of LTTE Attacks

A final negative binomial regression analysis was conducted on the LTTE data testing similar variables (DV = fatalities, IV = dichotomized target type and suicide, control variables = success and a dummy coded year variable). Statistical assumptions were verified and the overall model was found significant (likelihood ratio chi-square = 85.716, overall $p < 0.001$). Suicide and target type were significant ($b = -1.206$, Wald chi-square = 7.769, $p = 0.005$ and $b = -1.225$, Wald chi-square = 33.138, $p < 0.001$, respectively). [38] Suicide attacks were again more lethal and attacks against civilian targets begot the most fatalities (see Table VI).

Table VI: *Negative binomial regression, LTTE^a*

Variable as related to fatalities	<i>b</i>	SE	Wald Chi-Square	<i>p</i>
(Constant)	1.702	0.6334	7.218*	0.007
Success	-1.284	0.5706	5.063*	0.024
Suicide	-1.206	0.4327	7.769*	0.005
Target Type ^b	-1.225	0.2128	33.138*	<0.001
2005 ^c	1.510	0.3915	14.884*	<0.001
2006 ^c	-0.375	0.2254	2.761	0.094

*Significant with $\alpha = .05$.

^aLikelihood Ratio Chi-Square = 85.716, overall $p < 0.001$.

^bVariable Target Type dichotomized.

^cVariable Year dummy coded with 2007 as reference.

Discussion

While several studies have found that terrorists groups differ significantly in their operations by their classifications, [39] our research supports the notion of rationality of the AQN. [40] This terrorist organisation, in order to wreak maximum havoc, used suicide bombings far more often and in doing so, created far more fatalities than other groups, even the LTTE. It was expected that the more traditional ETA would not use this tactic and that the LTTE, while certainly an anomaly insofar as this non-religious group used suicide bombings, utilized it at much lower rate as neither group sought to cause too many fatalities.

Attacks carried out by the Islamic religious AQN were far more deadly than those attacks carried out by either secular, conventional group. The regression analyses indicate that, all else being equal, attacks conducted against civilian created an especially high number of fatalities and, while the AQN attacked civilian targets at a lower rate than the ETA, the AQN did attack civilians more often than any other single target type. Once again, these results indicate rational action on the part of the AQN as the death of as many unbelievers as possible is required in order to attain both short- and long-term goals. Not only did the AQN kill far more individuals than conventional terrorist groups, but the most lucrative targets were attacked more often than any other.

One unexpected result was that the AQN utilised suicide bombings against military targets at the highest rate (49.12%) and civilian at the lowest (25.26%). One possible explanation for this comes from Daniel Byman [41] who noted the value of striking targets that demonstrate the weakness of the target government, namely highly secure areas. If suicide bombings are more successful (this study failed to confirm or deny this due to the low number of recorded unsuccessful attacks), then Byman's point may explain this finding. If the group believes a

successful attack on a hardened military target is valuable enough, it would use a tactic deemed to have the best chance of success. This may also be explained by the fact that the AQN may view suicide attacks against civilian targets as less necessary as these targets are softer and of lower risk.

Policy Implications

When combined with research of how terrorist groups have been successfully defeated in the past, this research suggests that counterterrorism policy applied to the AQN must be primarily designed in a combat-oriented fashion. [42] Diplomatic negotiations with religious terrorist groups have been historically unsuccessful and this research indicates that this trend will continue. When terrorists' goals are nothing short of global dominance, no amount of negotiation will appease them. Instead, coalition forces must continue to operate as they have with a combined effort to both destroy and contain the terrorists militarily and to remove, as much as possible, their support within local populations.

Next, civilian targets must be hardened. The AQN is targeting civilians at an alarming rate and with potentially devastating effect. Dynamic steps must be taken to protect valuable civilian locations, especially those that terrorists have struck in the past (e.g. airports, centers of economic activity).

Finally, this research suggests that Al-Qaeda's leadership truly aims at mass casualty attacks. And while bin Laden is dead, it would be foolish to believe the drive for obtaining weapons of mass destruction died with him. And while it is true that it is very difficult to obtain and use such weapons, [43] Al-Qaeda leadership is seeking them and this research strongly suggests that if they obtain even one such a device, it may be used. That stated, it is also possible that possession of such a weapon may cause the organisation to shift tactics, perhaps using it for deterrence or blackmail, such as the removal of Western troops from the region. It goes without saying that even though the odds against such an attack may be very small, if one were deployed against the United States the damage and number of casualties would likely reduce the 11 September 2011 attacks to a historical footnote.

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Appendix A: Terrorist groups of the Al-Qaeda Network (AQN)

Abu Hafs al Masri Brigades, Abu Sayyaf Group, Al-Qaeda [Core], Al-Qaeda in Levant and Egypt, Al-Qaeda in the Arabian Peninsula, Al-Qaeda Organisation in Islamic Maghreb, Al-Qaeda Organisation in the Land of Two Rivers (a.k.a. Al-Qaeda in Iraq), Ansar al Islam, Ansar al Sunna Army, Islamic State of Iraq, Islamic Movement in Uzbekistan, Jaish e Mohammed, Jemaah Islamiya, Jund al Sham, Laskar e Jhangvi, Salafia Jihadia, Takfir wa Hijra, Taliban, Tawhid and Jihad.

Notes

- [1] See Raymond R. Corrado, "A Critique of the Mental Disorder Perspective of Political Terrorism," *International Journal of Law and Psychiatry* 4 (1981): 293-309; Jerrold M. Post, "Terrorist Psycho-Logic: Terrorist Behavior as a Product of Psychological Forces," in: Walter Reich (Ed.). *Origins of Terrorism*. Washington, DC: Woodrow Wilson Center Press, 1998, 26; Walter Reich, "Understanding Terrorist Behavior: The Limits and Opportunities of Psychological Inquiry"; in: Idem, op. cit., 269.
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- [3] Brian M. Jenkins, "International Terrorism: A New Mode of Conflict," in: David Carlton and Carlo Schaerf (Eds.) *International Terrorism and World Security* New York: Halsted Press, 1975, 15-16.
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- [6] See Lisa M. McCartan et al., "The Logic of Terrorist Target Choice: An Examination of Chechen Rebel Bombings from 1997-2003," *Studies in Conflict and Terrorism* 31 (2008): 72-73.
- [7] Brian M. Jenkins, *Unconquerable Nation: Knowing Our Enemy Strengthening Ourselves*. Santa Monica, CA: RAND Corporation, 2006, 9; accessed July 6 2010, <http://www.rand.org/pubs/monographs/MG454.html>; see also: Ian O. Lesser, "Countering the New Terrorism: Implications for Strategy," in: Ian O. Lesser et al (Eds.) *Countering the New Terrorism*. Santa Monica, CA: RAND Publications, 1999, 87-91; accessed March 12, 2009, http://www.rand.org/pubs/monograph_reports/MR989/MR989_chap4.pdf.
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- [9] James A. Piazza, "Is Islamist Terrorism More Dangerous?: An Empirical Study of Group Ideology, Organisation, and Group Structure," *Terrorism and Political Violence* 21 (2009): 71-77.
- [10] Primary definitions came from the following: Brian M. Jenkins, "International Terrorism," 14; Benjamin Netanyahu, "Terrorism and the Media," in *Terrorism: How the West Can Win*, ed. Benjamin Netanyahu (New York: Avon Books, 1986), 9; Bruce Hoffman, *Inside Terrorism*. New York: Columbia University Press, 2006, 40; Boaz Ganor, *The Counter-Terrorism Puzzle: A Guide for Decision Makers*. New Brunswick, NJ: Transaction Publishers, 2008, 17.
- [11] Martha Crenshaw, "'Suicide' Terrorism in Comparative Perspective," in: Boaz Ganor (Ed.) *Countering Suicide Terrorism*. (New York: Anti-Defamation League, 2000, 21.
- [12] For other definitions and discussions of suicide terrorism see Robert Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism*. New York: Random House Trade Paperbacks, 2006, 10; Angel Rabasa et al., *The Lessons of Mumbai*. Santa Monica, CA: RAND Publications, 2009, 3, accessed June 3, 2009, http://www.rand.org/pubs/occasional_papers/2009/RAND_OP249.pdf.
- [13] Other studies on this topic which utilize a very similar definition include: Boaz Ganor, *The Counter-Terrorism Puzzle*, 140-141; Assaf Moghadam, "Suicide Terrorism, Occupation and the Globalization of Martyrdom: A Critique of Dying to Win," *Studies in Conflict and Terrorism* 29 (2006): 710-713; Yoram Schweitzer, "Suicide Terrorism: Development and Main Characteristics," in: Boaz Ganor (Ed.) *Countering Suicide Terrorism*. New York: Anti-Defamation League, 2000, 78.
- [14] Other names for this modified theory, which has also been applied to other collective actions, such as rioting, include rational actor theory and strategic logic theory. See Anthony Oberschall, "Explaining Terrorism," 27-30; Domenico Tosini, "A Sociological Understanding of Suicide Attacks," *Theory, Culture & Society* 26 (2009): 72-78; Jeff Victoroff, "The Mind of the Terrorist: A Review and Critique of Psychological Approaches," *Journal of Conflict Resolution* 49 (2005): 30-31.
- [15] Martha Crenshaw, "The Logic of Terrorism: Terrorist Behavior as a Product of Strategic Choice," in: Walter Reich (Ed.) *Origins of Terrorism*. Washington DC: Woodrow Wilson Center Press, 1998, 8.
- [16] Todd Sandler, John T. Tschirhart, and Jon Cauley, "A Theoretical Analysis of Transnational Terrorism," *The American Political Science Review* 77 (1983): 36-37.
- [17] Ofer Zwickel, "Al-Qaeda's Operations: Project Management Analysis," *Studies in Conflict and Terrorism* 30 (2007): 273-274.
- [18] Jorge Nef, "Some Thoughts on Contemporary Terrorism: Domestic and International Perspectives," in: John Carson (Ed.) *Terrorism in Theory and Practice: Proceedings of a Colloquium*. Toronto, ON: Atlantic Council of Canada 1978, 19. See also Martha Crenshaw, "The Psychology of Terrorism" An Agenda for the 21st Century," *Political Psychology* 21 (2000); Frank C. Zagare, "Rationality and Deterrence" *World Politics* 42 (1990), 240.
- [19] Laura Dugan, Gary LaFree, and Alex R. Piquero, "Testing a Rational Choice Model of Airline Hijackings" *Criminology* 43 (2005): 1056-1059; Todd Sandler, John T. Tschirhart, and Jon Cauley, "A Theoretical Analysis of Transnational Terrorism," 49-52; Margaret A. Wilson, "Toward a Model of Terrorist Behavior in Hostage-Taking Incidents," *Journal of Conflict Resolution* 44 (2000): 419-422.
- [20] Lisa M. McCartan et al., "Logic of Terrorist Target Choice," 67-73.
- [21] Hanne Eggen Roislien and Jo Roislien, "The Logic of Palestinian Terrorist Target Choice? Examining the Israel Defense Forces' Official Statistics on Palestinian Terrorist Attacks 2000-2004," *Studies in Conflict and Terrorism* 33 (2010): 140-145.
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[22] Robert Pape, *Dying to Win*. See also Donald Black, "The Geometry of Terrorism," *Sociological Theory* 22 (2004): 17-18; Martin Kramer, "The Moral Logic of Hizballah," in: Walter Reich (Ed.) *Origins of Terrorism*. Washington, DC: Woodrow Wilson Center Press, 1998, 144-146; Reuven Paz, "The Islamic Legitimacy of Suicide Terrorism," in *Countering Suicide Terrorism*, Boaz Ganor (Ed.) New York: Anti-Defamation League, 2000, 96-97.

[23] See Alessandro Orsini, "Poverty, Ideology and Terrorism: The STAM Bond" *Studies in Conflict and Terrorism* 35 (2012) 665-692, which argues that the ideology of the terrorist organisation can so much influence its members that behaviour may seem entirely irrational to an outside observer.

[24] Gregory D. Miller, "Terrorist Decision Making and the Deterrence Problem," *Studies in Conflict and Terrorism* 36 (2013): 132-151.

[25] Jason Burke, "Think Again: Al-Qaeda" *Foreign Policy* May 1, 2004, accessed April 1, 2010, http://www.foreignpolicy.com/articles/2004/05/01/think_again_al_qaeda; Daniel Byman, "Al-Qaeda as an Adversary: Do We Understand Our Enemy?" *World Politics* 56 (2003): 143-148; Christina Hellmich, "Al-Qaeda: Terrorist, Hypocrites, Fundamentalists? The View from Within," *Third World Quarterly* 26 (2005): 42-45; Lawrence Wright, *The Looming Tower*, 152, 158-159; see Bruce Lawrence (Ed.) *Messages to the World: The Statements of Osama bin Laden*. London: Verso, 2005; "FBIS report: Compilation of Usama bin Laden Statements 1994 - January 2004," accessed July 13, 2009, <http://www.fas.org/irp/world/para/ubl-fbis.pdf>.

[26] See Gregory D. Miller, "Confronting Terrorism: Group Motivation and Successful State Policies," *Terrorism and Political Violence* 19 (2007), 335-336.

[27] According to the religious standards held by AQN members, unbelievers include many Muslims, especially Shi'ites. For example, see Suad al-Salhy and Missy Ryan, "Iraq holds landmark vote, attacks kill 38," *Reuters*, March 7, 2010, accessed May 21, 2012, <http://www.reuters.com/article/2010/03/07/us-iraq-election-idUSLDE62505A20100307>; "Al-Qaeda's No. 2 opposes Palestinian elections," *CNN*, December 20, 2006, accessed May 21, 2012, http://articles.cnn.com/2006-12-20/world/al.zawahiri.tape_1_al-zawahiri-al-qaeda-fatah?s=PM:WORLD.

[28] For analyses of separatism movements, including related terrorist groups, see Neil DeVotta, "The Liberation Tigers of Tamil Eelam and the Lost Quest for Separatism in Sri Lanka" *Asian Survey* 49 (2009): 1021-1051; Rosemary Harris, *Prejudice and Tolerance in Ulster: A Study of Neighbours and "Strangers" in a Border Community* (Manchester UK: Manchester University Press, 1972); Siamak Khatami, "Between Class and Nation: Ideology and Radical Basque Ethnonationalism," *Studies in Conflict and Terrorism* 20 (1997), 395-418.

[29] "Data Collection Methodology," *Global Terrorism Database*, accessed June 1, 2009, <http://www.start.umd.edu/gtd/using-gtd/>.

[30] The author would like to express thanks and appreciation to James Piazza for help and advise in finding this information. Piazza conducted a similar study of terrorist group classifications in his article, "Is Islamist Terrorism More Dangerous?" He assembled a collection of groups using the Terrorism Knowledge Base (TKB) to determine which were associated with Al-Qaeda. This TKB database has since been merged into the GTD and is now the TOPs database, which was used in the present article. Piazza's classifications, taken from the TKB, can be found in Appendix A of his article.

[31] "GTD Variables & Inclusion Criteria, Version 3.0.," *Global Terrorism Database*, accessed June 1, 2009, <http://www.start.umd.edu/gtd/downloads/Codebook.pdf>.

[32] This is not without precedent; see Lisa McCartan et al., "Logic of Terrorist Target Choice," 65-66.

[33] Dummy coding procedure allowed for proper statistical control of the countries. Countries found to be statistically significant indicate that attacks carried out in those countries (or groups of countries) were significantly different from the comparison country, which in this case was Afghanistan.

[34] Namely linearity, non-multi-collinearity, and independence of errors.

[35] For this analysis, the dichotomized version of the target type variable was used with all government targets = 1, civilian = 2.

[36] Quite unexpectedly, it was found that when the United States was the target of an attack on foreign soil, there were actually fewer than average casualties.

[37] Linearity, homoscedasticity, normality, and independence of errors.

[38] For this analysis, the dichotomized version of the target type variable was used with all government targets = 1, civilian = 2.

[39] Gregory D. Miller, "Confronting Terrorism," 338-342; Ignacio Sanchez-Cuenca, "Revolutionary Dreams and Terrorist Violence in the Developed World: Explaining Country Variation," *Journal of Peace Research* 46 (2009), 701-703.

[40] See also Martha Crenshaw, "Questions to be Answered," 8; J. Henk Leurdijk, "Summary of Proceedings: Our Violent Future," in: David Carlton and Carlo Schaerf (Eds.) *International Terrorism and World Security*. New York, Halsted Press, 1975, 3; Louise Richardson, *What Terrorists Want: Understanding the Enemy, Containing the Threat*. New York: Random House, 2006, 75, 80, 106-107.

[41] Daniel Byman, *The Five Front War: The Better Way to Fight Global Jihad*. Hoboken, NJ: John Wiley & Sons Inc., 2008), 142.

[42] Gregory D. Miller, "Confronting Terrorism," op. cit., 343.

[43] Alex P. Schmid, "Terrorism and The Use of Weapons of Mass Destruction: From Where the Risk?" *Terrorism and Political Violence* 11 (1999): 116-122.