Countering Complexity:

An Analytical Framework to Guide

Counter-Terrorism Policy-Making

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Abstract

The development of religiously motivated terrorism has increased the complexity of the terrorist phenomenon. We are currently faced with a wider range of actors with a broader set of motivations, strategies, tactics, organizational structures and goals than ever before. This increased complexity necessitates the development of analytical frameworks that can guide analysis of the terrorist phenomenon to assess terrorist threats and guide counter-terrorism policy-making. Such a framework is developed drawing upon analysis of religiously motivated terrorism in relation to three primary trends in contemporary international terrorism: first, the trend towards the increased lethality of terrorist attacks; second, the increasing threat of the use of weapons of mass destruction; and third, the trend towards decentralizing organization. In each case it is suggested that one can best understand these trends by placing each individual group along a spectrum characterizing either the group's motivation, use of technology or level of centralization. Moreover this framework can be utilized as an organizational principle to allow a structured analysis of an individual group, the threat it represents and the counter-terrorism strategies to be utilized against it.

Introduction

The development of religiously motivated terrorism,[1] described in the literature on the subject by the concept of the new terrorism,[2] has increased the complexity of the terrorist phenomenon. We are now faced with a wider range of actors with a wider set of motivations, strategies, tactics, organizational structures and goals. We are also confronted by a wider range of threats along the technological spectrum, from low- end conventional weapons, the gun and bomb, to weapons of mass destruction. The overall result is that we face a much more complex phenomenon than ever before.

The implications of the complexity of contemporary terrorism are significant. This new complexity necessitates a reappraisal of our counter-terrorist strategies and indeed our wider understanding of the phenomenon in general. One area where research has the potential to contribute to counter-terrorism policy is through the creation of analytical frameworks that can guide analysis of the terrorist phenomenon in order to assess terrorist threats and guide counter-terrorism policy-making. This paper suggests such an analytical framework based upon the development of the new terrorism and the implications of religious terrorism in particular.

In order to develop the framework, the impact of the development of religiously motivated terrorism is assessed. Specifically, its relation to three primary trends in contemporary international terrorism are analyzed: first, the trend towards increased lethality of terrorist attacks; second, the increasing threat of the use of weapons of mass destruction; and third the

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[1] It is important to clarify that a religious terrorist group is one that has "aims and motivations reflecting a predominant religious character or influence (Hoffman 1998, 90)." This criterion precludes groups such as the Provisional IRA, which is comprised of Irish Catholics from being included in the "religious" category as PIRA is motivated predominantly by a secular/nationalist goal and strategy.

[2] The concept of the new terrorism is the subject of considerable debate. For descriptions of the new terrorism and its implications see, Hoffman (1998a, 1998b), Lesser et al. (1999), Laqueur (1999), Harmon (2000). For criticism of the concept see, Tucker (2001) and Merari (2000).

trend towards decentralizing terrorist organization. In each case it is suggested that one can best understand these trends by placing each individual group along a spectrum characterizing either the group's motivation, use of technology and level of decentralization.[3] Such a framework can be utilized as an organizational principle to allow a greater and more structured analysis of an individual group, the threat it represents and the counter-terrorism strategies utilized against it.

The final section of the paper examines the recently proposed "agent-based" forms of analysis suggested to assess the threat of terrorist use of weapons of mass destruction as a form of analysis related to the suggested framework. The conclusion outlines the role and importance of further research in relation to the application of the framework.

Lethality and Changing Terrorist Motivation

One of the most frequently mentioned trends in contemporary terrorism is its rising lethality. Over the past decade there has been a dramatic rise in the number of terrorist incidents resulting in fatalities.[4] Indeed the number of fatalities resulting from terrorist attacks has increased even while the number of terrorist attacks has been on the decline (Wilkinson 2001, 50; Hoffman 1999, 7). While it is important to not read too much into these statistics that deal with only international terrorism and not with the overall phenomenon of terrorism in general, the trend towards increasing lethality of *international terrorism* is clearly apparent.

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[3]Thus, there is a spectrum for each trend: the group's motivation, secular/religious as ideal types; the groups level of centralization, hierarchical/network oriented; and the groups level of technology, unsophisticated (low tech conventional weapons)/sophisticated WMD. In each case individual group would be placed along the spectrum according to its specific characteristics relating to the trait in question.

[4]Bruce Hoffman notes that there has been an increase in the number of terrorist incidents resulting in one or more fatalities through the 1990's. From 1991 to 1995 the percentage of such incidents climbed from 14 percent, to 17.5 percent, to 24 percent in 1993, 27 percent in 1995 and leveled at 29 percent in 1995. Thus, the percentage increased each year from 1991 to 1995. While the percentage decreased in 1996 to 24 percent, it remained higher that the corresponding average percentage for the two previous decades, 17 and 19 percent respectively (Hoffman 1999, 12-13).

There have been many factors suggested to explain the rise in the lethality of terrorist attacks. Various commentators have pointed to the hardening of targets, the increased professionalism of terrorist actors, and the development of "spectacular attacks" among others, to explain the rising lethality of terrorist attacks. Yet, perhaps the most cited cause of the trend towards the increased lethality of terrorist incidents is the proliferation of groups motivated by religion since the early 1980's. The lethality of religious groups' operations is shown by the fact that Shia Islamic terrorist groups committed 8 percent of all international terrorist incidents from 1982 to 1989 but accounted for 30 percent of the deaths over that period. Thus, the proportion of fatalities to operations was much higher in operations launched by such groups (Hoffman 1999, 17). The lethality of religious terrorism is also reflected by the fact that in 1995 religious terrorist groups committed 25 percent of the recorded international terrorist incidents yet resulted in 58 percent of terrorist related fatalities that year (Hoffman 1998b, 14). Religious groups also tend to dominate high-casualty incidents and commit more "spectacular" attacks than secular groups.[5]

It is clear that religious terrorist groups are more likely to use indiscriminate tactics producing mass casualties than traditional secular terrorists. The pattern is relatively apparent. Yet, what accounts for this difference between the traditional groups and the new religious terrorists? The answer lies in the nature, motivations and mindset of the newer groups (Hoffman 1998a). As a result of these factors, religious groups do not operate restrained by the traditional constraints which act to limit the level of traditional terrorist violence. Before the nature of the religiously motivated groups is analyzed these traditional constraints will be highlighted.

Traditional secular terrorist groups tend to be highly selective and discriminate in their operations. They possess a relatively narrow target set; that is they tend to target relatively few

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[5] Examples of religious motivated spectaculars include the 1993 World Trade Centre attacks, the December 1994 hijacking of an Air France passenger jet by the Algerian GIA, the Tokyo nerve gas attack in 1995 by Aum

people. Traditional groups also tend to be conservative in their operations and in their goals overall (Hoffman 1998a, 197-198; Laqueur 1999, 33,81). A number of disincentives act to constrain traditional groups' use of higher levels of violence. Increased levels of violence may affect the propaganda value of the attack, resulting decreasing support for the terrorist group among their constituency or in the international community (Hoffman 1998a, 161; Tucker 2001, 7; Jenkins 1975); provoke an intense government crackdown threatening the continued operation of the group (Tucker 2001, 7; Jenkins 2001, 7; Hoffman 1998a, 162); or jeopardize group cohesion, perhaps leading to a splintering or dissolution of the group or increased cooperation of informants with security forces (Jenkins 2001, 7; Horgan and Taylor 1997, 23).

As suggested above the overall result of these constraints upon terrorist use of violence was that traditional groups tended to limit their use of violence. This led Jenkins to assert that terrorists operated on the principle of the minimum force necessary stating that "They find it unnecessary to kill many as long as killing a few suffices for their purposes (1985, 6)." More recently Hoffman has asserted that being able to control their use of violence is a factor contributing to the success of terrorist campaigns. He concludes that "the more successful ethno-nationalist/separatist terrorist organization will be able to determine an effective level of violence that is at once 'tolerable' for the local populace, tacitly acceptable to international opinion and sufficiently modulated not to provoke massive governmental crackdown and reaction (1998a, 162)." This statement reinforces the notion that traditional terrorist groups have considerable incentives to limit their use of violence.

It also reinforces the distinction between traditional groups and the new religious terrorists. If the new terrorists do not operate under these same constraints, there must be a significant difference between the two types of groups. As noted above, a main factor accounting for this

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Shinrikyo, the U.S. embassy bombings in August 1998, and of course the September 11 attacks of 2001.

difference is the nature, motivation and mindset of the religious groups.

Traditional groups tend to operate within what has been called a coercive diplomacy framework. They utilize violence as a means to achieve certain ends. Hence their use of violence can be termed "instrumental (Arquilla, Ronfeldt and Zanini 1999, 68-69)." For religious terrorists, the use of violence not only has an instrumental purpose but violence also is an end in itself. It is viewed as "a sacred duty executed in direct response to some theological demand or imperative," and is often viewed as "a divine duty or sacramental act (Hoffman 1998a, 168, 88)." Thus, religion acts as a legitimizing force backing the use of higher levels of violence (Jeurgensmeyer 2002, 145; Ranstorp 2002, 127). This is reflected by the fact that many religious terrorist groups will only act if their attack is sanctioned by religious authorities (Hoffman 1998a, 94; Ranstorp 2002, 125).[6]

The replacement of the coercive diplomacy model has been noted by some analysts who suggest that some groups have adopted a "war paradigm", where the strategic aim is to inflict damage generally and conventional constraints, resulting in proportionality, are not present (Arquilla, Ronfeldt and Zanini 1999, 69-70). In such cases the instrumental use of violence gives way to a more "hostile" use of violence. It appears that religious groups would fit into this paradigm of motivation.[7]

The tendency of religious groups to perceive the conflict as a zero-sum game where no compromise is possible and as a battle between good and evil reinforces this perception of total war. As Jeurgensmeyer suggests, "If a battle of the spirit is thought to exist, then it is not

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[6] Ranstorp (2002, 128) suggests many examples of this phenomenon including the first World Trade Centre bombing in 1993 and the assassination of Sadat, both sanctioned by a fatwa from Sheik Omar 'Abd al-Rahman, and the aborted Gush Emunim plot to blow up the Temple Mount which was not conducted because religious sanction was not given. The latter is more reflective of the importance of religious sanction as it proves that such sanction is a limiting factor.

[7] This assertion is supported by Ranstorp who points to the tendency of religious groups to "perceive their struggle

ordinary morality but the rules of war that apply (2002, 145)." This factor is also reinforced by the common tendency for religious groups to perceive their struggle in defensive terms. In a defensive struggle even violent actions which normally would not be legitimate can be justified as being reactive in character and therefore perceived as a legitimate means of self-defence (Ranstorp 2002, 127). Thus the perception of religious groups that they are engaged in a total war and a defensive struggle reinforces and justifies the use of heightened levels of violence.

Religious terrorists do not seek to appeal to an external constituency, as do traditional secular terrorists. Hoffman describes them as being "at once activists and constituents engaged in what they regard as total war. They seek to appeal to no other constituency than themselves (1998a, 95)." This limits the need for religious terrorists to check their use of violence for fear of alienating either their own sympathizers or their external support (Hoffman 1998a, 95). The result is "a sanctioning of almost limitless violence against a virtually open ended category of targets: that is, anyone who is not a member of the terrorists' religion or religious sect (Hoffman 1998a, 95)." Indeed, some groups even aim their violence at the decimation of the majority of the population or even of mankind in general (Laqueur 1999, 81, 127-130). It is clear that this factor is interrelated with the total war mindset common to religious terrorists. The definition of large sections of the population as enemies reinforces the perception that the terrorists are involved in a battle of good versus evil. The propagation of dehumanizing and demonizing propaganda, which is facilitated by the terrorists acting within the war paradigm, also corrodes restrictions upon the indiscriminate use of violence. Such propaganda can be utilized to condone the use of higher levels of violence (Ranstorp 2002, 127).

A final factor which influences religious terrorists' propensity to use more lethal tactics, is the fundamentally different world view and goals of religious terrorists. Religious terrorists tend to

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as an all-out war against their enemies (2002, 126)."

have a greater sense of alienation from the existing world system. Hoffman suggests "religious terrorists see themselves not as components of a system worth preserving but as 'outsiders', seeking fundamental changes in the existing order (1998a, 95)." He notes the relationship between this sense of alienation and increased lethality and states that the greater sense of alienation "enables the religious terrorist to contemplate far more destructive and deadly types of terrorist operations than secular terrorists (1998a, 95)." The greater sense of alienation possessed by religious terrorists is also reflected in the tendency of religious terrorists to have much more ill-defined, ambiguous and extreme goals than traditional secular terrorist groups (Laqueur 1999, 81)

However, Laqueur (1999) also suggests that there is some amount of variation in the tendency of religious groups to pursue extreme levels of violence. It has been suggested that many of the religious terrorist groups also have political and social goals not unlike traditional secular terrorists. For example, religious terrorist groups may pursue the establishment of a state based on their religious beliefs. In such cases the constraints acting on traditional terrorist groups may have an effect (Tucker 2001, 7).

In such situations the restraining power of the traditional constraints will depend on the exact nature of the group, its perceptions, values, goals and world view. Thus, the same factors that override the traditional constraints for religious terrorists have to be assessed in order to analyze and understand the constraints acting upon a particular group. After conducting such an analysis, one would be able to place each group along a spectrum of terrorist motivation with traditional terrorist groups operating under the traditional constraints as one ideal type and religious groups unaffected by such constraints as the other. The more millenarian and apocalyptic sects would be on the far right end of the spectrum, if the traditional secular groups were positioned at the

other.[8] Each group's potential to use increased levels of violence and more indiscriminate tactics could then be illustrated according to its position along the spectrum. This potential would increase from left to right as one moves from the traditional secular groups on the left end of the spectrum to the various religiously motivated groups situated nearer the right end.[9]

Weapons of Mass Destruction

The debate surrounding the potential use of weapons of mass destruction by terrorists is not new; it dates back to the early 1970s (Jenkins 2002, 12). While some analysts believed that escalation to terrorist use of weapons of mass destruction was inevitable, the majority of terrorist groups did not seek to develop weapons of mass destruction capabilities. The same restraints which limit traditional terrorist groups' level of lethality dissuade terrorist use of weapons of mass destruction. Traditionally, fears of the loss of popular support, of provoking an intense government response, and threats to group cohesion tended to preclude the use of such weapons (Jenkins 2002, 13).

However, the rise of religious terrorism has forced a reappraisal of conventional wisdom surrounding the topic of terrorist WMD use. As Hoffman notes, "New adversaries, new motivations and new rationales have emerged in recent years to challenge at least some of the conventional wisdom on both terrorists and terrorism (1998a, 196)." Hoffman suggests that this trend is particularly relevant within the subject of weapons of mass destruction and notes that it

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[8]For a review of these particular variants of religious terrorism refer to Laqueur (1999) and Hoffman (1998a). For sake of organization one could place the traditional secular terrorist groups along the left end of the spectrum and the religious motivated groups towards the right end.

[9]This would not indicate that terrorist groups would not use traditional tactics. Indeed, the overall incidence of "spectacular" attacks is quite small compared to the number of attacks overall. The vast majority of attacks can be considered within the scope of "traditional" tactics. Ranstorp indicates that religious terrorists commonly use such traditional tactics as assassination, kidnapping, and bombings and notes a tendency to choose symbolic targets (2002, 130-31).

has been religiously motivated terrorist groups that have pursued a weapons of mass destruction capability more vigorously over the past decades (1998a, 201).

Indeed the same willingness on the part of religious terrorist groups to engage in attacks of higher lethality has been interpreted as showing the potential for the use of weapons of mass destruction. An example of such thinking is the conclusion drawn by James K. Campbell in his study on weapons of mass destruction terrorism: "the 'qualitative rise' in terms of the casualties and damage produced by terrorist attacks provides an indication that terrorists may very well engage in more spectacular and sophisticated attacks that include the use of weapons of mass destruction (1997, 25)." The change in motivations and values that characterizes the different mindset of religious groups and permits the sanctioning of the use of indiscriminate tactics and higher levels of violence suggests that such groups may see utility in utilizing weapons of mass destruction.[10]

The increased probability of the use of weapons of mass destruction further complicates our understanding of terrorism generally and increases the range of threats that we now face. No longer are threats confined to conventional means. Attacks across the technological spectrum, from unsophisticated conventional threats to the high-end threat of weapons of mass destruction, must be defended against (Hoffman 1999, 28-31). Thus, building upon the analysis of terrorist motivation outlined above, a second spectrum reflecting the technological sophistication of the terrorist attacks is created. Moreover this second spectrum appears to have a connection to the first illustrating terrorist motivation.

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[10]This assertion, that there is a connection between the increased willingness of religious groups to engage in high lethality attacks and the use of weapons of mass destruction, is reinforced by the potential for religious beliefs to specifically legitimize the use of such weapons. Campbell notes that the belief that their cause is "sanctioned or mandated by God" or the potential for weapons of mass destruction to produce a "prophesied event" could legitimize the use of such weapons (1997, 29). It is also suggested that the more extreme goals of the new religious terrorists may sanction the use of weapons of mass destruction (Laqueur 1999, 81-82; Hoffman 1998a, 200-205).

Groups contemplating the use of weapons of mass destruction will have to measure the costs and benefits of using such weapons. It seems likely that religious groups possessing more traditional goals and aspirations will be less likely to utilize weapons of mass destruction. The traditional constraints precluding the use of such weapons would act more strongly upon them just as it is suggested the constraints precluding the use of more indiscriminate tactics have a greater effect on such groups. If this is the case, then the weapons of mass destruction threat is most acute among smaller cults that possess apocalyptic or millenarian type beliefs as argued by Merari (2000, 62-63).

It follows that, within the framework, the potential for a group to use weapons of mass destruction increases along the spectrum detailing terrorist motivation from left to right. Traditional terrorist groups, on the left side of the spectrum, are unlikely to use weapons of mass destruction and the groups that are most likely to utilize such weapons are the religious cults and sects on the far right of the spectrum. A significant implication of this line of reasoning is that the assessment of terrorist motivations is increasingly crucial to determining the level and indeed the character of the threat a particular group represents.

This analysis also indicates that the threat of the use of weapons of mass destruction is related to the number of groups positioned towards the right side of the motivations spectrum. If the number of such groups is small, then the threat of WMD use would be relatively less compared to a scenario where the number of groups towards the right end of the spectrum was higher. It appears that this has been the case to this point as relatively few terrorist groups have attempted to develop a WMD capability. Yet, as Schmid notes, while the WMD threat may be widely regarded as being of low probability, the consequences of terrorist use of such weapons are grave (2000, 108). Thus, the danger of even a few terrorist groups possessing weapons of mass

destruction could be greater that the threat of a larger number of terrorist groups utilizing conventional weapons and traditional terrorist tactics (Laqueur 1999, 155). As a result, the threat of terrorist use of WMD cannot be ignored.

Decentralizing Organization

A third trend that is noted in relation to the emergence of religious terrorist groups is the tendency towards less cohesive, more amorphous and decentralized organizational structures. The CSIS backgrounder notes that "terrorism today is complex and fluid, with reduced emphasis on a formalized group structure typical of terrorist insurgents in the past (2002)." RAND analysts have characterized this shift as a move towards a more "network" oriented structure by the new terrorist groups. They note how "experts have begun to recognize the growing role of networks - of networked organizational designs and related doctrines, strategies and technologies - among the practitioners of terrorism (Arquilla, Ronfeldt, and Zanini 1999, 45)." Such networked structures tend to be comprised of "loosely interconnected, semi-independent cells that have no single commanding hierarchy (Arquilla, Ronfeldt, and Zanini 1999, 56)." It is suggested that this development is related to the revolution information technology and allows an increase in the transnationalization and geographic dispersion of terrorist groups (Arquilla, Ronfeldt, and Zanini 1999, 64-67).

Arquilla, Ronfeldt, and Zanini note that such networked and decentralized structures contrast markedly with the hierarchical and well-defined structure of traditional terrorist groups (1999, 56-63). An example of such a hierarchical structure is the organization of the Provisional IRA (PIRA). The group's organization is described as having "a cellular base" and a "hierarchically

organized authoritarian structure (Horgan and Taylor 1997, 3)."[11]

Thus, the increased complexity of terrorist motivation, tactics and use of technology is matched by an increase in the complexity of the forms of organization adopted by terrorist groups. This latter trend is complicated by the simple fact that no two terrorist groups are alike in structure. We do not see merely two categories of terrorist organization, hierarchical and decentralized. In reality the situation is much more vague and complex. Indeed the Arquilla, Ronfeldt, and Zanini had to note this fact in their analysis. They qualify their analysis, noting the existence of a "general trend toward an organizational structure that displays several features of a network" and stating that they "expect to observe substantial differences in how organizations make their specific design choices. Different network designs depend on contingent factors, such as personalities, organizational history, operational requirements, and other influences such as state sponsorship and ideology (1999, 64 note 61)." They also note that they expect to see many "hierarchy/network hybrids" combining characteristics of hierarchical and networked structures in the organizational design of terrorist groups (1999, 64 note 61).

It is clear that contemporary international terrorism is characterized by a plethora of organizational structures ranging along a spectrum from highly centralized structures with centralized command and control to decentralized structures lacking such centralized control and decision-making.[12] Moreover, the newer terrorist groups that have developed in the past two

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[11] Other traditional groups that possess similar characteristics include the Basque ETA, the Abu Nidal Organization, and ideological groups such as the Japanese Red Army and the Red Brigades in Italy (Hoffman 1999, 8).

[12] Arquilla, Ronfeldt and Zanini (1999, 67) suggest the idea of a spectrum as an organizing tool and state that no terrorist organizations can be considered a totally hierarchic or decentralized ideal type; groups would range along the spectrum, with "newer terrorist groups" approaching the decentralized end of the spectrum and traditional groups being closer to the hierarchical end of the spectrum. Yet no groups would approach the limits of either end of the spectrum. They also suggest that in order to rank groups and place them along the spectrum in relation to other organizations would necessitate the creation of a an "analytical 'degree of networking' scale' to allow empirical research. Such a task would also necessitate a large amount of accurate data relating to the organizational structure of each group.

decades tend to lie closer to the decentralized end of the spectrum.

The increased range in the organizational structure of terrorist groups has a number of implications for counter-terrorism strategy. First, operations conducted by decentralized groups, especially those utilizing "freelance" operatives unconnected to an existing terrorist group and without a previous track-record and organizational structure, are much tougher to prevent. Lacking information upon the members of such elements one is hard-pressed to identify them before they take action (Wilkinson 2001, 60; Hoffman 1999, 20-22; Tucker 2001, 11). It is also much tougher to determine the intentions and capabilities of such groups, making assessment of their overall threat a much tougher task (Hoffman 1999, 22). As one can imagine this makes the task facing those responsible for managing the terrorist threat much more difficult and complex.

Arquilla, Ronfeldt and Zanini note that networked forms of organization possess inherent defensive advantages which can make them tough to combat. In particular they argue that networked designs combining redundancy, interoperability, diversity and decentralized command and control are tougher to completely defeat than traditional hierarchical structures; such organizations are "redundant and diverse, making them robust and resilient in the face of adversity (1999, 54)." Assessing the impact of counter-terrorism operations against such actors is also more difficult due to the fact that only portions of the network may be identified and targeted, while other parts of the network remain unknown and viable in the face of such operations. In particular counter-leadership strikes would be less effective against decentralized actors lacking centralized command and control procedures. Actors with such decentralized structures are more flexible and better able to adapt to changed circumstances. Even if one node was removed by a military strike the overall effectiveness of the network would not be compromised (Arquilla, Ronfeldt, and Zanini 1999, 54).

While networked structures offer advantages to the defence they also have weaknesses. The adoption of a networked structure increases the level of communications necessary for the network to operate, and thus, decreased control over the management of such communications. Both the number of transmissions and the range of formats utilized may have to be increased. This may increase the potential for surveillance and intelligence gathering opportunities (Tucker 2001, 11; Arquilla Ronfeldt, and Zanini 1999, 51-53). If the adoption of networked structures is related to the revolution of information technology, as the RAND analysts suggest, the increased use of information technology by networked terrorist may also increase their vulnerability to signals intelligence penetration (Arquilla Ronfeldt, and Zanini 1999, 79-80). Indeed, terrorist reliance upon information technology may make them susceptible to information warfare attacks launched against them (Arquilla, Ronfeldt, and Zanini 1999, 80-81).

A second weakness of network structures is that the same decentralization, which increases some defensive aspects of the network, also limits command and control coordination within it. This may inhibit the networks ability to accomplish complex tasks (Tucker 2001, 10). As a result, the capabilities of terrorist organizations with a very decentralized structure may be limited to less sophisticated and coordinated means. Indeed, Brian Michael Jenkins has utilized this idea in his analysis of Al Qaeda; only if central decision-making is present are coordinated conventional attacks, multidimensional assaults calculated to magnify disruption, and weapon of mass destruction attacks possible. He suggests that in order to diminish the al Qaeda threat, strategy should focus on the elimination of the group's central decision-making element as a means to eliminate the possibility of the group utilizing such sophisticated modes of attack (2002, 11-12).

The efficacy of this proposed strategy is premised upon an analysis of the al Qaeda's structure

suggesting it would be affected by a counter-leadership strike. This reflects how analysis of the organizational structure of specific groups is a necessary first step in determining counter-terrorism policies to be used against them in an environment made extremely complex by a plethora of different organizational structures. As Arquilla, Ronfeldt and Zanini conclude, "Such organizational diversity implies the need for counter-terrorism strategy that recognizes the differences among organizational designs and seeks to target the weaknesses associated with each (1999, 80)."

Moreover, if a relationship exists between the level of decentralization of a terrorist organization and the level of sophistication of their attacks, the spectrum developed previously representing the technological sophistication of terrorist actors is related to that describing the structure of the organization. This suggests that both the motivation and organizational structure of any particular group will affect their ability to carry out sophisticated attacks including the use of weapons of mass destruction. Thus, not only will the organizational structure of the terrorist group have to be assessed, but the motivations and values of the group will have to be examined as well. These two factors become the main determinants of a terrorist group's willingness and ability to conduct sophisticated attacks. Only through such a coupled analysis can a truly accurate assessment of the threat a particular group represents be derived and the most suitable counter-terrorist policies determined.

A Decent Proposal

Recent proposals for "agent-based" forms of analysis regarding the threat of terrorist use of weapons of mass destruction are examples of a form of analysis closely related to the suggested framework. Tomas J. Badey argues that counter-terrorism policy regarding nuclear terrorism

should focus on the actors looking to acquire nuclear capabilities and not upon the containment (non-proliferation) of fissile materials. He suggests that the "primary threat of nuclear terrorism stems not from the availability of the materials but from the potential willingness of some groups to acquire them (2001, 39)." Thus, he argues that in order to fully understand the threat we must lower the level of analysis to assess the nuclear threat to the agent or group level, and develop an understanding of the motivations and actions of such groups. It is also suggested that this would allow a more efficient use of resources as analysis could be focused upon the groups that represent the primary threat (Badey 2001, 52-53). Such analysis is clearly within the realm of the framework presented in this analysis. It supports the assertion that in order to fully understand, assess and counter the terrorist threat we must focus on an analysis of group structure and motivation. Not only does this form of analysis present a more detailed and accurate assessment of the threat, it may also prove to be more efficient in the use of counter-terrorism resources.

This example also reflects the wider need for more research necessary for the framework to be utilized successfully. Badey points to the need for further research upon non-state groups to facilitate a greater amount of knowledge surrounding the non-state actors who may seek to use weapons of mass destruction (2001, 42).[13] In order for groups to be classified accurately according to the framework each group will have to be assessed according to the various categories. This may require the development of analytical scales similar to that proposed by Arqulla, Ronfeldt and Zanini that could describe the "degree of religious motivation," "degree of sophistication" and "degree of networked structure (1999, 67)." Accurate classification would

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[13]Schmid echoes this call for greater research in this area and suggests that analysis should focus upon "desperate actors" and the situations which may lead groups to use weapons of mass destruction (2000, 124). This analysis could also fit within the presented framework if it was based upon the premise that specific organizational structures and motivations are considered probable prerequisites for WMD use. Crelinstein (2000) also presents a favourable view of such an agent-based approach focused upon the assessment of terrorist motivations and goals, as well as their specific capabilities.

also be dependant upon the availability of accurate data to allow assessment. This would reinforce the need for intelligence gathering specifically and the development of information generally, both focused upon the terrorist threat.

The need for further research is increased by the fact that the framework can only guide counter-terrorism policymaking if counter-terrorism strategies are clearly developed and the criteria delimiting their successful implementation are known. Thus, the efforts of researchers would be well placed if they focused upon the development of conceptual models outlining counter-terrorism strategies and actor-specific models for their use.

The Critical Role of Research

As a result of the evolution we have seen in terrorist motivations, organization, and tactics, characterized by the development of what is called the new terrorism, the level of complexity of the terrorist phenomenon has increased dramatically. We are now faced with a combination of new and traditional actors, a widened set of motivations and tactics, organizational structures and principles, as well as a wider range of threats along the technological spectrum, especially with the increased potential for the terrorist use of weapons of mass destruction.

Counter-terrorism now must deal with a wider range of threats simultaneously. In order to undertake this challenge, we need a "comprehensive understanding of terrorism in all of its dimensions (Hoffman 2001, 4)." This entails not only keeping up with trends and developments occurring within the wider subject of terrorism but developing an awareness and a conception of how these developments relate to specific actors. In order to facilitate this task, the creation of analytical frameworks is a critical first step. The framework presented in this analysis assesses terrorist groups according to the nature of their motivation, their level of organization and their

level of technological sophistication. The first two factors, the nature of the group's motivation and its organizational structure, are the primary determinants of the third factor, the group's level of technological sophistication, which largely determines the nature and level of the threat posed by a particular terrorist group. This framework has the potential to be a powerful tool to facilitate the analysis of the terrorist threat and to guide counter-terrorism policy-making. Yet its development is only a first step. The potential for the framework to guide policy-making is largely dependant upon the development of knowledge surrounding specific counter-terrorism strategies and their implementation. Thus the application of the model and, like more generally, the success of counter-terrorism campaign, will be largely dependant upon the development of our knowledge regarding terrorism, counter-terrorism strategies, and their application. It is therefore clear that terrorism research has a crucial role to play in the management of the terrorist threat.

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