TERRORISM'S OPERATIONAL CODE:
AN EXAMINATION OF THE BELIEF SYSTEMS OF AL–QAEDA AND HAMAS

By

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Dedication

This dissertation is dedicated to my loving partner, Samantha Star Straf, my mother Fredericka Picucci, and the loving memory of my father Pete Picucci.

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Chapter One:
Introduction

In 1951 Nathan Leites embarked on an extensive examination of what was then commonly

seen as the preeminent threat to the international system: the USSR. In particular Leites

emphasized the unique role of the Soviet belief system and its influence upon the decision

making processes of the Politburo, identifying this belief system as an "operational code" that

could

> help 'bound' the alternative ways in which the subject may perceive different
> types of situations and approach the task of making a rational assessment of
> alternative courses of action. Knowledge of the actor's beliefs helps the
> investigator to clarify the general criteria, requirements, and norms the
> subject attempts to meet in assessing opportunities that arise to make
> desirable gains, in estimating the costs and risks associated with them, and in
> making utility calculations. (George 1969, p. 200).

Nearly two decades later his work would be distilled by George (1969) into a series of

philosophical and instrumental questions regarding beliefs about the nature of the

international system. These questions provide researchers with a means of generating

comparable measures of the belief systems of international actors and have come into

prominence within the foreign policy decision making field as a measurement tool for the

belief systems of state leaders.

Just as the USSR served in Leites time as a unique challenge to the status quo of the

international system so too does modern, non–state terrorism pose a threat to the functioning

of today's international system. It is appropriate therefore to harness the approach pioneered

by Leites and George in the efforts to understand these new threats. This is the approach

taken in this research project: the application of a systematic study of the operational codes of

terrorist actors to assist in accurately describing, understanding, and potentially predicting

their actions.[1] Contending that the operational code approach is not only an appropriate but also a potentially powerful tool in researching terrorist entities, this project also expands the parameters of operational code research by utilizing it to ask fundamental questions regarding a class of political actors as yet unexplored by this type of analysis. The principal aim of this study is consequently to conduct preliminary research into the kinds of information that the operational code approach can bring to the study of terrorist entities. The internal logic of this inquiry is as follows:

1) The decision–making of terrorist organizations should be amenable to the same kinds of analysis that inform foreign policy decision making in general.

2) The decision–making process of terrorist organizations is particularly amenable to influence by beliefs.

3) The very nature of the organization and its members, its position within international society as a result of the type of actions it takes, and the peculiar influences induced by that position, argues for a dominant collective identity expressing a set of powerful communal beliefs.

4) This belief system can be extracted via operational code analysis such that it can be compared across other international actors as well as other terrorist organizations.

5) Comparison of operational codes across actor types (state leaders and terrorist organizations), across differing types of terrorist organizations, and

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[1] Knowledge of an actor's belief system, no matter how important to the decision making process it is, cannot fully describe the array of intra–group and external influences that might affect terrorist behaviors hence this research is not intended to stand alone but rather to be used in conjunction with already familiar means of obtaining and analyzing intelligence on these organizations.

across time frames for given organizations will yield valuable insight into the behaviors of these actors.

The basis for these comparisons is the understanding that although states and terrorist organizations are clearly differing actors, they both belong to a general class of actor for which the operational code approach is appropriate. Each are complex political entities that engage in decision–making processes regarding the use of violence within the political arena. Their decision–making processes and therefore their behaviors and motivations are demonstrably impacted by sets of beliefs regarding the political world. Previous operational code research has repeatedly demonstrated this linkage of beliefs and behaviors for state actors, while the central role of beliefs to the decision–making processes of terrorist organizations is reviewed in the context of previous research on terrorism and expounded upon later in this work.

While the ability to distinguish terrorist actors from other international actors on the basis of their belief systems and the ability to link differences in terrorist behaviors and motives to differences in their belief systems are significant contributions in themselves, this project also addresses a known weakness of the terrorism studies field. As Ranstorp (2007b, p. 6) indicates, a significant issue for the field "was the often publicly repeated assumptions or theories that had become conventional wisdom within the field without ever being based on any serious or tested quantitative or qualitative field research or survey results." Although these assumptions may be largely grounded in the observations of qualified researchers and upon logical deduction from those observables, many still remain largely untested or are contradictory in their expectations. A number of these assumptions lead to specific expectations for the relative values of certain of the operational code indices. These

expectations can, therefore, be tested against the observed values for the beliefs associated with those characteristics and/or behaviors. Following the literature review, several of these assumptions for which the operational code indices provide insight are listed. This subject is returned to at the start of chapter four in which the indices most relevant to each assumption are identified.

This researcher collected statements for both al–Qaeda and Hamas spanning several years. I aggregated these statements into groups based on proximity in time to each other and coded them using the VICS coding system pioneered by Stephen Walker and Mark Schafer. The actual coding was completed utilizing the computerized content analysis routines of the *Profiler Plus* program (Young, 2001). I compared the resulting group level operational codes to each other and to a set of state leader mean values. These were evaluated against each other in order to determine the degree of distinctiveness of these two actors from state leaders. I noted and where appropriate linked the belief system differences between Hamas and al–Qaeda to observable structural and behavioral differences. Based on specific chronologic and internal divisions I generated additional operational codes for both organizations. I employed cluster analysis techniques to classify statements groups into viable divisions and examined the belief system differences between the resulting clusters. I also examined both organizations for evidence of evolutionary life cycle shifts by classifying statements into three categories and relating those categories to organizational life cycle stages. While speculative in some instances the results of each of these analysis do indicate that not only is the operational code approach appropriate to the study of these kinds of actors but that it is capable of generating valuable insights into terrorist behaviors and motivations.

Overview

The project begins with a summary of terrorism studies, applying a five part classification to the literature within that field. Owing to the general lack of consensus over most terrorism issues, this review largely recounts the various approaches taken within each classification noting prominent authors, their works and primary hypotheses. Chapter two provides background sections on the two groups evaluated in this study: al–Qaeda and Hamas. Their history, organizational structure, goals and beliefs, leadership, behavior patterns, and level of social connection are briefly reviewed. The chapter finishes with a discussion of the case selection process. In chapter three I shift attention to the operational code approach which is reviewed and evaluated for its applicability to studying the belief systems of terrorists at the organizational level. I discuss the importance of emphasizing the belief system with regard to terrorist behaviors and the shift from the study of individual political elites to analysis at the group level. I review the coding process by which the operational code is derived and report the modifications to this process that were necessitated by the data constraints. In chapters four and five I discuss the operational codes derived from this process. Chapter four concentrates on the belief systems of the group as a whole, comparing them to mean values for a state leader norming group and to each other. Chapter five examines internal operational code divisions within the organizations, chronologic shifts in beliefs, and the relation between organizational life cycle shifts to alterations in each group's operational codes. In the final chapter I summarize some of the more prominent results of these analyses, concluding that the operational code approach is capable of making valuable contributions to the study of terrorist actors. I also proposes some preliminary suggestions as to the policy implications of these results as well as potential future directions for the employment of the operational code approach to terrorism.

Terrorism Research

The following overview of the field of terrorism studies is intended to provide the reader with a snapshot of the field, illustrating the breadth of subjects covered and primary approaches taken to those subjects. This provides the reader with the necessary background for the understanding of the importance of the application of the operational code approach to the study of terrorism, its relevance to definitional issues, its ability to harness the importance of beliefs to the decision–making processes of these organizations, and its potential for informing counter–terrorism efforts.

The volume of material produced on terrorism since 2001 has been enormous and represents a wide variety of professions and viewpoints as well as issues and approaches (Silke, 2007, 78-79). Once considered nearly moribund, with a small, often transient, insular group of researchers, the field of terrorism studies has rebounded remarkably (Silke, 2004b 191-193; Silke, 2007). Renewed interest in the late 1990s and the occurrence of the 9/11 attacks brought to the field an influx of researchers from all manner of expertise. With this influx, the amount of literature within the field has grown tremendously along with a commensurate increase in the number of issue areas addressed. Of course, the basic questions of the field still remain. What is terrorism? What causes it? How and why do terrorists perform the actions they do? What are the impacts of their actions? How can they best be prevented or stopped? However, the number of techniques, approaches, and viewpoints brought to bear on these questions has generated a body of work which has largely gone without comprehensive review. Little work has been done on the field as a whole, particularly in the area of critical assessment of the field: "Less than a dozen serious scholarly articles are exclusively devoted

to critiquing the terrorism studies field – not just in the last few years following 9/11 but cumulatively over the last thirty years." (Ranstorp, 2007b, p. 5) Of the post–9/11 efforts the edited volume *Mapping Terrorism Research* is probably the most valuable but even Ranstorp admits that "It is not meant to be considered a definitive guide to terrorism research." (Ranstorp, 2007b, p. 4) In order to provide the framework for such a review, the following typology of terrorism research builds from Crenshaw's assertion that the study of terrorism is organized around three questions: "why terrorism occurs, how the process of terrorism works, and what its social and political effects are." (1981, p. 379) To those are added the questions of how to define terrorism and how to combat it. The result is the following typology.

Subfield	Types of research questions
Definitional Studies	*What is terrorism? Can it be usefully defined? What constitutes a terrorist actor? How does terrorism differ from other forms of politicized violence? Can types or forms of terrorism be usefully differentiated and categorized?*
Motivational Studies	*What causes terrorism? What conditions are permissive for its initiation? What causes individuals to undertake terrorist operations? Why do individuals become members of terrorist organizations? What causes organizations to turn to terrorism?*
Behavioral Studies	*What do terrorists do? What means do they employ and why? What means are they likely to employ? What do terrorist decision–making processes look like?*
Impact Studies	*What are the effects of terrorism? Are terrorist attacks successful? How can we measure the impact of terrorist actions? Is terrorism on the rise or decline?*
Counter–Terror Studies	*What can or should be done to stop or prevent terrorism? How effective are various counter–terrorism techniques? How can one measure the effect of these techniques?*

These are not meant to be mutually exclusive. Much of the research in this field, incorporates elements from multiple, if not each of the subfields presented. While intended as a review of the field as a whole, necessarily some subfields are developed in greater detail than others particularly with the intent of supporting the contentions of this research project.

Definitional Research

The issue of defining terrorism has been a nearly ubiquitous element in all terrorism research. In most instances definitional studies are the default introduction to any text on terrorism (Combs, 2000; Crenshaw, 1990; Hoffman, 1998; Horgan, 2005; Jenkins, 1999; Kegley, 1990; Kronenwetter, 2004; Kushner, 2002; Laqueur, 1987; Pillar, 2001a; Rodgers and Kullman, 2002; Sawyer & Reid, 2006, et al). Despite the attention paid to this issue, consensus remains out of reach. Schmid and Jongman listed 109 separate scholarly definitions of terrorism in their 1988 study and there is little evidence to believe that with the explosion of research since that time that number has declined. Crenshaw (2005) did argue that following the events of 9/11 there was near consensus on a definitional understanding of terrorism but that it was "short lived" and definitional issues have once again become a primary focus of the field. A measure of this resurgence was evident in the Spring 2007 issue of the *World Policy Journal* which was devoted entirely to definitional issues of terrorism. Debate continues regarding the basic components of a definition: inclusion of type of perpetrating actor, target selection, actions themselves, terrorist motivations, even the very appropriateness of using a term with such obvious pejorative connotations (Chomsky, 2003).

With regard to identity of the perpetrators as a definitional element, the primary issue has been two fold: whether or not to limit the definition to non–state actors, and how to usefully

differentiate the actions of legitimate resistance movements from terrorism. One approach to the state/non–state issue has been to delineate state actions as "terror" and non–state actions as "terrorism" (Hoffman, 1998, p. 25). While useful, this distinction can be confused by government associated paramilitary organizations and state sponsorship of terrorist groups. The issue of differentiation of legitimate resistance from terrorism is even less tractable, being the genesis of the oft repeated aphorism that "one man's terrorist is another man's freedom fighter." Here differentiation is usually reliant upon motive, target, and type of action distinctions as well as the functional needs of the defining entity. Distinguishing terrorists from solitary criminals has been a secondary concern; the exact designation of the actions of the likes of Sirhan Sirhan, and Ted Kaczynski remains in dispute (Hoffman, 1998, pp. 42-43). Most definitions that rely upon specific characteristics of the perpetrators make the point that the moniker of terrorist is one that is very rarely accepted by those so labeled.

Definitional issues with regard to the identity of the victims center around the targeting of non–combatants, and/or indiscriminant targeting. Schmid and Jongman (1988, pp. 5-6) noted that of their 109 identified definitions of terrorism 37.5 percent included some form of victim–target differentiation, 21% included non–discrimination of victims, 17.5 percent specified the targets as civilians or noncombatants, and 15.5 percent emphasized the innocence of the targets. Martin (2003) and others (Laqueur, 1999; Lesser et al, 1999) have argued that one of the trademarks of "new" terrorism is exactly this issue: the deliberate targeting of innocents or the use of indiscriminant attacks being on the rise and a clear distinction from the kinds of terrorism practiced for most of the 20th century. The issue of what constitutes a non–combatant ranges greatly and can include at its most permissive military personnel that are not currently on–duty. For instance, the US State Department

considers non–combatants to include "military personnel who at the time of the incident are unarmed and/or not on duty." (US State Department, 2004, xiii). This is also one of the few definitional characteristics that the perpetrators specifically discuss. Examples of elaborate explanations as to why the victims of a particular action should not be considered innocent are common.[2]

In terms of the type of action, the definitional issues center around what acts should be considered terrorism. The use of violence or force was the most common characteristic in terrorism definitions, being present in 83.5 percent of all definitions (Schmid & Jongman, 1988, pp. 5-6). Brian Jenkins (1980, p. 2-3) has taken this feature to its extreme in his argument that terrorism is defined "by the nature of the act, not the identity of the perpetrators or the nature of their cause." To Jenkins, the kind of action taken and the intended targets of that action are the defining features. However, it cannot be merely the use of force that defines a behavior as terrorism. To address this limitation, various other criteria have been applied such as Pillar (2001b, p. 25) citing premeditation of the act as a key element. The issue of legality has also been raised (Federal Bureau of Investigation, 1999; US State Department, 2004) and is the crux of Schmid's proposal (United Nations Office on Drugs and Crime, 1992) that terrorism be considered the "peacetime equivalents of war crimes." Schmid's definition specifically limits the usages of force that can be considered terrorism to those that would be outside the bounds of accepted wartime behaviors. Differentiation of terrorists from other actors that pursue similar actions is also occasionally done on the basis of what behaviors the terrorists do not exhibit. A case in point would be the lack of direct

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[2] See, for one example, the interview with bin Laden on 6/10/1999 (Najm, 1999).

territorial control that Hoffman (1998, pp. 41-44) utilizes to distinguish guerilla operations from terrorism.

Does the motive of the perpetrator matter to the definition of terrorism? Political motivation as a defining characteristic was found in 65 percent and the desire to cause fear or terror was noted in 51 percent of terrorism definitions (Schmid & Jongman, 1988, pp. 5-6). However, the prevalence of motivational factors in definitions has not prevented their presence from being the subject of dispute with positions on both extremes being articulated. Pillar (2001a, pp. 13-14) argues that motive is the fundamental factor differentiating terrorism from other forms of violence, while other voices (Ahmad & Barsamian, 2003, p. 48; Jenkins, 1980, p. 2-3; Stern, 1999, p. 11) have argued that motive is largely irrelevant to the actions and actors themselves. Garrison (2004) linked behavior and motive arguing that the defining feature of terrorism is the belief in the use of terror to achieve political goals. "All terrorists share the common belief that terror is a tool of change."(Garrison, 2004, p. 259). "Terrorism is defined by the rationalization, logic and perception of how to effect change."(Garrison, 2004, p. 263). As is evidenced by the Schmid and Jongman (1988) survey, most definitions find a middle ground and include some element of political motivation.

Compounding the issue of the inclusion or exclusion of these four elements, and the relative weights attached to each, is the functional nature of the definition itself. The debate concerning the definition of terrorism is not confined to academic circles and the diversity of the scholarly definitions indicated previously is only increased by the functional needs of the various other contributors to the debate. Their competing definitions of terrorism have different purposes, and the sheer variety of participants in the debate over a useful definition

inhibits consensus. Journalistic definitions require boundaries that determine whether the

perpetrators of a reported event are referred to as "freedom fighters," revolutionaries,

terrorists, extremists etc. and must satisfy the news services' requirements as to objectivity in

reporting. Government definitions on the other hand serve the purpose of the agency using

that definition. It is not surprising that the definitions of terrorism utilized by organs of the

United Nations do not match that of the U.S. State Department. Specifically the UN

definition "The act of destroying or injuring civilian lives or the act of destroying or

damaging civilian or government property without the expressly chartered permission of a

specific government, thus, by individuals or groups independently or governments on their

own accord and belief, in the attempt to effect some political change." includes the caveat

"without the expressly chartered permission of a specific government" in order to deliberately

exclude non–state actions undertaken under state auspices. Nor should it be surprising that

the definitions of the State Department, Defense Department, and Federal Bureau of

Investigation differ from one another, largely on the basis of that organization's relationship

to the phenomena of terrorism. The state department's definition: "premeditated, politically

motivated violence perpetrated against noncombatant targets by subnational groups or

clandestine agents, usually intended to influence an audience" (US Department of State,

2004, p. xiii), includes the possibility of state terrorism, excludes threats of violence, and

utilizes (as indicated previously) a very specific definition of non–combatant. In contrast, the

Department of Defense definition: "the unlawful use or threatened use of force or violence

against individuals or property to coerce or intimidate governments or societies, often to

achieve political, religious, or ideological objectives" does not include the use of threats and

excludes the non–combatant distinction (Enders & Sandler, 2006, p. 5). Legal definitions of

terrorism, created for the purpose of criminal investigation and prosecution have their own

functional constraints.[3] This functional element of the definition has led some to conclude

that attempts at objective definition are folly if not merely exercises in pejorative labeling and

therefore shifting the debate toward more normative issues. Chomsky (2003) in particular has

argued that the word terrorism has lost whatever meaning it may have had and that it now

only serves as a label attached to those actions with which the defining agent (usually a

government) wishes to portray negatively. Crenshaw notes:

> "The tendency to use labels to identify enemies and employ rhetoric to
> justify behavior and inspire support is exacerbated in times of conflict.
> Accordingly, concern that the 'terrorism' label will be used to vilify
> opponents, legitimize repression, and fuel conflict has resurfaced."
> (Crenshaw, 2005, p. 88)

It is precisely this issue that continues to spur the definitional arguments within the field.

While obviously not limiting the amount of work produced on the subject of terrorism, the

inability to come to consensus on a definition, or even on the appropriateness of pursuing

such a definition, remains a primary weakness of the field. At its most fundamental level the

question of terrorism's definition is asking whether or not terrorist actors are distinct in a

manner which justifies their classification as a distinct set of international actors.

Identification of an operational code specific to these actors addresses this issue by providing

the basis for differentiation of these actors that is not dependent upon subjective

interpretations of the identity of the perpetrators, the identity of the victims, the types of

actions committed, or motivations for those actions. Further, the operational code approach is

a unique means of approaching the definitional question of whether motive is a fundamental

factor in the differentiation of terrorism from other forms of behavior. This question is

addressed in this project through the comparison of the operational codes of al–Qaeda and

Hamas to that of a norming group of state leaders. Use of the operational code approach

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[3] See Smith (1994, pp. 160-161) for a discussion of the difficulty in reconciling academic and
legal definitions of terrorism.

provides a largely objective means of comparing the underlying motivational beliefs of the actors in question and also provides a means of linking those beliefs to terrorist behaviors. For the purposes of this study the actors defined here as terrorists fit a generally shared profile of those engaging in terrorism. Both al–Qaeda and Hamas are sub–state entities that employ violence against non–combatants for the stated purpose of achieving political change.

Terrorist Motivation

Research into the motivational issues behind terrorism remains one of the core preoccupations of the field and deals with four principle questions. What conditions give rise to terrorism? Why do organizations adopt terrorist actions? Why do individuals become terrorists? What enables individuals to carry out terrorist actions. The question of the causes of terrorism is necessarily broad as there is general consensus that the causes are a complex interplay of factors ranging from structural permissive conditions to precipitating psychological factors. Of these myriad factors this project is most concerned with the issues of why organizations adopt terrorist actions and what enables them to justify their use of these actions. Crenshaw (1981) compiled one of the first detailed lists of factors contributing to or facilitating terrorism including sections on contextual conditions, factors impacting a group's rational decision calculus, and individual motivation and participation. Ross (1993) identified nine specifically structural causes of terrorism emphasizing the interplay between various factors such as the presence of grievances leading to popular support, support leading to availability of resources, etc. Bjorgo (2005) presented a list of fourteen causes that were identified at the 2003 Root Causes of Terrorism Conference in Oslo which included such diverse factors as lack of democracy, the presence of charismatic leadership, extremist ideologies, and rapid modernization. Hippel (2007) provided six areas that she identified as

"causal and facilitating factors in international terrorism…poverty, weak and collapsed states, wars hijacked by Islamic extremists, fundamentalist charities, radicalization in Europe and North America, and the 'democracy deficit'"(Hippel, 2007, p. 103). All of the factors that have been put forth can be roughly placed into one of three levels of analysis: structural, group, and individual, each of which includes both permissive and precipitating causes.

Of the various structural factors presented by analysts several have been persistent in their presence and/or are currently the focus of significant research emphasis: development level, transnationalism, government type, and religious extremism. Usually cited as a permissive condition, the relationship between development and terrorism remains elusive whether discussed as an element of the commonplace relative deprivation theories (McCormick, 2003, p. 491; Victoroff, 2005, pp. 19-20), a root cause leading to unemployment and lower education (Newman, 2006, p. 752), or as contributing factor to clashes over cultural modernization (Mousseau, 2002; Cronin, 2002). Development issues exist as prominent explanatory factors across both academic and non–academic literature, and remain a primary popular culture explanation. However the linkage between development and terrorism remains largely unsubstantiated. Krueger & Maleckova (2003), for example, have found only a weak and indirect causal linkage between poverty and terrorism, noting that in most instances the opposite relation is true: higher living standards are associated with increased terrorism. Also contesting the presumed poverty/terrorism relationship is the contrary evidence of terrorist profiles. It is well established that the majority of terrorists, and in particular those in leadership positions, are not drawn from the poor but instead are generally well educated and from the middle or upper classes of their societies (Hudson, 2002, pp.75-77; Laqueur, 1990, p. 71; Russell and Miller, 1983).

The impacts of transnationalism upon terrorism are more usually related to behavioral studies explaining how terrorist organizations operate but, particularly in terms of the relationship between transnationalism and culture, they are also related to motivational studies. The rapid pace of modernization that is part and parcel of modern transnationalism is explored by Mousseau (2002) and Cronin (2002) as a permissive and precipitating factor in the origins of terrorism. The inability of more traditional cultures to isolate themselves from the dominant market civilization, and the cultural mores that accompany it, provide a viable grievance against the primary actors in the market, namely the West. Additionally, these factors can provide a rallying point for the disaffected and market access to the resources necessary to pursue terrorist actions. A detailed examination of the relationship between transnationalism and terrorism can be found in the work of Brynjar Lia (2005, pp. 17-38).

During 1980s and 90s a common conclusion was that the presence of a democracy was a permissive cause of terrorism (Johnson, 1990, pp. 66-67); a government tolerant of dissent and open enough for the operation of successful underground organizations increased the probability of its presence. Terrorism, it was theorized, could not exist in authoritarian regimes because of the lack of openness and the willingness of the state to punish would be terrorists. Today the argument has shifted. Authoritarian states are seen as a precipitating condition because of their lack of legitimate dissent outlets, hence the necessity for dissidents of turning toward terrorism. Theorists such as Li (2005) have convincingly demonstrated that various aspects of democracy are correlated with lowered incidences of terrorism. The emphasis in recent years has also shifted away from the impact of government type to the permissive presence of weak or collapsed states (Hippel, 2007, pp. 98-99).

Increases in the frequency and scope of religiously inspired terrorism, the events of 9/11, and the presence of a number of religious organizations employing terrorist means, have generated a niche field for the study of how religious extremism and more specifically Islamic extremism are related to terrorism. While a relative newcomer to the motivational literature, the research into religious extremism has expanded rapidly. Laqueur, writing in 1987, makes no mention of the role of religious extremism in *The Age of Terrorism*, by his 1997 publication of *The New Terrorism: Fanaticism and the Arms of Mass Destruction*, the subject was afforded a chapter length discussion.[4] Much of the emphasis in these writings is behavioral: how religion influences the behavior of terrorists and what makes religious terrorists different from their secular counterparts. Motivational questions occupy a lesser portion of the literature. At its most basic, the general argument is cultural[5]; certain cultures are more conducive to resorting to violent measures[6] and Islamic cultures in particular are prone to conflict. Juergensmeyer (1988) and most others (Ranstorp 1996) reject this simplistic argument, indicating that instead, the decision to undertake terrorist actions may be made easier by the portrayal of the conflict in cosmic terms, by the attendant absolute surety of cause that accompanies faith based motivation, and the readymade constituency of an already activist religious community. Lacking other means and faced with the religious duty to act, terrorism can become an accepted if not preferred option (Sedgwick, 2004, p. 187). In

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[4] This is not to say that no authors addressed these issues in the mid to late 1980s. Juergensmeyer's "The Logic of Religious Violence"(1988) draws from Sikh extremism to indicate the unique characteristics of religiously inspired political violence. It is also worth noting that Juergensmeyer also points out that religious extremism tends to be most prevalent in areas in which the state concept is dubious thus linking these motivational concepts.
[5] For a more general exploration of cultural preconditions for terrorist formation see Moghaddam (2004).
[6] Alternative cultural explanations have been presented as well such as differing potentials for terrorism in "collectivist" and "individualist" cultures noted by Weinberg and Eubank (1994).

most instances these theorists are concerned with the motivational relationship between

religion in general and violent actions, and are careful to draw their conclusions from such

diverse religious sources as Aum Shinrikyo, Islam, Judaism, Sikhism, and Christianity. Some

authors however have concentrated upon Islam in particular as a motivating factor. Several

have examined the links between Islamic religious texts or influential Islamic theorists and

their writings to organizations such as Hamas (Hroub 2000; Mishal & Sela, 2000) and

al–Qaeda (Hellmich, 2005; Wiktorowicz 2005a & 2005b). Again, while primarily concerned

with explaining behaviors, motivational elements are apparent in each. While there appears to

be general agreement that religious extremism and in particular Islamic extremism can

facilitate the rise of terrorism, Lo (2005) and others have argued that it is the "politicization

of the Muslim faith" rather than any inherent traits of Islam that are the root of these

motivational factors. Hippel (2007, pp. 99-100) took a slightly different tack, indicating that

religious extremism per se is not a cause of terrorism but that the "hijacking" of conflicts for

the furthering of religious causes is a permissive factor in the rise of terrorist organizations.

An important aspect of the literature on structural conditions or root causes of terrorism was

convincingly demonstrated by Newman (2006), whom examined both quantitative and

qualitative approaches to the study of the root causes of terrorism. Newman treated

permissive causes as condition variables, direct causes as independent variables, and

catalyzing conditions as intervening variables in order to explain the dependent variable of

the presence of terrorism. He concluded that the effect of these root causes cannot be

generalized across the broad spectrum of terrorist entities. Their explanatory power was

however found to be related to the type of organization under study and the development

level of their environment:

> Root causes tend to be most relevant in helping to understand terrorism associated with ideological, ethno–nationalist, and Islamist groups in developing countries; of limited value in explaining nationalist groups in developed societies; and least relevant with regard to ideological and nihilist groups in developed countries. (Newman, 2006, p. 770).

Newman also concluded that analysis of root causes alone was insufficient to explain the emergence of terrorist organizations. Specific precipitating causes, often only clear via detailed qualitative analysis, were also necessary to explain specific outbreaks of terrorist behavior.

Newman's conclusion should not be surprising. Any look at the broad preconditions for the development of terrorist activities is necessarily incomplete, unable to address the basic question of why, if so many individuals live under these permissive and precipitating conditions, do so few individuals choose to use the instrument of terrorism. Addressing this issue requires analysis below the structural level and asks what is essentially a different question regarding motivation. While research into structural causes is primarily concerned with asking what conditions are likely to give rise to terrorism, research at the group level is primarily concerned with asking why a particular organization chooses to utilize terrorism. Group level analysis occurs in two broad classes. The first, instrumental approaches, treats the organization as a rational, unified entity attempting to achieve a specific set of defined objectives. The second, non–instrumental approaches, treats the organizational decision to use terrorism as the outcome of the internal dynamics of the group itself.

Instrumental Approaches to Terrorist Motivation

Instrumental approaches, also referred to as strategic or rational choice approaches, emphasize the strategic goals of the organization. The terrorist group is said to be seeking to

achieve a particular political goal by utilizing the limited resources available to them, as such, these approaches tend to rely upon ideological aspects of motivation. Ideology not only determines what the long term political goals are but can also influence the choice of tactics utilized to achieve those goals. Taking this one step further, the use of terrorism presupposes a particular belief regarding the efficacy of the use of violence for achieving political change (Fleming, 1980; Garrison, 2004; Gurr, 1988); therefore, whatever ideology is espoused by the terrorist organization necessarily must contain this belief. Ideology is therefore linked to instrumental analyses of terrorist behavior "by providing a set of contingencies that link immediate behavior (e.g., violence) to distant outcomes (e.g., a new state, afterlife reward)" (Taylor and Horgan, 2001). Taylor and Horgan were specifically looking at Islamic fundamentalism from an ideological perspective. This indicates that while the presence of religious extremism can be a structurally permissive cause of terrorism, the specific form of religious extremism can serve as group ideology and therefore as the group level linkage between action and political goal that is necessary for the strategic decision to employ terrorism. This linkage can follow one of several paths as indicated by McCormick (2003) and are discussed below in the section on behavioral research. The instrumental decision calculus has also served as an answer to the question of what explanations terrorists use to justify the move to violent action. Groups often portray themselves as having no other choice but to resort to these kinds of actions as a rational response to the disparity of resources between themselves and states, because of a lack of popular support, or the lack of alternative effective political expression avenues (McCormick, 2003, p. 483). This does not necessarily imply that such a group will then only employ terrorist actions but rather that these kinds of actions are a necessary element of the strategic pursuit of their goals.

Those that have employed instrumental approaches (Crenshaw, 1981, 1988, 1990a; Sandler & Enders, 2004; Schulz, 1990; Sick, 1990; Sprinzak, 2000) have generally acknowledged that presuming strict rationality ignores a variety of factors that may impact a group's decision calculus. One approach to this acknowledgement has been to presume that an organization's decision to employ terrorist means is the result of a rationality that is bounded by these other factors. Environmental or structural considerations may make the usage of violence seem more or less attractive than it would objectively be. Similarly perceived time pressures, the need to act swiftly due to a closing window of opportunity or to the imminence of group threat, can also prevent an organization from making the optimal strategic choice. Organizations contemplating the use of terrorist action also may have to deal with situations of either limited or too much information. When information access is limited, the strategic decision to resort to terrorism may be adversely affected by information that is unknown to the organization. When presented with information overload "the organization is forced to employ simplifying rules, which may filter, frame, and ultimately distort its perceptions of reality" (McCormick, 2003, p. 482). Recognition of the need to take into account these factors have lead some, such as Crenshaw (1981, 1986, 1988, 1990a), to include, if not integrate, sociological, political, and psychological factors into their instrumental explanations of terrorist motivation. An alternative approach has been to abandon instrumentality and consider these other factors as the primary motivational considerations.

Non–Instrumental Approaches to Terrorist Motivation

A significant subset of the non–instrumental approaches to terrorist motivation are those that emphasize the socio–psychological factors that underlie group interactions. These approaches rely upon the internal makeup and functioning of the organization as well as its

decision–making processes to explain the decision to use terrorism; thereby explicitly

rejecting the concept of the organization as a rational, unified entity. Most of the research in

this area is behavioral rather than motivational, although a number of group features can

specifically impact the shift into terrorism, most of which can be categorized in one of three

areas: situational context of the group, inter–group dynamics, and group leadership

characteristics. Situational concerns include such factors as the demand for the organization

from some actual or potential constituency, competition with other groups for that

constituency, and external threats to the group's existence (Post, Ruby, & Shaw, 2002a, pp.

82-84, 94-95). Group dynamic factors can include a wide ranging set of characteristics

including: demonstrated lack of tolerance for internal divisions, group factionalization

concerning the question of the use of violence, high levels of de–individualization, and

decision–making practices characterized by groupthink behaviors (Hudson, 2002, p. 34).

Group leadership may also play a significant role, with the presence of a strongly charismatic

but ideologically violent leader being of primary concern, but also at issue are such factors as

leadership personality and style, and the presence or absence of a hierarchical or

quasi–military command structure (Post, Ruby, & Shaw, 2002a, pp. 85-88, 94-95). Other

behavioral characteristics of the group may also play a role such as its recruitment practices,

prior involvement in criminal activities, limited options for exiting from the group, level of

external socialization of group members and many others (Post, Ruby & Shaw, 2002a, pp. 85,

90-92).

Below the group level, lies a significant branch of motivational research that looks to

individual psychologies for explanation of what motivates individuals to join terrorist entities

and perform terrorist actions. In contrast to the instrumental approaches, these argue that

"political terrorists are driven to commit acts of violence as a consequence of psychological forces, and that their special psycho–logic is constructed to rationalize acts they are psychologically compelled to commit."(Post, 1990, p. 25). Psychological exploration of terrorist motivations, has generally taken one of several paths. The first is one aspect of the much larger body of work on terrorist profiling and concerns itself with the largely fruitless search for a set of psychological traits shared by all terrorists. Its most extreme, and largely discredited[7], form has argued that terrorist behaviors can be traced to specific psychological disorders. At its best it has indicated merely that individuals of certain personality types or that share certain psychological motivations may be disproportionately represented within the ranks of terrorist organizations.

The second line of analysis relies on the application of broad based psychological theories of motivation (frustration–aggression and narcissism–aggression) to explain terrorist behaviors. In the first instance (frustration–aggression), the classic relative deprivation arguments (Davies, 1973; Gurr, 1970) in which individual frustration over subjective deprivation from either a real or idealized condition is used to explain the turn to violence. In the second (narcissism–aggression), this turn is attributable to individual attempts to manage an early and significant injury sustained to one's self–image (Pearlstein, 1991; Post, 1990). An individual's negative self images are projected upon the enemy; the external self image can then be safely attacked; allowing the individual to maintain an idealized version of themselves (Post, 1990, pp. 27-28).

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[7] Rasch, as early as 1979, in his examination of several members of the Baader–Meinhof group, concluded that "no conclusive evidence has been found for the assumption that a significant number of them are disturbed or abnormal." (Rasch, 1979, p. 80). For a detailed discussion of the problems with this kind of research and its stubborn persistence see Crenshaw (1990a), Silke (1998) and Horgan (2005).

A third path of inquiry emphasizes that developmental processes might lead individuals of diverse backgrounds and psychological states to the same path of terrorist action. Bandura (1990) provided a developmental model that emphasized the processes by which an individual desensitizes themselves to the self–condemnation that results from violations of moral standards; thus potentially leading to a point at which previously unthinkable actions become acceptable to the individual. Shaw (1986) proposed his "Personal Pathway Model" which included "early socialization processes; narcissistic injuries; escalatory events, particularly confrontation with police; and personal connections to terrorist group members" (Hudson, 2002, p. 38). The late Ehud Sprinzak (1990 & 1995) described a process of "cognitive transformation" by which an individual, initially perceiving the ability to change the political process using legitimate means, gradually comes to believe that such change is impossible, seeks and becomes part of a collective of like–minded individuals, and is catalyzed into violent action by the collective identity that is formed from that group: "as radicalization deepens, the collective group identity takes over much of the individual identity of the members; and, at the terrorist stage, the group identity reaches its peak" (Sprinzak, 1990, p. 79). A notable element of each of these process models is the individual's ultimate dispersion of responsibility for violent actions to the collective group.

A fourth path is the use of theories of identity to explain the individual's motivation for terrorist action. One must be careful to acknowledge that the term "identity" has several differing meanings in social and psychological research particularly in reference to social identity theory as presented by Tajfel and Turner (1986) and Identity theory (Stryker and Burke, 2000). For social identity theorists an individual's 'identity' refers to one's

identification with a particular group or social category. For identity theorists, an individual's 'identity' refers to the meanings one has attached to the particular roles an individual has within specific social environs. Various theorists (Brewer, 2001; Spears, 2001; Stets & Burke, 2000; Stryker & Burke, 2000; Deschamps and Devos, 1998) have argued that these are not necessarily mutually exclusive perceptions of identity and that there is particular value to integrating the conceptions. For purposes of this exploration of motivational and behavioral aspects of terrorism, theories employing either or both of these conceptualizations are included in the category of identity related approaches.

Crenshaw (1986) refers to Erickson's developmental psychology approach to identity as being central to the work of both Bollinger and Knutson. Bollinger (1981) conceived of the would–be terrorist as an individual trapped in the developmental process of identity formation. Unable to develop an autonomous self identity, the individual seeks submergence in a collective identity and the terrorist organization provides the ideal environment for that submergence. Knutson (1981) shifts this emphasis to the presence of a "negative identity." In these instances the identity formation process has been resolved through the assumption of an identity "perversely based on all those identifications and roles which, at critical stages of development, had been presented to them [patients] as most undesirable or dangerous" (Erikson, 1968, p. 174). This assumption may have a multitude of causes including, most importantly for the joining of a terrorist organization, negative expectations due to external identification of the individual with socially marginalized elements such as ethno–nationalist, religious, or economically disadvantaged minorities and therefore a specifically politicized negative identity. Obviously, not all socially marginalized individuals seeking to express a politicized negative identity will become terrorists, however, for those that have the means

and opportunity, the organization's marriage of a strong collective identity with violent political activity, can provide a powerful motivating influence for the joining of these kinds or organizations.

While also useful as its own path toward the explanation of individual motivation for terrorism, the use of the concept of identity is also present as an element, sometimes the primary element in the various other approaches discussed above. Post's narcissism–aggression hypothesis relies upon the presence of a damaged personal identity. Shaw's model specifically includes both Post's conceptualization of the damaged identity and the role of additional shocks to the identity concept as steps toward extremism. Sprinzak's model emphasizes the need for submergence of the individual identity to that of the collective terrorist identity. Arena and Arrigo argue that each of these uses relies upon the presumption that the individual in question is "pathological and dysfunctional, experiencing profound personality deficiencies traceable to unresolved psychosocial trauma" (2006, p. 24), a presumption that has only been supported by research they describe as "sparse and of poor quality" (2006, p. 25). Arena and Arrigo find agreement for this characterization in the work of Horgan (2005) and Silke (1998). In light of this, theories of identity, such as social identity theory (Tajfel & Turner, 1986), that do not rely upon negative or incomplete identity concepts have also been related to terrorist motivation. However, it should be noted that the presence of a flawed or damaged identity concept referred to in these theories does not necessarily imply the psychopathology that Arena and Arrigo, Horgan, and Silke seem to assume it does. While it is almost certainly true that "terrorists are essentially normal individuals," (Silke, 1998, p. 53) it is also almost certainly true that "normal individuals" all exhibit degrees of imperfect identity development.

While only limited attempts have been made to apply social identity theory directly to terrorist motivation, it has been applied to understanding the nature of conflict between ethnic and religious groups that have demonstrated tendencies toward terrorist development (Cairns, 1982; Seul, 1999; Worchel, 1999). Taylor and Louis (2004) applied aspects of social identity theory to terrorist recruitment processes, suggesting that the presence of a developed collective identity is a necessary precursor to the social comparison processes that social identity theory identifies as critical to the evaluation of the individual self–esteem and therefore personal identity. The collective identity of the terrorist organization, "simplistically clear…espoused without even minor variation by every member of the organization," and "forward–looking with the promise of better conditions for the group and individual" (Taylor and Louis, 2004, p. 179), can be easily, if not eagerly, substituted for existing collective identities that suffer in the social comparison process. Further, in a climate of structural conditions permissive for the advent of terrorist actions, identification with such a group and comparison of it to lesser collective identities may be particularly salient.[8]

Arena and Arrigo, emphasizing social identity theory's lack of applicability to intra–group dynamics as a significant weakness, employed elements of symbolic interactionism and identity theory in their examination of five extremist organizations in an effort to provide "a generalizable framework for comprehending the emergence of identity, especially in the context of explaining the social psychological motivations and forces behind terrorist behavior" (Arena and Arrigo, 2006, pp. 245-246). To that end, they examined how cultural

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[8] An unusual application of social identity theory to terrorism occurs in Brannan, Esler & Strindberg (2001) whom use it to demonstrate the level of stereotyping of terrorists that occurs in terrorist researchers.

symbols and environmental perceptions as well as social role assumption and socialization processes can be intertwined in the creation of a self–sustaining social identity that both enables violent action and provides justification for it. Their integration of structural conditions (in the form of relevant symbols and socialization processes), group dynamics (inherent in differing self roles within the organizations), and individual level psychology (the use of identity theory), exemplifies a key aspect of research into terrorist motivation: its multi–causal nature.

The single common point for nearly all theorists on the motivational issues of terrorism is that such research cannot be reduced to a single issue and nor can it be reduced to a single level of analysis. Multi–causal, multi–level integrated processes are necessary for any serious discussion of terrorist motivation. Examples of such approaches are still relatively rare but are often among the most compelling in terms of explaining terrorist motivation. Della Porta (1995) utilized resource mobilization theory to conceptualize terrorist motivation as an integrative process. Crenshaw (1981, 1990b), recognizing the problems inherent in multi–causal, multi–level research, has argued that differing levels of analysis deal with subtly different research questions and that too often research conflates the questions of the search for terrorism's root causes, a group's decision to transition to terrorist action, and an individual's decision to become a terrorist. However, even when limiting the research question to a specific motivational issue, such as group transition to terrorism, factors at multiple levels of analysis may be usefully integrated. Sprinzak (1998a) identified 11 risk characteristics, providing weighted values for each and compiling them into a Terrorism Potential Index (TPI). An ambitious effort was put forth by Post, Ruby & Shaw (2002a, 2002b) whom provided a list of 125 variables across 16 categories indicative of group risk for

terrorism. These variables were then evaluated across a typology of five types of radical groups, evaluating each variable with respect to its pertinence to groups of that type. A related means of integrating these motivational factors is through the use of motivational typologies of terrorist groups. Recognizing the multiplicity of factors that can influence terrorist motivation, these approaches categorize organizations by their primary rationale for the employment of terrorism, generally distinguishing two primary types of terrorist, "those who employ terrorism on behalf of an external goal and those whose goal is to carry out acts of terror." (McCormick, 2003, p. 480). This division goes by several names. Groups utilizing terrorism in the pursuit of external goals being referred to as rational, instrumental, or tactical while those whose goal is the action itself being referred to as expressionist, psychological, or strategic respectively. The typological approach therefore assumes that differing groups will have had differing motivational influences and then relates these motivational origins to explain behavioral differences of existing terrorist entities.

Taking an operational code approach to terrorist organizations has several possibilities for informing the research on terrorist motivations below the structural level. The approach benefits from the various influences that push terrorist groups toward the development of a communal identity structure and can capture how that identity is expressed in terms of political beliefs. This allows for the measurement of typological differences between groups based on those beliefs with the potential of differentiating expressive and instrumental terrorist organizations as well assessing one aspect of the terrorist potential of at–a–risk groups.

Terrorist Behaviors

While motivational research is primarily targeted at explaining why terrorism occurs, research into terrorist behaviors is principally concerned with describing those behaviors, explaining the internal processes by which terrorism occurs, what forms it takes and what are the influences upon those forms. This research takes three essential forms. The first is development of theories of terrorist decision–making which can be sub–divided into instrumental and socio-psychological approaches. The second is event data analysis. The third applies the previous two approaches to the study of particular subsets of terrorist behaviors such as suicide attacks. Designed as a means of measuring the political beliefs that impact political behaviors, the operational code approach is most applicable to these areas of study. As will be seen, the importance of political beliefs to the decision–making processes of these entities is significant and is the primary direction of this research project in which the political beliefs measured by the operational code are related to differing behavioral characteristics of al–Qaeda and Hamas.

Behavior as a Result of Decision–Making Processes[9]

The following discussion of the study of terrorist behaviors as the outcome of decision–making processes proceeds in two sections. The first discusses instrumental approaches to modeling terrorist decision–making. The second emphasizes the socio–psychological factors in the decision–making processes. In each section the research discussed concentrates primarily on the processes that lead terrorist organizations to adopt

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[9] A cautionary note regarding research into terrorist decision–making processes is appropriate. Recurrent throughout the literature is the admonishment that considerable research into terrorist behaviors is guilty of over–generalization and that insufficient attention is paid to the wide diversity of individuals involved in terrorism, the variety of types of terrorist groups, and the types of behaviors they engage in (Reich, 1990, p. 276; Ranstorp, 2007, p. 7; Horgan, 2005, 30-32; et al).

specific types of actions. The emphasis is not upon the motivational question of what produces terrorist actions but is instead what are the specific instrumental and socio–psychological factors that influence the timing and kinds of actions that are undertaken.

Terrorist Decision–Making as Strategic Choice

As with motivational concerns, the instrumental approach to terrorist decision–making perceives decisions as the result of rational evaluations of cost, benefit and risk of a unified actor with a knowable set of preferences.[10] As indicated previously, ideology generally provides the linkage between violent action and the ultimate political goal(s) and thus provides motivation for the turn to terrorism. However, the specific means by which individual violent actions can increase an organization's probability of success generally follow one of three instrumental paths (McCormick, 2003, pp. 484-485). Violent action can bring public attention to the group's cause thereby increasing popular support. It can provoke reprisals which increase public sympathy for the group and its cause. It can also demonstrate the weakness of the target while portraying the group as successful, thus shifting the public's perception of the group away from being weak and unable to achieve its larger political objective. These latter two paths may also be directed toward existing group members: reprisals reinforcing the enemy image of the target and demonstration of success reinforcing confidence in the group's ability to achieve its objectives. The types of actions undertaken, the targets of those actions, and the timing of the acts may very well differ depending upon the specific instrumental path chosen. Conceptualizations of instrumental processes of terrorist decision–making occur in several different forms. Some emphasize specific elements

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[10] While it would initially seem that this approach would not be applicable to groups with expressionist motivations this is not necessarily true. For such groups the espoused political goals do not actually serve as strategic objectives, in their place is the need to be able to continue to conduct and escalate violent action.

of the process, such as Haroun (2003) who argued that risk is the primary factor in terrorist

behavioral calculations and that terrorists are often highly risk acceptant. Crelinsten (1989),

Overgard (1994), and Hoffman & McCormick (2004), conceptualized terrorism as differing

forms of communicative process between the group and state in which each action and

reaction were forms of signaling between the parties. Game theoretic models also have

contributed to the understanding of terrorist behaviors by modeling the strategic interactions

between the terrorist organization and the state.[11] Although the number of researchers

employing this approach has been limited, they appear to be increasing. Sandler & Arce M.

(2003, p. 3) cited the relevant academic literature as being composed of a total of nine

articles. Although, recently this has expanded significantly. Evidence for this growth can be

seen in the April 2005 issue of the *Journal of Conflict Resolution* which was devoted

specifically to political economy approaches to transnational terrorism. Authors such as

Ethan Bueno de Mesquita (2005; Bueno de Mesquita & Dickson, 2007), Daniel Arce (Arce &

Sandler 2007a & 2007b), Kevin Siqueira (2005; Sandler & Siqueira, 2006; Siqueira &

Sandler, 2006), are active in this area as are Walter Enders and Todd Sandler (2006).[12] The

appearance of these approaches in non–academic contexts, such as the work on terrorism risk

by Risk Management Solutions™ (Woo, 2002), is also indicative of the utility of this

approach.

However, as McCormick (2003, p. 483) makes clear, the relationship between terrorist

actions and their intended outcomes is indirect. While a terrorist group conducts actions in

order to achieve instrumental objectives, the intention of their action is filtered through both

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[11] Because these approaches necessarily involve the actions of the state they naturally bridge the gap between terrorist behavioral research and research in counter–terrorism.
[12] See also Anderton and Carter (2006).

media portrayal of, and the reactions of its targets to, the action itself. Terrorist groups therefore, necessarily operate under conditions of incomplete information. Further, once an organization has decided to embark upon the path of terrorism the conditions that imposed boundaries on that strategic decision do not disappear. The group may still be forced into suboptimal decisions because of time constraints on the decision–making process and may be forced to employ information filtering in the face of information overload. Although various means exist within rational choice methods for dealing with these issues, the use of strategic models is ultimately a simplifying approach that does not seek to model the reality of the decision–making process so much as to provide a means of relating terrorist action to terrorist objectives. As McCormick indicates "The simplicity of this approach is both its strength and its weakness. It can certainly provide a useful and easily applied point of departure for analysis, but it does not fully capture the processes by which real decisions are made within a terrorist group" (2003, p. 485). Accomplishing this latter task can only be achieved by opening the black box of the unitary actor and examining group processes and other socio–psychological impacts on decision–making. In most instances the exploration of these processes is pursued in terms of deviations from or limitations upon the rationality of the organization's behaviors. While the decision–calculus itself may be altered from a strictly instrumental course by intra–organizational processes and characteristics, the decisions and behaviors resulting from those decisions are attributed to the group as a unitary entity.[13] This is particularly appropriate for terrorist organizations due to their intense pressures for conformity, shared beliefs, low tolerance for dissent, and extremely strong collective identities.

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[13] A notable exception to this general trend are the essays contained in Rapoport (1988a).

Organizational Processes and Socio–Psychological Characteristics

Any group that has made the choice to utilize terrorist means to achieve its objectives has, of necessity, imposed a specific constraint upon its decision–making practices: the need for secrecy. The need for the terrorist group to remain hidden from the state is critical to the survival of an organization which cannot otherwise hope to compete with the overwhelming resources states can bring to bear upon them. Even in the case of relatively open organizations such as Hamas in which the primary decision–makers are known to the authorities, efforts are made to conceal the whereabouts, movements, and exact responsibilities of those individuals.[14] The clandestine nature of the terrorist organization is therefore axiomatic. This has important implications for the group's organizational processes. Even in circumstances where the group enjoys significant popular support, the group experiences high levels of isolation from its societal environment (Crenshaw, 1986, p. 395; Horgan, 2005, pp. 136-137). This sense of isolation is augmented by the performance of violent action. As groups become more successful, the security pressures placed upon them by authorities increase and the need for secrecy becomes more acute. This constrains the social contacts of the individual members. The nature of the actions undertaken by terrorists further isolates them from the greater society since, even in areas in which there is widespread support for the espoused cause(s), there is often significant resistance to the use of terrorist methods. The members of the organization become each others primary social contacts and the resultant isolation is heightened by and, in turn, heightens several characteristics that are often generalized across all terrorist organizations: intense conformity pressures, positive self portrayals, a bias toward action, and belief in the inevitability of success. McCormick notes that a number of theorists have argued that joining a terrorist

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[14] Despite such precautions, the attrition on Hamas leadership by Israel has been significant.

organization occurs primarily through "preexisting social networks" but that as the group

continues to operate "its remaining societal connections are gradually abandoned and

replaced by stronger interpersonal bonds within the group itself." (2003, p. 490). This

increases the cohesiveness of the group and reinforces the strength of the group's collective

identity.

The pressures for group conformity in both actions and beliefs appears to be particularly

powerful within terrorist groups (Crenshaw, 1986, pp. 395-398; Hudson, 2002, pp. 55-56;

Post, 1988; 1990, pp. 33-34; et al). Often strong behavioral controls are enacted (Crenshaw,

1986, pp. 395-396; Post, Sprinzak & Denny, 2003, p. 175). Dissent, if tolerated at all, is

strongly discouraged or relegated to relatively minor operational issues: "It became clear they

could question details, but not whether or not the authorized act should be carried out. The

Islamic terrorists were less tolerant of dissent." (Post, Sprinzak & Denny 2003, 175).

Individualism is submerged in favor of loyalty to the group displayed through espousal of

collective beliefs (Crenshaw, 1988, p. 23) and adoption of the group's goals as their own.

Several authors (Crenshaw, 1986; Post, 1990; Sprinzak, 1990; et al) have noted that this

pressure for conformity, particularly when combined with individuals with weak or damaged

personal identity concepts, results in a powerful collective identity. This is heightened by

high levels of de–individuation that can arise from the presence of an unquestioned, singular

belief structure. Post, Sprinzak and Denny, in their analysis of interviews with 35 Middle

Eastern terrorists, were particularly eloquent on this point:

> "As an individual succumbs to the organization, there is no room for
> individual ideas, individual identity and individual decision–making. As this
> occurs, individual measures of success become increasingly linked to the
> organization and stature and accomplishments within the
> organization…Subjects were unable to distinguish between personal goals
> and those of the organization…"(Post, Sprinzak & Denny 2003, 176).

This dominant collective identity results in a reinforcement of the beliefs of the terrorists members regarding their organization, its role in the larger political environment, and the utility of its actions, and is, in turn, reinforced by the lack of competing belief structures tolerated within the organization.[15]

A second characteristic heightened by societal isolation is the need for positive portrayal of the organization and its actions. Not only does the organization become one's primary social identity, it subsumes the personal identity. To counter potentially unfavorable social comparison it is therefore paramount to both attach high value to one's in–group and to devalue relevant out–groups. Rarely will the organization willingly accept the pejorative label of "terrorist" instead portraying themselves as defenders "of a larger community whose integrity and well–being [are] at risk" (Gurr, 1990, p. 90). Their actions are often self–described as response in kind, necessitated by the aggression of those they target. It is also common for terrorist groups to perceive themselves as the necessary "vanguard" element of a social movement (Hoffman, 1998, pp. 160-161). Members of the organization are portrayed as the only ones smart or enlightened enough, motivated enough, and dedicated enough to accomplish the organizational goals: an explicit comparison between themselves and a directly relevant out–group. Related is the commensurate negative portrayal of the enemy (Crenshaw, 1986, p. 397). Authorities are often portrayed as lazy, weak, and generally

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[15] Contrasting the viewpoint that terrorist organizations are likely to have a shared ideological identity and therefore belief system is Crelinsten: "We tend to have a monolithic view of 'the terrorist', attributing to particular groups a coherence they do not always deserve. This is particularly true in the case of ideology, where many groups are cast in a single ideological mold whereas, in actual fact, they suffer from internal dissension and factionalism."(Crelinsten, 1988, pp. 81-82). In his study of the FLQ actions in 1970 he found striking differences in ideological motivation, and beliefs regarding appropriate tactical and strategic directions between two primary FLQ cells.

incapable of countering terrorist actions, as was the case in bin Laden's portrayal of US

operations in Somalia (bin Laden, 1996). This process is only reinforced by the controls

placed on information interpretation as indicated by Cameron (1997, p. 246): "The group

filters all news of external events that reaches its members, putting an interpretation on such

events that emphasizes the evils of the enemy." These factors have the natural outcome of

reinforcing the impact of the fundamental attribution error upon evaluations of the actions of

both themselves and the opposing authorities, thereby justifying both their own use of

violence and the escalation of that violence.

A third, oft reported, characteristic of terrorist organizations is an overwhelming bias toward

action. While true that in most instances taking violent action is a necessary precondition to

being labeled as a terrorist, the predilection toward action discussed here goes beyond this,

indicating that there are specific pressures upon an organization that has chosen to employ

violence and the threat of violence to accentuate the drive to commit these kinds of actions.

As noted in the previous section on instrumental approaches to terrorist motivation, a group's

adoption of terrorist tactics necessarily involves a belief in the efficacy of violence as a means

of achieving political change. Part of the terrorist portrayal of themselves as the "vanguard"

element is their willingness to undertake action while others that may share their goals are

unwilling to move beyond words. It may be that some types of terrorist may bring an already

existing personal "action orientation" to the organization (Post, 1990, p. 27), or that this trait

is selected upon in recruitment processes. In either instance the preference for action over

negotiation and discussion is prominent in portrayals of terrorist organizations (Crenshaw,

1986; Hoffman, 1998; Laqueur 1987 & 2003; Post 1990; et al). McCormick (2003, p. 487)

links this to an impatience to act. Hoffman (1998, p. 176) noted also that the planning and

carrying out of actions actually had the effect of relieving group stress and was therefore the

preferential operating mode for such groups. This need to act is exacerbated by the need for

the group to continue to be relevant by being the object of media attention: garnered

principally through increasingly violent actions (Hoffman, 1998, pp. 176-177). This can also

be accentuated by circumstances in which the terrorist group is in active competition with

other groups (terrorist or otherwise) for a constituency base (Crenshaw, 1986; Jenkins, 1981;

Laqueur, 1987).

A fourth common characteristic of terrorist organizations, one that Hoffman (1998, p. 169)

has gone so far as to describe as being common to all terrorist organizations, is their belief in

the inevitable success of their efforts. The accomplishment of their stated instrumental

objectives is presented both to the outside world and to its own members as predestined.

Questioning the inevitability of these objectives would force the terrorist into a

psychologically traumatic state of having to admit that their actions of violence, internally

justified as being necessary for the attainment of their political goals, may have, in fact, been

in vain. In this way the unwavering belief in the eventual successful outcome serves as a form

of moral disengagement process, (Bandura, 1990) allowing the terrorist organization to

continue to commit violent actions without facing the moral implications of those actions.

The singular collective identity, reinforced by societal isolation, pushes the decision–making

processes of the terrorist entity into a tightly constrained form: incoming information

becomes highly filtered through the communal belief structure and dissent is portrayed as

disloyalty even as time constraints for decision making are acute. The pressure to achieve

consensus without conflict, that results from these factors, is indicative of the presence of

"groupthink" effects described by Janis (1972). Examples of such effects noted as being present in terrorist decision–making include perceptions of group invulnerability leading to high levels of risk acceptance and excessive optimism; rationalization of self behaviors leading to disregard for usual moral constraints on behavior; unquestioned belief in the correctness of group morality and thereby disregard for the consequences of group actions; negative stereotyping of opposing forces; and direct pressures to conform including self censorship to preserve group consensus (Crenshaw, 1986, p. 397; Hudson, 2002, p. 54; McCormick, 2003, pp. 488-489; Post, 1990, p. 36; see also Pearlstein, 1991; Post, Ruby & Shaw, 2002a). These factors can also feed back into the conditions that gave rise to groupthink creating a loop that intensifies the constraints on the group's decision–making processes. Together, these characteristics of terrorist organizations and their decision–making processes have the cumulative effect, according to most, of pushing these organizations toward an escalation of violence.

The Impacts of Individual Psychology

Many discussions of the impact of an individual's psychology on terrorist behavior are directly related to how specific individual motivations augment the tendency toward violence escalation. Post's 'psycho–logic' arising from the narcissism–aggression hypothesis (1990), Bandura's emphasis on desensitization (1990), and Knutson's attention to the presence of an individual's 'negative identity' (1981), each indicate not only a potential motivation for an individual's desire to undertake terrorist behaviors but also contain elements that push individual members toward the use of greater degrees of violence. However, regardless of the individual's motivational factors it is likely that their beliefs and behaviors will become increasingly dominated by the those of the group; "For whatever reason individuals assume

the role of terrorists, their transformation into terrorists with a political or religious agenda takes places within the structure of the terrorist group. This group provides a sense of belonging, a feeling of self–importance, and a new belief system that defines the terrorist act as morally acceptable and the group's goals as of paramount importance." (Hudson, 2002, p. 52). Therefore, more frequently, discussions of the impact of individual psychology upon terrorist behaviors address how an individual's psychology accentuates the impacts of the socio–psychological characteristics discussed previously. Damaged or weak individual identities, in particular, are referred to as facilitating the submergence of the individual into the collective (Bollinger, 1981; Crenshaw, 1986, 1990; Louis, 2004; Post, 1990; Shaw, 1986; Taylor & Sprinzak, 1990; et al). Rarely however, is the psychological profile of a single individual portrayed as directly impacting the behavior of a terrorist organization. The submergence of the individual identity to that of the collective identity of the group essentially trumps individual psychological factors. The fact that terrorist organizations have been known to employ methods of accentuating this process, with particular emphasis on magnification of the social isolation that draws the group together,[16] demonstrates the value they attach to the resulting communal set of beliefs and collective identity.

A notable exception to the limited impact of individual psychological factors on group behavior may occur in organizations that approximate cult conditions: small organizations under the direct control of a single authoritarian, charismatic leader such as Shoko Asahara of Aum Shinrikyo (Lifton, 1999). In these relatively rare cases, the individual psychology traits of the leader may well dominate decision–making and therefore require detailed analysis at the individual level in order to adequately comprehend the actions of their terrorist

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[16] An example of such efforts is the use of the *jamaat* in jihadist organizations to test the commitment of recruits to the organization (Jenkins, 2006, p. 88).

organization. This situation is however particular to this specific type of group; the mere presence of a charismatic leader is not sufficient. In most terrorist organizations, the leader is still constrained by group processes. Crenshaw noted that the constraints may even be greater for leaders as "the ideological purity of the leader must be above question; the leader must be the chief interpreter and communicator of the group's beliefs and aims. Leaders are, thus, under great pressure to conform to group norms, making innovation or compromise difficult." (1986, p. 399).

A second exception to the dominance of the group effects on terrorist behaviors is the phenomena of individual disengagement from the terrorist organization. In the case of voluntary disengagement, the traits of the individual again rise in importance since, of necessity, the explanation entails the means by which the individual rejects the collective identity of the group. Post points out that disengagement for the terrorist with expressionist motives may not be psychologically feasible; "Terrorists whose only sense of significance comes from being terrorists cannot be forced to give up terrorism, for to do so would be to lose their very reason for being." (1990, p. 38). Short of this condition however Horgan notes several important means by which disengagement can occur. These include the growth of individual disillusionment with the goals being pursued by the group or the means used to pursue them, a shifting of individual priorities following prolonged personal investment in the organization with increasingly unsatisfactory personal returns, and the inability to continue to manage group and organizational psychological pressures (Horgan 2007, 117-118; 2005, 144-149). Testament however to the still powerful group effects is the fact that turning one's back on the path of terrorism is a rarity (Staub, 2003, p. 9) and that many of those that leave

an organization (voluntarily or otherwise) often continue to express support for the group's aims and actions (Post, Sprinzak & Denny, 2003).

Behavioral Impact on Motivation

While still maintaining that it is useful to distinguish between organizations with instrumental and expressive motivations, McCormick points out that group behavior is not "necessarily consistent over the course of their operational life." (2003, p. 480). The centrality of the collective group identity, and the pressures for violence escalation raise the question of whether or not behavioral constraints and the behaviors resulting from them can propel an organization from the instrumental to expressive use of violence. An increased emphasis on the use of violence and the escalation of the type and frequency of that violence do not necessarily imply a motivational shift toward expressive violence. If however, they occur as a result of the substitution of the group's instrumental goals with goals that can only be met by expressive violence, then this would represent a motivational shift. Several authors have commented on this potential. Staub has argued that this substitution can occur simply as a result of the increased group radicalization that results from isolation: "Over time some groups become more radical, their ideology more extreme, the means by which they attempt to achieve their ideals more violent. Violence can become the end rather than the means." (2003, p. 9). Crenshaw citing Wilson (1988, p.21) indicated that over time these kinds of organizations are likely to substitute "group solidarity for political purpose" as their "dominant incentive" for the pursuit of violence. Post, (1987; 1990) has argued that the collective identity of the group is so central to its members that the survival of the organization can become their primary goal, even in the face of having largely achieved its original instrumental goals. These and other analysts share a common theme in that violence

may become an end in itself, and thereby provide several routes by which engagement in terrorist actions can engender a switch from instrumental to expressive motivation.

Behavioral Studies and Event Data Analysis

The second major approach to examining terrorist behavior entails the statistical use of incident chronology databases. While much of this work is still devoted to the generation of descriptive statistics for the public and policy officials, there continues to be a growing portion of research into terrorist behaviors that leverage the strengths of inferential statistical analysis in order to explore a growing number of subject areas. The vast majority of research in this area makes use of the several large incident level databases that are available. The most prominent of which are the Control Risks Group Data Base, the RAND Terrorism Chronology database, the RAND – MIPT (Memorial Institute for the Prevention of Terrorism database, the International Terrorism Attributes of Terrorism Events (ITERATE) I, II and III data sets, the Centre for the Study of Political Violence Data Base Project, and the International Policy Institute for Counter Terrorism (ICT) database (Ross, 2004, pp. 31-32). The variety of questions examined by these approaches has continued to grow in parallel to the development, which began in the 1970s, of these databases. Some of the earliest research utilizing these approaches was done by Midlarsky and others modelling the spread of transnational terrorism as a contagion phenomenon (Midlarsky 1970, 1978; Midlarsky, Crenshaw, and Yoshida 1980). Today's quantitative literature on terrorist behavior spans the gamut of terrorist behavioral characteristics including who commits terrorist actions, what types of terrorism occur, what tactics are used, how terrorism spreads, what targets are selected, and the interrelations of these characteristics. Some limited work has also been done in testing the impacts of various motivational and decision–making characteristics (Newman,

2006) although as indicated by Silke (2001, pp. 65-68) this remains an underutilized and badly needed component of research in this field.[17] Without question the most prolific of academic contributors to this area of analysis have been Walter Enders, Todd Sandler and their various research partners (Enders & Sandler, 1993, 1996, 2000, 2002, 2004, 2005; Enders, Sandler & Parise, 1992; Sandler & Enders 2004). Other prominent work in this area has been done by Barros & Proenca (2005), examining the characteristics that are associated with an Islamic terrorist attack such as location, number of casualties and type of attack. Drakos and Gofas (2006) looked at distributional tendencies in attacks in order to evaluate the value of event forecasting, and Clauset, Young, and Gleditsch's examined of the frequency of severe terrorist events (2007). The primary complaints leveled against these approaches remain methodological. Most of the major data sets only include data on transnational terrorism (Crenshaw, 1992, p. 4; Ross, 2004, p. 31) limiting the ability to perform true cross–national studies. Data collection also remains an issue as reporting differences between the major databases and potential coder reliability issues continue to be present. Systematic over– or under– reporting of actual events vis–à–vis the recording of hoaxes and the lack of recording of prevented operations remains a prominent problem as does the infrequency of events (Mickolus, 2002; Sinai, 2007, pp. 43-44), although some of these issues are being mitigated by the growing sophistication in the use of statistical techniques applied to these data sets. Despite these issues the statistical use of incident level databases remains a growing and significant element of the research into terrorist behaviors.

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[17] Much of this work also touches on the areas of terrorism impacts and evaluations of counter–terrorism efforts.

Issue Specific Research

The third major approach to examining terrorist behavior centers upon the explanation or elucidation of specific behaviors.[18] The most prevalent issue areas with regard to this form of research are the role of organizational structure on behavior, terrorist financing, the role of the internet, Chemical, Biological, Radiological, Nuclear (CBRN) weapon acquisition and usage, suicide terrorism, and religious terrorism. Most works in these areas cover multiple aspects of the behavior: defining the behavior, and differentiating it from other forms of terrorism, discussing motivational issues specific to that form or how the form of terrorism is unique in its motivating characteristics, charting, detailing, and forecasting behaviors associated with that issue, noting the impacts or potential impacts of that form of terrorism, and addressing means of countering it and the effectiveness of previously attempted counter–terrorism strategies toward it. Issue specific analyses have been castigated as a weakness of the field as a whole, Silke (2001, 2-3), while Ranstorp (2007b, 10-11) and others have remarked on the issue orientation of the field with research interest migrating from one hot topic to another. Some of this is probably driven by the changing needs and requests from the policy community, and the academic community's struggle to provide policy relevant materials. It is probable that the primary issue specific research areas presented here are symptomatic of this tendency. Certainly the perceived rise in mass casualty attacks over the last decade has helped to accentuate concerns over CBRN terrorism. Likewise the intense focus, since 9/11, on issues related to al–Qaeda such as organizational structure, suicide attacks, and religious terrorism, is also not unexpected.

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[18] Considering issue specific research as a third approach is not to say that this research is atheoretical but rather that the focus of the research is on explaining the behavior and not the provision of a theoretical framework for the behavior.

Organizational Structures

Arquilla, Ronfeldt & Zanini (1999) wrote the seminal piece on changes in organizational

structure of sub–state actors and the impacts of these new forms upon their behaviors and

counter–terrorism efforts. Much of the research since that time has emphasized various forms

of organizational typologies. Groups are classified according to their organizational structure

and their behavioral differences are related to the varying forms of, principally, command and

control structures within them (Jackson, 2006). Particular attention has been paid to various

forms of networked groups or "networks of networks" and differentiating between diversified

forms of decentralized control such as Mishal and Rosenthal's exposition (2005) on the

'dune' structure and its application to al–Qaeda. A more involved look at terrorist

networking, extending from how terrorist organizations emerge from existing social

networks, to differing types of organizational structures, to detailing the myriad of affiliated

connections between transnational terrorists networks, is Sageman (2004).

Terrorist Financing

While not nearly as extensive as other issue specific areas, examination of terrorist financing

is a growing but specialized area within the study of terrorist behaviors. Levitt represents a

brief overview of the financing literature. Although he examines the issue specifically as it

applies to terrorism arising in or from the Middle East, he also provides a good look at the

directions in which more generalized financing research is directed. The loosely affiliated

networks of financing that are described in this literature are also referenced in the work on

organizational structures. Exploration of criminal funding sources as well as the use of

legitimate charities also feature prominently in research on terrorist financing. These issues

are also found in more policy centric work in this area as is typified by the report on terrorist

financing prepared by the Council on Foreign Relations (2002). More narrowly focused

research is also common such as the research into non–formal fund transfer systems by

Passas (2003). Ehrenfeld's (2003) look at financing networks of the PLO, Hezbollah, Hamas,

Islamic Jihad, al–Qaeda and others directly relates terrorist funding to the oil and illicit drug

trades and typifies much of the research in this area in that it is both explicitly partisan and

targeted at both the policy community and general public.

Terrorist Use of the Internet

 Often included as an element in discussions of the relationship between transnationalism and

terrorism such as Cronin (2002), the research on terrorist use of the internet focuses on

discussions of two specific classes of behavior made possible by internet access: those uses

which facilitate traditional operations of the organization, and the use of the internet to

conduct attacks or cyber–terrorism. Within this first class, researchers have expounded upon

a number of advantages internet access has afforded terrorist organizations including: easier

and wider dissemination of propaganda regarding their cause; greater access to potential

recruits, especially those across state boundaries; ease of information dissemination amongst

organization members resulting in better coordination of activities and the ability to

effectively operate over greater distances; increased access to information valuable to their

activities (ranging from train schedules to information regarding CBRN construction);

improved financial solicitation opportunities and funding management; and others (Arquilla,

Ronfeldt & Zanini, 1999, pp. 119-120; Damphousse & Smith, 2002, pp. 232-238; Denning,

1999; Fleming & Stohl, 2000, pp. 38-41; Rogers, 2003, pp. 73-76; Thomas, 2003). The

second class of behaviors "covers politically motivated hacking operations intended to cause

grave harm such as loss of life or severe economic damage." (Denning, 1999). The major

issue within this area is evaluation of the likelihood of such attacks. Church articulates the

attitudes of most prominent authors arguing that even today's terrorists, lack the motivation, capabilities, and/or skills to carry out successful attacks on critical infrastructure in the United States (Church, 1997). Fleming and Stohl (2000, pp. 43-53) while agreeing with this general assessment do note the attractiveness of this tactic to terrorist organizations. To that end they provide a typology of terrorist group types, relating each to propensities for cyber–terrorism and the likely forms that cyber–terrorism might take (Fleming & Stohl, 2000, pp. 49-53).

CBRN Terrorism

The subject of CBRN terrorism has been a hot topic in terrorist studies since the 1970s, bolstered by continued governmental interest in the subject . Several US government commissions were convened to study the problem in the 1990s (Jenkins, 2006, p. 147) and interest in both the policy and academic communities has remained high. As Mockaitis (2003, p. 207) indicated "The devastating conventional attacks of 9/11 notwithstanding, weapons of mass destruction (WMD) continue to pose the greatest threat to states plagued by terrorism. For the past several years, researchers have focused on this threat, and nothing in the recent attacks has caused them to change their minds." Generally the CBRN terrorist literature in the behavioral area has centered around two questions. Would terrorists groups seek to use CBRN weapons, and how easy would it be for them to do so? When answered in the affirmative the first of these two questions becomes directly related to questions of what types of terrorists would be most likely to seek to use CBRN terrorism and under what conditions. The latter question takes on a behavioral component when explored in the context of how a terrorist group would go about acquiring CBRN capability. The literature is primarily concerned with the characteristics of terrorist groups that would make them more or less likely to seek out CBRN capability. Some however have argued that focus should be

shifted more toward the environmental characteristics that make acquisition and usage more likely (Blum, Asal & Wilkenfeld, 2005, p. 135).

The issue of whether or not terrorists will seek to use CBRN capabilities primarily centers around the proposition put forth by Brian Jenkins that "terrorists want a lot of people watching and a lot of people listening and not a lot of people dead." (Jenkins, 1975) and therefore the use of CBRN capability is likely to be counter productive . Opponents of this view (Hoffman, 1995, 1997 & 1998; Laqueur, 1999) primarily cite the rise of attack lethality and the increase in religious terrorism, with a commensurate decrease in behavioral constraints, as factors indicating a greater probability of desiring CBRN capability. Various authors (Dolnik, 2003; Parachini, 2005; Rapaport, 1999) have questioned the connection to religious terrorism but there does seem to be broad agreement that terrorist actors are demonstrating increased interest in CBRN acquisition. Necessarily this leads to examination of the various paths by which acquisition can occur and the, often policy driven, evaluations of the likelihood of achieving CBRN capability (Cameron, 2004). A third question then arises as to how CBRN capability is most likely to be used. Citing difficulties in effective weaponized deployment several authors (Rapoport, 1999; Sprinzak, 1998b) have concluded that the primary CBRN threat lies in tactical usages rather than mass casualty attacks . Still the presence of even minimal capability opens the options of attack threats and hoax scenarios for the CBRN terrorist organization (Combs, 2000,p. 124). Having achieved widespread agreement on the primary areas of discussion as well as the most pertinent positions within those areas, the study of CBRN behaviors in terrorism is currently threatened by a form of ossification. Ackerman (2005, 140), citing a survey of more than 120 sources on all aspects of CBRN, indicated that this area of research, has become somewhat stagnant in

its repetition of interpretations and is in need of exploration of new or previously limited

directions. He specifically cites three such directions: use of current CBRN knowledge to

inform threat assessments; exploration of the potential for cross–group cooperation on CBRN

acquisition and usage; and the pursuit of "second–order" questions such as how long will it

take before such organizations acquire CBRN capability. A unique response to this stagnation

is that of Cordesman (2002) who provides a unique way of approaching the specific issue of

the biological threat, offering his "Buffy" paradigm to describe a situation dominated by

almost universally uncertain or incorrect expertise, outdated or outmoded knowledge and

research, shifting threats, and an ever present risk of catastrophic failure.

Suicide Terrorism

The issue area of suicide terrorism has been something of a growth industry, particularly

since 9/11. In his review of terrorist studies literature Silke notes that the percentage of

articles addressing suicide terrorism has increased from 0.5% prior to 9/11 to 11.5% post 9/11

and has prompted some to push for the "creation of a sub–discipline of suicide terrorism

studies." (2007, p. 86). Most efforts engaging multiple aspects of the primary questions of the

field: who commits these actions; how are the actions committed; and why engage in suicide

operations. There is some minor debate within the field on exactly how to define "suicide

terrorism." See Merari (1990, pp. 193-196), Pape (2003, p. 345) and Ganor (2007) for

examples of the relevant issues. As with more general profiling of terrorists there seems to be

no consistent profile for a suicide terrorist. Some general characteristics have been put forth

(Hoffman 2003, 338-339; Kushner 1996, 37-39; Merari, 1990, 205) but as Hoffman (2003),

Sprinzak (2001), and Pape (2003) make clear there, is no universal profile that can be

applied, no common psychopathologies, and terrorist organizations have proven to be very

adaptive in changing the profiles of their suicide attackers in order to evade counter measures.

Similar difficulties arise in the profiling of suicide operations themselves although several

works include some descriptions of the operational details of suicide attacks including: types

of devices used, detonation techniques, favorite targets, and modes of infiltration (Hoffman,

2003, pp. 338-340; Kushner, 1996, pp. 41-42). Much greater attention has been paid to the

processes by which an individual becomes a suicide terrorist including the recruitment,

education, and training processes involved. While there is some contention over the issue, the

position articulated by Merari, "that no organization can create a person's basic readiness to

die. The task of the recruiters is not to produce but rather to identify this predisposition in

candidates and reinforce it." (Sprinzak, 2002), is generally held to be the consensus. The

indoctrination and training processes serve instead to "minimize risk of failure, exposure, and

wasting of resources" (Moghadam, 2003, p. 87) and the general characteristics of these

processes have been well described by various authors (Hoffman, 2003; Kushner, 1996;

Meraari, 1990; Moghadam, 2003; Sprinzak, 2002).

A second major point of agreement within research into suicide terrorism is the understanding

that rarely if ever is it an individual act. It requires an organizational structure behind it to

address the motivational and operational difficulties involved in such operations (Sprinzak,

2001, p. 69). While the need for an organizational structure for the handling of operational

concerns such as training in how to handle explosives, target selection, acquisition and/or

construction of explosive materials, etc. is fairly straight forward, exploration of the juncture

of the individual and group motivations is less clear. Pedahzur (2004) and others have argued

that the question of why conduct a suicide action involves decision–making at both the group

and individual levels. Several explanations for the use of suicide terrorism at the group level

have been put forth with most arguing that said decision is the result of an instrumental evaluation of the costs and rewards associated with said actions. Why then are suicide operations so attractive to terrorist organizations? Suicide operations entail a significant number of tactical advantages over conventional operations (Boaz, 2007; Tosini, 2007, p. 10) thereby increasing the potential success of the operation. More importantly however are the potential rewards to the organization. Such attacks are particularly advantaged in attracting media attention, inducing a level of fear in the targeted populous, and in demonstrating (both internally and externally) commitment to the cause, (Boaz, 2007; Hoffman, 2003, pp. 341-342; Sprinzak, 2001, pp. 66-67). Pape (2003) also notes that these advantages make suicide terrorism effective for both demonstrative (those seeking attention to their cause) and destructive (those seeking to inflict damage or punishment) terrorist groups thus an instrumental decision to use suicide terrorism can be made by groups with either instrumental or expressive motivations. Most crucial however, as indicated by Pape (2003), suicide operations have always been carried out as part of a larger strategic objective and they have been generally successful in obtaining some limited portion of those objectives. "Perhaps the most striking aspect of recent suicide terrorist campaigns is that they are associated with gains for the terrorists' political cause about half the time" (Pape, 2003, p. 351). Terrorist organizations resort to suicide attacks ultimately because they work. Supporting the contention that resorting to suicide operations is usually an instrumental decision is evidence that organizations also tend to desist in its usage when its immediate objectives have been met (Kramer, 1990, pp. 148-149).

Explanations for why individuals are willing to become suicide attackers also come from a variety of sources but are relatively less well developed. The promise of rewards in the

afterlife or that one's family will be taken care of after martyrdom are commonly cited (Kushner, 1996, p. 40) but are obviously of limited general application. Issues of maintaining personal identity or the desire to achieve some form of lasting notoriety are also common (Harrison 2003) and appear to be more broadly applicable. High levels of prestige were also associated with those who had "martyred" themselves for the cause (Post, Sprinzak & Denny, 2003) however, it seems most probable that the commitment to a suicide operation provides some form of both tangible and intangible benefits to the individual and that these benefits vary from case to case often involving multiple reinforcing elements from the individual, group, and societal levels (Moghadam, 2003, p. 87). With regard to the relationship between religion and suicide operations nearly all agree that there is no specific linkage between the two. Dolnik (2004) indicates that less than a third of the 400 suicide attacks since 1990 were conducted by religious organizations. Pape (2003), Merari (1990) and Boaz (2007) all concur with the finding that suicide terrorism is "not the product of religious fervor, Islamic or otherwise." (Sprinzak, 2001, p. 68). The connection, to the extent that there is one, is the prevalent use of religious doctrine to provide a moral justification for the suicide. While this may be particularly difficult for Islamic organizations due to the strict nature of the prohibitions against suicide, both Kramer (1990, pp. 144-147), in describing the processes used by Hizbollah leadership to defend their use of suicide attacks in the 1980s, and Wiktorowicz (2005a) , in his examination of how various Salafist teachings and writings are used to interpret Islam into similar rationales, demonstrate the means by which this justification can occur.

Religious Terrorism

The research into the intersection of religion and terrorist behavior is characterized by the premise that terrorist organizations with a primarily religious aspect to them behave in ways that can be usefully distinguished from their secular counterparts (Hoffman, 1995 & 1998; Jurgensmeyer, 1988 & 2003; Laqueur, 1999). To that end it presupposes that religious and secular organizations can be distinguished from one another and that there exist significant behavioral differences between the two types. There is, by no means universal agreement on these points. A frequently held alternative is that the religious aspect of organizations is used to justify or otherwise place into context the instrumental aims of the group and therefore serves the same purpose as that of a secular ideology (Karawan, 2005). Several authors hold that distinguishing between the two types is rarely straightforward, and that the behavioral and motivational characteristics reported to be particular to religious terrorist organizations are either not generally present in them or are also present in secular organizations (Dolnik, 2003; Parachini, 2005; Rapoport, 1999). Those that do perceive a relationship between the religious terrorist and behavior note that there has been a rise in the number of terrorist organizations that have claimed at least some religious aspect to their cause. Along with this increase there has been an increase in the lethality of terrorist attacks over the last decade and religious groups are disproportionately responsible for the fatalities. In seeking to explain this relationship they point to several common characteristics of religiously inspired terrorists. Such organizations are less likely to have their behavior limited by the "political, moral or practical constraints" that limit secular organizations (Hoffman, 1998, p. 94; Wiktorowicz, 2005a) particularly since divine authority replaces the need to maintain a constituency group. They are more prone to use attacks as a form of punishment or retribution; eschewing specifically instrumental uses of violence, and may therefore be more prone to the use of

expressive violence (Jenkins, 2006, pp. 78-79, Jurgensmeyer, 1988 & 2003; Ranstorp, 1996; Rapoport, 1990).[19] Jurgensmeyer (1988 & 2003) is particularly clear that acts of violence by the religiously inspired are likely to have meaning outside of the simple achievement of instrumental goals. The target selection of religious terrorists is more likely to be indiscriminant; targeting often being based on a black and white view of "believer and unbeliever" (Hoffman, 1998, p. 95; Wiktorowicz, 2005a). Religious organizations likely have an advantage in recruitment for suicide operations because of their ability to appeal to the martyrdom traditions in most major religions (Merari, 1990; Ranstorp, 1996; Rapoport, 1990; Wiktorowicz, 2005a). General recruitment may also be advantaged due to the presence of a known ideology, an in–place justification for overcoming moral objections to violence, the presence of an already existing constituency with a common belief structure, and the ability to couch a call to action in terms of a religious obligation (Gerwehr & Daly, 2006; Sedgwick, 2004). The presence of a common set of religious beliefs, particularly as adopted for the justification of violence, has also been cited as a strengthening factor in the development of the presence of a collective identity as has an emphasis on the specific religious community as a persecuted entity (Hellmich, 2005; Jurgensmeyer, 2003; Seul, 1999). While these traits are generally applicable to a broad range of religious traditions,[20] some analysts have sought to examine the specific characteristics of Islam that may impact the behavior of terrorist organizations.[21]

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[19] See also Kramer (1990) who notes the ability of Hizbollah leaders to use Islamic discourse to invest acts of non–instrumental violence with meaning particularly through the use of symbolism to transform these acts into sacred deeds.

[20] Hoffman (1998) for example applies them to Islamic and Jewish groups as well as Christian white supremacists and the Aum Shinrikyo cult.

[21] Kramer (1987) takes this a step further specifically looking at Shi'ite inspired terrorists.

Justification for this emphasis on Islam is drawn from both the recent increase in number of specifically Islamic terrorist groups as well as the contention that, as Rapoport (1984) and others have argued, Islam is particularly advantaged as justification and motivation for terrorist violence because of its inexorable linkage between the religious and political spheres. Some, such as Monroe & Kreidie (1997) hold that the influence of fundamentalist Islam on these groups creates a intrinsic cognitive difference that inhibits the utility of rational choice approaches. Essentially, Islamic fundamentalism as an identity implies a preference set that is substantially different from other terrorist entities, including other religious groups. Assumption of the same or similar preferences to the general population of terrorist entities may therefore result in erroneous conclusions regarding their behavior. Kramer (1990, pp. 150-151) is another example, indicating that Islam or other religions can be used to construct a kind of "moral logic" unique to the religious terrorist, in order to justify actions that would normally be constrained by moral boundaries. Other analysts such as Schwartz (2002) contend that while there is no particular link between Islam and violence, specific Islamic writings do lend themselves easily to misinterpretation as justification for its use, and may, therefore, impact the level of violence perpetrated by Islamic extremist groups. Still others have suggested that certain Islamic elements, because of their grounding in Islamic revivalist traditions, are particularly adept at the construction of a collective identity that is centered around perceived persecution of the faith and the role of the terrorist group as the defender of that faith against both external and internal foes (Hellmich, 2005).

Impacts and Costs of Terrorism

Whether engaging in violence out of instrumental or expression motivations, terrorists expect

their actions to have an effect upon their targets. Measuring the effects of terrorism and

counting the costs associated with them is therefore a crucial, and far–ranging, sub–field

within terrorism studies. For the sake of simplicity in this literature review, research in the

area of the costs associated with terrorism can be placed into three categories.[22] The first of

these are the purely physical impacts such as casualty levels, environmental damage, and long

term health impacts. The second are the economic impacts; literally the *costs* of terrorism

measured across a wide range of indicators. The third are the psychological consequences to

the victims on both the societal and individual levels.[23]

Most general evaluations of the physical harm caused by terrorist actions make use of

statistical data regarding the number of terrorist incidents and/or the number of casualties or

injured.[24] A decreasing rate in the number of terrorist incidents and a relatively steady number

of casualties across time have led most to conclude that recent trends (over the last decade or

so) indicate an increase in the lethality of terrorist attacks (Enders & Sandler, 2002; Hoffman,

1998; US State Department, 2004a). Perhaps surprisingly Enders and Sandler (2005) were

able to discern no alteration to the deaths and casualty time series in the post 9/11

environment. Other researchers such as Sutton (1994) have compiled data on casualty totals

for specific conflicts or campaigns. While easily the most prevalent, studies involving

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[22] Some impact research defies easy categorization such as Stecklov & Goldstein (2004) who examined the impacts of terrorist attack on Israeli driving behaviors.

[23] Obviously these are not mutually exclusive categories and the effects in each clearly affect the others such as increased perceptions of the risk of air travel at the societal level causing financial loss to the airline industry.

[24] These values have varied considerably over time and casualty figures in particular are highly influenced by the presence of the relatively few mass casualty incidents that have occurred (Frey, Luechinger & Stutzer, 2007, pp. 2-4).

casualty levels obtained from incident level data are certainly not the only means of measuring the physical costs of terrorist operations. Estimates of property damage, usually incident specific, are also frequent, although significant portions of this research comes from non–academic sources (Bram, Orr & Rapaport, 2002; Navarro & Spencer, 2001; US–GAO, 2005). Similar work can also be found in the area of environmental studies (Rappaport, et al, 2004).

Related to these kinds of studies are those that measure the economic consequences of terrorism. The work of Frey, Luechinger & Stutzer (2007) provides an excellent overview of the variety of indicators that have been used as well as the primary research efforts in each area.[25] Costs to specific industries such as the airlines (Blunk, Clark & McGibany, 2006) can often be found for whatever industry one happens to be interested in researching but as a more broad based indicator the effects on the tourism trade is particularly common (Drakos & Kutan, 2003; Enders & Sandler, 1991; Enders, Sandler & Parise, 1992, Sloboda, 2003). Other frequently used indicators of economic costs have included: foreign direct investment (Enders & Sandler, 1996), savings and consumption (Fielding, 2003a), investment levels (Fielding, 2003b), stock market responses (Chen & Siems, 2004), foreign trade (Nitsch & Schumacher, 2004), urban population development (Glaeser & Shapiro, 2002) and macroeconomic growth (Blomberg et al, 2004).

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[25] See also DeLisle (2002) for another example of a cost study that employs multiple economic indicators. Jackson et al (2007) also provides a review of the literature as they develop "a framework capturing the full range of costs that may result from economic targeting" based on the effects of 9/11 and the terrorist campaign of the Provisional Irish Republican Army.

Numerous studies have been also been done on the psychological impacts of the victims of terrorist attacks, indicating that the long term effects can be persistent and severe (Difede et al, 2002; Tucker, et al, 2007; Whalley & Brewin, 2007;). High incidences of post traumatic stress disorder and related conditions are particularly common (Galea, 2003; Verger, et al, 2004; Yehuda, 2002). The number of socio–psychological effects related to terrorist incidents is potentially limitless. A special issue of *Political Psychology* (September 2002) devoted to the effects of 9/11 gives a good indication of the wide variety of effects that can be studied having included articles on alterations in public opinion regarding levels of trust and cynicism toward the government (Chanley, 2002); examination of the higher perceived risk of terrorism (Huddy, et al, 2002); impact on presidential approval (Schubert, Stewart & Curran, 2002); and several others. More recently, a study by Eidelson and Plummer (2005) explored how 9/11 altered American belief systems regarding "their personal worlds, their American national group, and their perceptions of the American national group's shared beliefs about itself."[26] Attention has also been brought to the sociological impact of governmental reaction to terrorism, in particular the curtailing of civil liberties (Baker, 2003; Heymann and Kayyem, 2004; Leone & Anrig, 2003). Despite the generally deleterious effects associated at both the personal and societal levels, there are strong indications that although terrorist actions are quite adept at provoking high levels of fear, they are largely unsuccessful at achieving substantive, long–term attitudinal changes (Bleich et al, 2003; Friedland & Merari, 1985). Also encouraging are the findings of Silke (2003a, p. 200) who concludes that "even wide–spread and long–lasting campaigns of terrorist violence can have a surprisingly limited detrimental impact on the overall psychological health of the society."[27]

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[26] See also Traugott, et al (2002) for an examination of public reactions to 9/11.
[27] See also Goodwin, et al (2005) for an overview of the effects of threat perception.

This brings us to the question of whether the various effects, studied in the above noted research, have resulted in success for the terrorists in reaching their instrumental and/or expressive goals? If their goals are to garner publicity and bring attention to their cause then there is no question that modern technology and the effectiveness of the modern media have translated into greater publicity. Whether a suicide bombing in Haifa or the events of 9/11, terrorist actions are broadcast around the world in a matter of minutes of their occurrence. Hoffman (1998, pp. 131-142), argues that terrorist incidents have had dramatic effects on news services and reporting, accentuating if not actually being a contributing cause of the shortened news cycle. Provision of near constant news coverage reinforces the perception of both the threat and impact of terrorism and in some instances can increase sympathy for the plight of those the terrorists claim to represent (Nacos 2007, 94-97). Hoffman does note that in spite of, or perhaps because of, the increased media attention devoted to terrorism and its perpetrators, there has not been increased support amongst the public for their causes (1998, p. 143). However, Pape (2003, p. 344) has demonstrated that, in the case of suicide operations, terrorists have been moderately successful in achieving limited instrumental aims, such as the removal of French and US troops from Beirut following the 1983 suicide bombings. Evidence is also fairly strong that terrorist campaigns have been successful in the influencing of Israeli electoral outcomes (Berrebi & Klor, 2006) and/or destabilizing the Israeli/Palestinian negotiation processes (Kydd & Walter, 2002). Pape (2003, p. 356) is quick to point out however that suicide campaigns may be limited in their ability to achieve the more ambitious aims of the terrorists. In fact, with very few exceptions a striking feature of the use of terrorist violence has been its lack of success in achieving an organization's "long term ideological objectives" (Crenshaw, 1988, p. 15). While suicide operations have had success in achieving limited short–term objectives (Pape 2003, 351-354) achievement of

long–term instrumental goals by means of these actions remains elusive (Pape 2003, 344 & 355-56).

While limited in its applicability to research concerning the costs and impacts of terrorism, the operational code approach can speak to the impacts of the actions of terrorism upon the beliefs of the terrorists themselves. Do successful actions or campaigns result in shifts in the group's beliefs? Are their belief structures altered by high profile or catastrophic events, and if so, in what ways? Similarly, the operational code approach can be a useful addition to the toolbox of those studying the final major component of terrorism studies: counter–terrorism, through the provision of a means of measuring the impacts, if any, of various counter–terror strategies upon an organization's belief structure.

Counter–Terrorism Research

Research on counter–terrorism exists as a distinct subfield as well as appearing as an element in the research conducted on motivations, behaviors, and impacts. Works in each of these areas often include a portion devoted to the counter–terrorism implications of their research. In addition there are also a significant number of works devoted specifically to the various forms counter–terrorism measures can take and evaluations of these various counter–terrorism techniques.[28] More explicitly evaluative studies also exist in the area of comparative analyses of broad based counter–terrorism strategies. To a lesser extent the field

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[28] A wide variety of techniques are applied across this literature. In particular operations research techniques continue to play a significant role. A summary of this literature can be found in Wright et al (2006).

is also concerned with issues such as how counter–terrorism policy is made and what changes

should be made to that process.[29]

Counter–Terrorism Techniques

These measures fall into four primary categories: how to stop terrorism from arising, how to

eliminate existing threats, how to prevent terrorist attacks, and how to mitigate the damage

done by those attacks.[30] Many of these forms to some degree rely upon sustained

multi–national efforts thus putting diplomacy at the forefront of many of the technique

discussions (Crelinsten, 2007). Examples of such include the work of Pillar (2001a, pp. 73-

79) and Simon and Martini (2004) each of whom discuss the need for diplomacy in order to

ensure cooperation, and to coordinate actions between states as well as serving the purpose of

strengthening international norms against the use of terrorism. Katzenstein and Stern (2003)

offer a more pessimistic view on the possibility of maintaining long–term multi–national

cooperation against terrorism in their examination of the reactions of the governments of the

United States, Germany and Japan to the events of 9/11.

Countering the rise of terrorism

The issue of how to prevent the development of terrorism is inherently connected with the

literature on terrorist motivation, in particular with the issue of structurally permissive causes.

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[29] Crenshaw (2001) for example addresses various inputs into the counter–terrorism process
both inside and outside of the direct policy making circles. A number of authors have argued
for reform of the counter–terrorism process in the US government, including Badey (2006),
Downing (2005, pp. 440-441) and Biddle (2002). Specific reform suggestions are also present
in policy documents including the 9/11 Commission Report (2004) and the National Strategy
for Combating Terrorism: Rethinking the Interagency System (Donley 2005).
[30] Issues related to the prevention and mitigation categories have experienced sizeable growth
as research areas in recent years. The establishment of professional journals specific to these
areas such as the Journal of Homeland Security and Emergency Management (established in
2003) is evidence of the greater degree of attention being devoted to these issues.

Effective transnational treatment of underlying causes of terrorism, it is presumed, will limit the desire to turn to terrorism as a means of addressing otherwise unresolved grievances. The underlying presumption of this research is that conditions such as poverty, under–development, long–term political instability, socio–cultural divisions, inadequate mechanisms for expression of legitimate dissent, etc. while incapable of being eliminated can, to some degree, be alleviated with an commensurate reduction in the motivation to undertake terrorism (Graham, 2002; Mousseau, 2002; Newman, 2006; Schaefer, 2001; Sinai, 2007, pp. 45-46). Much of this research then revolves around what are the best means of addressing these underlying conditions. There is, of course, no agreement on the exact policies to be undertaken in order to affect theses changes, particularly with respect to foreign aid. Graham (2002) explores some of the intricacies of this debate concluding with a series of foreign aid "do's and don'ts. Moore and Schrank (2003) argue that current US efforts centering around economic aid to the Middle East are not only likely to fail but also to exacerbate the existing socio–political conditions they are designed to alleviate. Still others such as Krueger and Maleckov (2003) have suggested that efforts to relieve poverty could be better spent in other directions such as promotion of democratic freedoms. Cronin (2002) has argued that although transnationalism has been utilized in the facilitation of terrorism, certain aspects of it may also be exploited to counter the root conditions that give rise to terrorism. The lack of academic consensus on how best to alleviate poverty, redress under–development, resolve long standing issues such as the Israeli / Palestinian conflict, and overcome disputes over socio–cultural divisions that can lead to conflict, is mirrored in the this literature that deals with structural conditions and attendant counter–terrorist strategies. Despite this lack of consensus, most are likely to agree that "A failure to understand the linkages between these underlying conditions and terrorism may result in inadequate counterterrorist policies.

Moreover…an approach to counterterrorism that ignores this relationship may even exacerbate the underlying conditions that give rise to terrorism and in turn intensify the terrorist threat." (Newman, 2006, p. 749, see also pp. 750-751).

Elimination of Existing Terrorist Threats

This area of research is primarily concerned with how states deal with existing terrorist groups. Central to these approaches is the question of how terrorism ends. A major weakness in our understanding of how terrorism ends is the issue of individual disengagement. Little is actually known about the processes by which a terrorist abandons terrorism, this despite Crenshaw (1988) pointing out the potential application of this knowledge against terrorist organizations. The work by Horgan (2005 & 2007) is particularly instrumental in laying out what he refers to as the psychological and physical routes toward disengagement and in the provision of a research agenda for understanding these processes (2007, pp. 123-124).[31] One obvious answer to how terrorism ends is the capture or killing of the members of the terrorist organization (listed as one of Horgan's physical means of disengagement) such that it can no longer function.[32] Howard (2005) argues that this use of pre–emptive force is necessary given the potential harm that terrorist groups can cause, particularly with respect to CBRN capability. The use of force is not necessarily as straight–forward as it might seem. Schultz (2004) provides an intriguing look at nine reinforcing reasons why special operations forces were not used against al–Qaeda prior to 9/11. Military force does not have to be directed at the terrorist organization itself; it can also be directed against the resources of the group such as the targeting of training camps, state provided "safe–havens", or even state sponsors

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[31] See also Bjorgo (1988 & 2002) and Crenshaw (1988, pp. 22-26).
[32] Effectiveness of use of force techniques is however hotly contested. Brophy–Baermann and Conybeare (1994, p. 196) for example suggests that "only unexpected retaliations will be effective in causing terrorist attacks to deviate from their natural rate."

themselves. Non–military options can also be directed against terrorist resources such as the efforts to curtail terrorists through finances (Council on Foreign Relations, 2002; Passas, 2003; Pillar, 2001a, pp. 92-97). Basile (2004) provides an important look at the anti–finance efforts directed at al–Qaeda, offering a bleak assessment of their current potential for success. Less contentious than the use of force options is the targeting of terrorists through the use of criminal law. Various researchers, particularly those adhering to a definition of terrorism as a criminal act, have advocated emphasis on legal action, bringing terrorists to trial, as an appropriate counter–terrorism focus. This has numerous advantages including the already existing transnational processes and procedures for investigation and apprehension of criminals . Most of the work done in this area therefore centers on how to best make use of these processes and how to overcome the stumbling blocks that do exist[33] (Pillar, 2001a, pp. 79-92). Significant additional work in this arena centers around strictly legal issues such as the applicability of the "prisoner of war" distinction to captured terrorists, or the distinction "non–combatants" in definitions of terrorism. An important aspect of each of the above techniques it that even if they cannot eliminate existing terrorist threats they may impose significant operational constraints upon them and thus serve to mitigate their capability to inflict costs upon the state.

Prevention of Terrorist Attacks

It is highly doubtful that even under the best of circumstances counter–terrorist techniques could be effective at eliminating all terrorists, therefore states must consider the means by which they can best protect themselves, their people, and their critical infrastructure from terrorist attacks. Prevention measures can be thought of in two distinct forms. The first is

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[33] One such stumbling block are extradition issues, particularly extradition to the United States for capital crimes because of the presence of the death penalty.

operational prevention which occurs through both active and passive means. The second are security measures. Active operational prevention involves the use of intelligence to gain access to terrorist organizations prior to the carrying out of operations and the prevention of those operations, usually through arrest of the involved individuals. As these operations are informed by threat analyses coming from various intelligence, law enforcement, and security services much of the research in this area is devoted to studies of the field of intelligence. Rudner (2007) provides an excellent overview of the work in this area and its intersection with counterterrorism. Criticism of intelligence efforts, particularly the failure to predict 9/11 are also a significant portion of this research. Parker and Stern (2002), for example, examine the psychological, bureau–organizational and agenda–political factors that may have contributed to the achievement of strategic surprise by al–Qaeda on 9/11.[34] Passive means geared toward operational prevention include denial of terrorist access such as interdicting terrorist travel; and denial of terrorist capability by controlling access to material needed to conduct their operations (including the specific sub–category of CBRN capability). Research into this area , the denial of the technical resources to create CBRN devices and to prohibit the sale and purchasing of the same, is consistently mentioned with the CBRN terrorism literature as the primary means of preventing these kinds of attacks (Cordesman, 2002 & 2005). However, passive measures go far beyond CBRN prevention and include activities associated with all forms of border and transportation security.

The second set of preventative means, security measures, consists of the defense and protection of likely targets including both critical infrastructure and symbolic targets. Key elements in this literature are governmental policy statements identifying both likely targets

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[34] See also Gertz (2002).

and appropriate security measures such as The National Strategy for the Physical Protection of Critical Infrastructure and Key Assets (PCIPB, 2003). Critical evaluations in this area can run the gamut from exhaustive treatises on critical infrastructure protection strategies such as Tussing and Wheatley's (2004) edited work In Support of the Common Defense to relatively narrow assessments of target specific security measures (Coaffee, 2004; Guidry, 2007). Despite the often lofty goals attributed to them, security measures are necessarily limited in capability: it is impossible to protect all targets against all conceivable attacks. The economic costs prohibit their universal application, and defensive measures are highly subject to substitution effects (Enders & Sandler, 2004; Jackson, 2007, p. 46-47). Given these limitations even optimal levels of target protection are only likely to prevent the easy repetition of previously successful attack venues and to funnel terrorist attacks toward less critical or costly targets. These limitations have prompted some such as Bruck (2004, p. 105) in Jackson et al (2007) to suggest that the economic costs of responding to insecurity may dwarf the costs of the security threats themselves.

Less common prevention options for states are occasionally addressed as well, such as the use of conciliatory actions and bargaining (Bapat, 2006; Sederberg, 1995). While obviously of limited utility if the instrumental goal of the terrorists is the destruction of the state, state's can and do accede to certain demands of terrorist organizations. It may be more useful to view this through the lens of damage mitigation however since, as Pape (2003) notes, although states may be willing to accede to moderate demands, they are far less likely to do so to extreme demands that form the principle objectives of terrorist actions.

Damage Mitigation

Damage mitigation measures, in the form of emergency preparedness for and response to terrorist actions, are generally addressed in the same literatures common to discussions of preventative security measures. Security measures themselves, even if unable to prevent terrorist attack, may play a role in damage mitigation both in terms of direct damage limitation and in the lowering of public perception of the risk of terrorism. Jackson et al (2007, p. 43-45) conclude that most measures of damage prevention and alleviation, if properly and accurately communicated to the public, can serve an additional role in damage mitigation by serving to limit excessive behavioral change costs. These costs being primarily associated with either public demand for additional cost–ineffective security measures or inadequate preparatory measures in the face of underestimated threat levels. There exist limiting factors on this benefit however, as some research has indicated that visible security measures, when viewed in a terrorism context, may actually serve to increase individual perceptions of threat level. (Grosskopf, 2006). Aside from security measures, most forms of damage mitigation fall into the areas of emergency planning, development of first response capabilities, and damage containment measures. [35] Each of which has their own technical literatures associated to them. With the exception of measures specific to the CBRN threat (Burke, 2006), much of this literature is related to the wider disaster recovery literature (Comfort, 2002 & 2005). Also prevalent of course are various government policy statements regarding emergency response strategies and protocols (PCIPB, 2003; US Department of Homeland Security, 2006) and evaluations of those statements and policies (Tierney, 2005).

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[35] See for example Humphress (2007) on improving mobilization of emergency personnel, Petroski (2004) on infrastructure design, and Kugler's (2001) news article on lives saved during the World Trade Center attack due to improved evacuation procedures, and Jackson et al's (2007) discussion of the use of insurance and compensation as damage mitigation techniques.

Comparative Counter Terrorism Studies

In contrast to the descriptive and evaluative work on specific counter–terrorist techniques, only a limited number of studies have been done that employ a comparative strategy for evaluating broad classes of counter–terrorist strategy. Hewitt (1984) analyzed the effectiveness of six forms of counter–terrorist policy[36] across five campaigns by measuring the effect of those policies on the level of terrorist violence over time. Crelinsten and Schmid (1993) evaluated counterterrorist policies according to two measures: effectiveness and democratic acceptability, and noted several general trends including an increased reliance on military force and a negative impact on democratic norms of counter–terrorist strategies within the criminal justice framework. Charters (1994) explored this apparent negative relationship between counter–terrorist strategies and civil liberties in a cross national study of six states. He concludes by indicating the need for careful public policy that balances effectiveness and maintenance of civil liberties. Alexander (2002b) also utilizes a cross national study, in this instance with the specific objective of determining a set of optimal counter–terrorist strategies. Lansford (2003) provides a comparative analysis of the counter–terrorist policies of the Clinton and Bush presidencies. Bhoumik (2005) provides an evaluation of three models of counter–terrorism strategies (criminal justice, intelligence, and war), in the United States, Israel and India.[37] Bhoumik's conclusion is that while each state has used elements of each model, they have most consistently followed the war model and that each of these models has inherent weaknesses that may be overcome by the usage of non–repressive counter–terrorist strategies aimed at conciliation and resolution of root causes. Spencer (2006) provides a look at the difficulties involved in evaluating counter–terrorism

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[36] These being ceasefires/negotiations, improving economic conditions, making reforms, collective punishments, emergency powers, use of security forces (Hewitt, 1984, p. 35).
[37] As well as an excellent review of previously existing comparative counter–terrorism studies (Bhoumik, 2005, pp. 291-297).

strategies, particularly those that rely upon variables such as incidents of terrorism and casualties as indicators of policy success or failure. He argues instead for the development of an indicator that incorporates the societal level of fear as a more accurate gauge for policy evaluation.

The "New" Terrorism

The typology presented above necessarily imposes artificial boundaries upon the literature reviewed. While presented as separate categories each research subfield is interconnected and any given piece of research is likely to contain elements of most if not all of these subfields. A case in point is the current research emphasis on the subject of the "new terrorism." A number of prominent terrorism researchers (Crenshaw, 2000; Garrison, 2004; Hoffman, 1998; Kegley, 2003; Laqueur, 1999), building upon Rapoport's description of terrorism's four waves (2001), have come to describe the terrorism that arose in the last decade of the twentieth century[38] as "new" and research into this area clearly crosses the boundaries of definitional, motivation, behavioral, impact, and counter–terrorism studies. Even those that would challenge the precepts of the new terrorism such as Dusyvesteyn (2004 & 2007) do so across the typological divisions provided above.

At its core the study of "new" terrorism is essentially definitional. The new terrorism requires that terrorism's definition include elements of who the perpetrators are, it presumes that their motivations are different, that their specific behaviors are different, and that as a result of these differences the means to be used against them must also be different. Labeling an act or

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[38] According to Rapoport the fourth wave actually has its origins in 1979 with the confluence of several events; the Iranian revolution, the resistance to the Soviet invasion of Afghanistan, and the beginning of a new century according to the Muslim calendar.

group as new terrorism is an exercise in typological classification and as such intrinsically definitional. Dusyvesteyn (2004, p. 443) lists the following characteristics as defining of the new terrorism:

1) "the perpetrators of terrorism act transnationally and operate in loosely organized networks";

2) "they are inspired by religion and are seen as religious fanatics";

3) "they seek weapons to attack as many people as possible, notably weapons of mass destruction";

4) "their victims are not carefully selected but their targeting is indiscriminate".

Of these features the second is most clearly a motivational issue and the ascendancy of the religious over the political as the primary revolutionary motivation for modern terrorism is often touted as the key distinction of the new terrorism even while acknowledging the long history between violence and religion (Crenshaw, 2000, p. 411; Hoffman, 1998, pp. 90-92; Laqueur, 1999, p. 80-81; Rapoport, 2001, pp. 421-422). The other three characteristics are primarily within the behavioral category but not exclusively. The transnational nature of these organizations may also have linkage to motivations. Similarly motivational issues at the individual level, particularly the developmental process models and those that rely upon development of a collective identity, can be related to participation in extremist religious organizations. Much of what defines the new terrorism is clearly behavioral. Greater emphasis on mass casualty acts, higher incidences of the use of suicide operations,[39] indiscriminant targeting, the potential for expressive violence, the use of networked organizational structures, greater facility with information age technologies are all commonly noted in the literature on new terrorism. Connections to the study of terrorist impacts are also

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[39] Despite the fact the group responsible for the largest number of suicide bombings is the secular Tamil Tigers.

present. Discussion of higher lethality rates and the potential impacts of CBRN terrorist acts are present through most accounts (Hoffman 1998; Laqueur, 1999; Morgan, 2004). Similarly the difficulties in crafting effective counter–terrorist measures that are posed by the altered motivational and behavioral characteristics of the new terrorists also inhabit a significant portion of this literature (Hoffman, 1998; Jurgensmeyer, 2000 & 2003; Laqueur, 1999; Simon, 2003). Two organizations that arguably fit within the framework of the "new" terrorism are al–Qaeda and Hamas, each of which is discussed in detail in the following chapter.

Embedded within the preceding literature review are several basic assumptions regarding terrorist organizations, their motivations, and behaviors. Examples include the rationality assumption that underlies instrumental studies of terrorist behaviors and motivations: groups resort to and continue to utilize terrorist behaviors because of calculations regarding the efficacy of violence in achieving political aims and the lack of viable alternative courses of action. Other examples of these assumptions are the degree of societal isolation experienced by a terrorist organization exacerbates their level of violence; terrorist organizations have and/or develop strong negative images of their opposition; religious terrorist groups are more prone to extremes of violent behavior; terrorist organizations believe in the inevitability of their cause; long standing groups perceive themselves as "trapped" into a cycle of violence escalation; and, violent counter–terror operations exacerbate terrorist beliefs regarding the conflictual nature of their opposition. As will be seen in chapter four, these assumptions lead to specific expectations regarding certain of the operational code indices for al–Qaeda and Hamas, both with respect to each other and with respect to the norming group. To the degree that these expectations are met by the observed values for those indices, the operational code

provides either an initial test of the validity of these assumptions or additional confirmation of previous validity tests. In concert with the ability to distinguish terrorist actors from other international actors on the basis of their belief systems and the ability to link differences in terrorist behaviors and motives to differences in their belief systems, this research demonstrates the significant contributions the operational code approach can make to the field of terrorism studies.

Chapter Two: The Cases of al–Qaeda and Hamas

This chapter provides a brief look at the al–Qaeda and Hamas organizations that are the subjects of this study. Each group specific overview imparts relevant details of the organization's history, leadership, operations, and social environment. These overviews are followed by a discussion of the case selection, explaining this author's rationale for the use of al–Qaeda and Hamas in this study.

Overview of al–Qaeda

History

Al–Qaeda has its origins in the mujahideen resistance to the Soviet occupation of Afghanistan, during which bin Laden was known to have close ties with the influential Abdallah Azzam and the Maktab al–Khadamat (MAK)[40]. During the resistance bin Laden utilized his resources to fund recruiting operations, run training camps, and is known to have distinguished himself in direct action (Bergen, 2001, pp. 54-57; Burke, 2003a, pp. 74, 76; Scheuer, 2006, p. 303). About the time of the Soviet withdrawal (May 1988 – February 1989), bin Laden broke ties with Azzam and the MAK over differences in strategic direction. By 1990 bin Laden's growing disillusionment with the increasing divisions amongst the Afghani militants and the death of Azzam by assassination in 1989 had culminated in bin Laden's return home to Saudi Arabia and the decision to continue the jihadist cause outside of Afghanistan (Bergen 2006, pp. 74-88; Burke, 2003a, p. 79). His criticisms of the West and of the Saudi regime for allowing the stationing of US troops on Saudi soil after the Iraq invasion of Kuwait in August of 1990 resulted in bin Laden being placed under virtual house

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[40] A Muslim organization founded around 1980 to raise and channel funds and recruit foreign mujahideen to fight against the Soviet occupation of Afghanistan.

arrest by the Saudi government. In April of 1991 bin Laden and a core group of followers

were able to transfer their operations to Sudan at the behest of Sudan's National Islamic

Front. It was during the stay in Sudan that the organization around bin Laden began to

coalesce (Scheuer, 2006, pp. 137-140). Training camps were established and connections

were made to a number of other militant organizations around the world. During this time bin

Laden was linked to a number of anti–Western attacks such as the November 13, 1995

bombing of US facilities in Riyadh and the Khobar towers bombing on June 25, 1996.

Although the evidence is mixed on the degree to which bin Laden was involved in these

operations, it was enough to warrant US pressure on the Sudanese government. In late 1996,

under intense US pressure, the government of Sudan asked bin Laden to leave, at which point

he returned to Afghanistan, now under Taliban control (Scheuer, 2006, pp. 155-159). The

transformation from a small group of followers devoted to bin Laden to a formal organization

now began in earnest.

Al–Qaeda established a formal linkage in February 1998 with the Egyptian Islamic Jihad

organization headed by Ayman Zawahiri. In an announcement to the world bin Laden,

Zawahiri, and several other jihadist leaders declared the creation of the "World Islamic Front

for Jihad against the Jews and Crusaders." It is this organization that is most commonly

referred to as al–Qaeda.[41] In June of that year al–Qaeda conducted an attack on US embassies

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[41] There is considerable difference of opinion on when the entity known as al–Qaeda came to
exist as a modern networked group capable of conducting trans–national operations.
Bodansky, Burke, Bergen, Gunaratna, and Alexander & Swetnam all differ on precise origin
dates mostly because each has a somewhat different definition of what constitutes
"al–Qaeda". There is significant agreement that the term was in common parlance as far back
as the 1980s but that this did not reflect any specific organization but was rather used as a
general reference with regard to its Arabic meaning of the "the base" in the context of a base
of operations against the Soviet forces in Afghanistan. Because of this ambiguity the decision

in East Africa.[42] This attack was followed in October 2000 by an attack by al–Qaeda

operatives on the U.S.S. Cole off the shore of Yemen. The following year on September 11th,

al–Qaeda launched the most destructive terrorist act in US history, hijacking four airliners

and using them to destroy the World Trade Center towers, and strike the Pentagon. The

United States responded with a military invasion of Afghanistan, the overthrow of the

Taliban government and the destruction of much of the operational resources of al–Qaeda.

Both of the primary al–Qaeda leaders, bin Laden and Zawahiri, however escaped capture and

continue to remain at large. Since that time al–Qaeda, and several regional organizations

claiming affiliation with al–Qaeda, have carried out terrorist operations including the London

subway attack in July 2005. Direct linkage between most of these operation and the core

members of al–Qaeda have been limited at best prompting most analysts to conclude that

al–Qaeda exists primarily as an ideological umbrella for numerous Islamic militant groups

around the world that may have little or no connection to the formal al–Qaeda organization.

According to the US State Department (US State Department, 2004b) the Iraqi organization

of al–Zarqawi formally merged with al–Qaeda in 2004 and changed its name to *Qa'idat

al–jihad fi Bilad al–Rafidayn* (al–Qaeda in the Land of the Two Rivers or al–Qaeda in Iraq).

This would indicate a direct connection between al–Qaeda and the Zarqawi organization

exceeding that of the other numerous affiliated organizations that have carried out activities

in al–Qaeda's name. Further, more recent reports have indicated a potential resurgence of the

actual al–Qaeda organization and its capabilities for direct action.

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was made to use the February 1998 unification with Zawahiri's Egyptian Islamic Jihad as the
origination date for the form of al–Qaeda studied in this project.
[42] Attacks prior to this date have been linked to al–Qaeda. The December 1992 hotel
bombings in Aden, Yemen and the truck bomb attack on the World Trade Center by the
group headed by Ramzi Yousef are most often cited. However, the embassy bombings in
1998 are the first that can be reliably traced to al–Qaeda personnel (Burke 101, 129, 135,
157-160).

Organizational Structure

At the time of the move to the Sudan the al–Qaeda that existed was probably no larger than a couple of dozen individuals and was of very limited operational capability (Burke, 2003a, p. 80). Even upon returning to Afghanistan in 1996 it had little if any formal structure. That rapidly changed. As Burke indicates: "Bin Laden arrived back in Afghanistan with an ideology but no way of prosecuting it…Within five years, he, al–Zawahiri, Mohammed Atef and others would together be able to build an astonishingly sophisticated infrastructure for terrorist training." (Burke 2003a, 151) What bin Laden did have upon his return was a commitment toward violent struggle and a desire to carry the struggle to the West, the small group of followers, and the remnants of his contacts in the Peshwar region. At the time, being largely the only entity concerned with directly striking the West, the fledgling al–Qaeda grew quickly by siphoning off the best and most dedicated of fighters emerging from the region's training camps.(Burke, 2003a, pp. 152-153). At its outset, the structure of al–Qaeda consisted of a tight knit core–group of decision makers with bin Laden, and to a lesser extent Zawahiri, serving as primary leaders. These individuals were advised by a consultation council that "considers, discusses, and approves major policies and actions, including terrorist operations and the issuing of *fatwahs*."(Alexander & Swetnam, 2001, p. 3)[43]. Other formal structures consisted of a military committee, a business committee, a religious committee, a media committee, and a travel office. These formal structures sat in contrast to the networked cell structures that marked the operational ends of al–Qaeda. The picture presented is one of a largely centralized set of formal structures based in Afghanistan with networked ties to

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[43] This information is largely drawn from the testimony of Jamal Ahmed al–Fadl, called as a prosecution witness in USA vs Usama bin Laden, New York Southern District Court, February 2001. Although the veracity of some elements of his testimony has been called into question by Burke and others, his description of the formal structure of al–Qaeda has not been directly disputed and has been generally upheld by Gunaratna (2002).

numerous isolated operational cells around the world. It is in this incarnation that al–Qaeda conducted its most prominent attacks, the June 1998 embassy bombings and the September 11, 2001 attacks.

However, most of the statements, directly attributable to al–Qaeda sources, originate after the US invasion of Afghanistan in late 2001. It is clear that after the invasion the formal structures within al–Qaeda were destroyed. Much of the upper leadership, excepting bin Laden and Zawahiri has since been either captured or killed. Thus, the formal organs of al–Qaeda have largely disappeared in favor of a dispersed cellular networked structure of the kind that has always existed between the formal structures and the operational elements. The US State Department maintains that the organizational strength of al–Qaeda is several thousand strong but this specifically includes "extremists and associates worldwide inspired by the group's theology."(US State Department, 2005) and therefore cannot not be taken as a true indication of the current size of the group itself.

Burke argues that the phenomena known as al–Qaeda has had three forms: a core group of individuals with direct ties to bin Laden, a larger organizational entity which served largely in a supportive role for various terrorist operations, and lastly as an inspirational unifying force for extremist organizations and Islamist movements around the world with little, if any, actual institutional presence. He contends that this latter form is the only one that currently exists, that the first two probably ceased existence with the US invasion of Afghanistan in 2001 (Burke, 2003a, pp. 13-17), and that continued referral to an institutional form of al–Qaeda is faulty (Burke, 2003b).

While there can be little doubt that al–Qaeda does exist in this latter form, it is premature to dismiss other forms of the organization as irrelevant. More recent evidence indicates that while the early forms of al–Qaeda may have been disrupted, they have since reconstituted themselves in new forms. Security officials within the United States and United Kingdom have stated that al–Qaeda has regrouped and rebuilt in the Afghanistan/Pakistan border region since the fall of the Taliban. The core formal organization that was destroyed has been rebuilt along a cell structure similar to that of past incarnations of the Provisional IRA (BBC News, 2006a; BBC News, 2007a). This is not to indicate that the formal structures have been reformed but that the ability of the al–Qaeda core to conduct and/or manage operations of their own has been reconstituted (BBC 2007a; CNN 2007; Haggani 2007). Contrary then to Burke's portrayal, the threat from al–Qaeda is not merely inspirational, nor is it only limited to the operations of groups claiming affiliation with but lacking direct contact to al–Qaeda.

Goals and Beliefs

As indicated above, when bin Laden returned to Afghanistan from Sudan and began in earnest the construction of the organization known as al–Qaeda, he returned with little more than a small group of devoted followers and set of beliefs that would be central to al–Qaeda. This set of beliefs was a modern interpretation of the concepts of radical Islam first articulated in the early part of the 20th century. The core beliefs of much radical Islam has its roots in the writings of authors such as Hassan al–Banna, the founder of the Muslim Brotherhood and Ayed Abul Ala Maududi, founder of Jamaat Islami . Both strove to address the decline of the Muslim world (parceled out amongst Western colonial powers , outdistanced by Western material and technological superiority, and perceived as, if not actually, socially backward). In doing so, these authors sought answers by returning to the

core interpretations of the Islamic holy works and rededication to the pillars of Islam. In particular it was argued that Muslim society had become influenced by a secular West that fosters a separation of religion and politics that is contrary to traditional Islamic beliefs. This separation was seen as the root cause of the decline of Islamic society. It was only though a return to a more traditional Islam, one in which the union of religion and politics was re–established, that this issue could be redressed. Al–Banna and Maududi both referred to this return in terms of a religious struggle (*jihad*). However, al–Banna specifically argued against militancy, calling for "brotherly love: condemnation of hatred and fanaticism" and for "Peace: Error is committed by the misguided thinking on the legitimacy of the Holy War."(al–Banna, 1982, p. 82) This was to be a struggle to return the hearts and minds of the Islamic people to their core tasks of building a fair and just society based on the tenets of Islam. This struggle would have to engage on social, cultural, economic, and only occasionally, militant fronts. Also characteristic of al–Banna and his contemporary authors was an emphasis on an incremental approach. The changes that were necessary in Islamic society would not and could not take place over night. Patience and gradual progress would be the key elements of a *jihad* that was an internal struggle to revive Islamic society.

At the heart of much Islamic revivalism is therefore a kind of rejection of Western social structures and influences within the Muslim world. These structures were perceived as having led to two devastating world wars, the development of an ideological cold war, and gross social and economic inequities within and between states. These conditions were very far from the perfect society put forth in Islamic teachings. It would only be through a return to those teachings that the Muslim world would be able to demonstrate the "excellence of Islamic principles of collective organization, and their superiority over everything known to

man until now" (al–Banna, 1982, p. 82). The modern phenomena of Islamic radicalism differs most strongly from the revivalism of al–Banna and Maududiin in the means by which this demonstration will occur: the use of violence, the emphasis on revolutionary rather than gradual change, and the reliance upon a "vanguard" to demonstrate the way to the rest of the Islamic people.

Later revivalist writers such as Sayyid Qutb, who joined the Muslim Brotherhood in 1951 after returning from a stay in the United States, would alter al–Banna's beliefs to include "an uncompromising hatred of the West and all its works."(Bergen, 2001, p. 199). He emphasized the interpretation that those leaders whom had established non–Islamic regimes in the Muslim world were to be considered *takfir* (excommunicated or apostate, not longer Muslim), thereby providing a rationale for radical Islam's attacks on those regimes as well as justification for the killing of fellow Muslims. Qutb argued the need for a more militant version of *jihad*, one that was less about an inner struggle within the Muslim world and far more about violent action against those that had turned their backs on Islam. Qutb is sometimes credited with the concept of an offensive *jihad* that carries the fight to non–Muslims wherever and whenever possible (Eikmeier, 2007, p. 89). Abdallah Azzam and Ayman al–Zawahiri are known to have been heavily influenced by Qutb's teachings, making frequent references to his writings in their own. Drawing from the work of Gerges, Eikmeier makes the case that Qutb's teachings are directed related to the founding of al–Qaeda. "Qutb's theory of unrestricted jihad … is the intellectual basis behind the exhortations of Abdullah Azzam and Ayman al–Zawahiri and ultimately the establishment of Osama bin Laden's al–Qaeda." (Eikmeier, 2007, p. 90).

While the writings of these authors have generally kept true to the revivialist call for struggle on all fronts, they have drifted from, or outright rejected an incremental approach. Rather than taking the gradual path of molding and shaping the governments and societies of the Muslim world, Qutb, and later Abdullah Azzam, argued in favor of violent struggle, targeting both those that have presumably turned their back on the true and faith, and upon the non–believers whom they perceived as seeking to erode Muslim society. To achieve success the *ulema* would have to be shown the way by a "vanguard" dedicated to the struggle. While certainly not the first of the radical Islamic authors to argue for such a vanguard, Azzam was instrumental in furthering the notion that this group would be responsible for carrying the conflict to the infidels in defense of Islam.

This defense necessarily included the need to return secularly ruled states to governing forms enlightened by Islam as well as the removal of negative Western influences from Islamic societies. While it is the duty of all Muslims to take part in these changes there is general agreement that this cannot happen without the influence of a vanguard of dedicated, pious individuals to show the way for the greater *ulema*. The role of that vanguard received a different interpretation in the teachings of Azzam and stated beliefs of al–Qaeda. The duty of the vanguard was no longer to merely demonstrate the superiority of the Muslim society but was to defend the society against the predations of the non–Muslim world and to take the battle to them (Gerges, 2005, p. 295). The establishment of the state of Israel, numerous instances of domestic interference in the Middle East, the invasion of Afghanistan, and the pervasiveness of Western culture, all have been portrayed as evidence of a concerted effort to destroy Islam and therefore serve as justification for the need to use violence as a means of

striking back. This emphasis on militant action is epitomized by Azzam's slogan "Jihad and the rifle alone: no negotiations, no conferences and no dialogues" (Azzam, 2001).

Azzam used these events to present a vision of a Muslim world in its entirety under direct assault by the non–believers. As with al–Banna, Azzam made little of the differences between Western and Soviet actions; all, in his eyes, were part of a greater effort to bring down Islam. This brought a renewed sense of pan–Islamism to the radical Muslims and intentionally extended the battlefield globally. The concept of pan–Islam, the unification of Islamic society beyond artificial state boundaries was taken up by Azzam and those he influenced. While it has its roots in the early 20th century writings, with the perceived need to return to a united Islam[44], the modern interpretation sought to use this as a call for all Muslims, everywhere to take up the battle against the non–believers. Despite this emphasis on a united Islam, Azzam was still primarily concerned with *jihad* against the near–enemy: the fight against secular Arab regimes, and the return of historically Islamic lands from non–Muslim rule. It was not until the mid 1990s and failures against the near–enemy (particularly in Egypt) that bin Laden and Zawahiri would seek to reorient the global *jihad* against the far–enemy: the United States and its allies (Gerges, 2005, p. 14, 25).

The close ties between bin Laden and Azzam, whom has been referred to by many as the spiritual father of the Afghan Arabs,[45] were particularly influential on the development of bin

[44] This is not to say that radical Islam calls for the creation of a singular Islamic state or for Islam to become united under a single form. Instead it is a call for the recognition that the current state system is an artifact of European influence, to cease internecine fighting between the various peoples of Islam, and to stand united against the non–believers.
[45] Azzam's influence upon modern radical Islam is extensive. He was one of bin Laden's university teachers in Saudi Arabia as well as the head of the MAK. He was also a known friend of the Qutb family, Sheikh Abd el–Rahman (responsible for the 1993 truck bombing of

Laden's belief system (Bergen, 2001, pp. 50-52; Bodansky, 1999, pp. 19-20, 26; Gerges, 2005, p. 131; Kepel, 2002, p. 145; Scheuer, 2006, pp. 66, 68, 93). Bin Laden is also said to have been directly influenced by the writings of Qutb (Gerges, 2005, p. 91; Gunaratna, 2002, p. 17; Scheuer, 2006, p. 93). Bergen and others have argued that Zawahiri also has had a "profound impact… on bin Laden's thinking." (Bergen, 2001, pp. 202-04)[46] and that Zawahiri's ties to Qutb and his teachings demonstrates again the progression of thought that has led to the beliefs that inspired al–Qaeda. These connections are clear in the writings of bin Laden. The need for militant action and the shifting of the offensive *jihad* to the far–enemy, is echoed in his 1998 *fatwa* calling for the killing of Americans, indicating that it is the "individual duty for every Muslim who can do it in any country in which it is possible to do it."(World Islamic Front 1998). The belief in the need for a vanguard to spearhead the Jihad is a core element of al–Qaeda's beliefs (Burke, 2003a, 148; Gerges, 2005, p. 295). It is echoed in bin Laden's references to the 9/11 bombers, calling them a "group of vanguard Muslims, the forefront of Islam"(bin Laden, 2001b) and is also very similar to the language he used in describing the strong foundation "the base or al–Qaeda" in 1987 (Burke, 2003, p. 8). Similarly the pan–Islamic message of Islamic revivalism is demonstrated by the prevalence of references within al–Qaeda statements to the greater Muslim community (*Umma*).

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the World Trade Center) and with Ayman al–Zawahiri . According to Esposito (Unholy War, p. 7) he played a role in the founding of Hamas. He supervised the PhD thesis of Mullah Krekar who later would lead Ansar al–Islam (Kurdish terrorist organization that carried out attacks in 2003 and 2004 claiming affiliation with al–Qaeda).

[46] Gerges argues that the relationship between Zawahiri and bin Laden also extended in the opposite direction, that it was largely bin Laden's influence upon Zawahiri that shifted Zawahiri's emphasis from the near– to far– enemy. (Gerges, 2005, pp. 120-148). This point is echoed in Scheuer (2006, pp. 184-185).

Leadership

Although popularly portrayed as led solely by Osama bin Laden, al–Qaeda has had a number of different "fathers" that have contributed to its overall direction. It is believed to have been cofounded by bin Laden, Zawahiri, Muhammed Atef, Abu Ubaidah al–Banshiri, and Mamdouh Mahmud Salim (Alexander & Swetnam, 2001, pp. 6-16). These individuals along with Abdullah Ahmed Abdullah, Saif al–Adel and Anas al Liby are known to have sat on the consultation council which provided overall direction for the organization (Alexander & Swetnam, 2001, 6-16). Additionally, Atef succeeded to the head of the military council after the death of al–Banshiri in 1996, and served in that capacity until his own death in 2001. However, the influence of most of these individuals has likely been minimal since the destruction of the formal organs of al–Qaeda in 2001. Banshiri and Atef are known to be deceased and Salim has been in US custody since late 1998. According to some news reports, circulating in mid 2005, Abdullah Ahmed Abdullah, Saif al–Adel, Suleiman Abu Ghaith and other influential al–Qaeda members are suspected of residing in Iran under virtual house arrest by order of the Iranian government (MSNBC, 2005). Although most statements made public by al–Qaeda have been attributed to bin Laden, or to the organization in general, with statements by Zawahiri have becoming more common since 2005, the prominence of these other individuals in the early formation of al–Qaeda and its directions is important in that it bespeaks of a belief system that is not merely that of a single individual but of a group of like minded individuals, highly dedicated to those beliefs.

Behavior Patterns

Tactical operations carried out by al–Qaeda and affiliated groups have included bombings, hijackings, kidnappings, assassinations, and suicide attacks, however the primary mode of

operation has been the use of suicide bombings that exhibit high degrees of technical and

tactical coordination.[47] The attacks on the USS Cole, the African embassy bombings and the

9/11 attacks all were relatively sophisticated operations requiring the coordination of multiple

participating units. Each entailed substantial prior planning and the latter two entailed the use

of long–term embedded assets with direct connections to senior al–Qaeda membership.

Operational design for attacks has generally come from outside the core elements of

al–Qaeda, with the notable exception of the 9/11 operation. As Burke indicates: "when it

came to terrorist attacks, it was more often al–Qaeda that was approached with ideas or plans

for an attack than groups or individuals approached by al–Qaeda." (Burke, 2003a, p. 208).

Burke likens the operational approach of al–Qaeda to that of a university "disbursing research

grants and assisting with facilities such as libraries or with teaching that can allow the

ambitions of its pupils…to be fulfilled." (Burke, 2003a, p. 208) It is exactly the exercise of

choice of which operations to support and what resources to commit to those operations that

serves as a linkage between the belief structure of al–Qaeda and the actions attributed to it.

Evidence from terrorist activities linked to al–Qaeda in 2003 and 2004 is cited by Mishal and

Rosenthal in their classification of al–Qaeda as a "Dune" organization: distinct from the usual

network and hierarchical structural typologies (Mishal & Rosenthal, 2005, pp. 280-281).[48]

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[47] The 9/11 attacks while technically not bombings can be considered as such in that the intent
was to make use of the hijacked aircraft and their loads of jet fuel as explosive devices.
[48] The "dune" label is a reference to the ability of an organization to have a transitory
territorial presesence in much the same way that a sand dune is present in place only
temporarily: the winds shift and suddenly the dune is gone and another dune in another
location has appeared.

However, this typological distinction is largely based upon operational rather than structural differences. The key indicators for this type of organization are:

> "When terrorist actions are *carried out by both the organization itself as well as groups loosely affiliated to it; the actions are carried out* within loosely defined *intervals of time rather than in accordance to strictly defined time dictates; and,* the actions of the affiliated groups are not necessarily identical in terms of their modus operandi to the core organization's actions but *the same outcome is achieved…*" (Mishal & Rosenthal, 2005, p. 288).

This is exactly the pattern of behavior seen in al–Qaeda activities post 2001. Mishal and Rosenthal later point out that a necessary condition for a "Dune" structured organization is a "global vision" that can be communicated amongst the organizations members and affiliates (Mishal & Rosenthal, 2005, p. 290). In effect it is this vision that holds the network connections together between al–Qaeda core elements and between those elements and al–Qaeda affiliated organizations providing another linkage between organizational beliefs and actions.

A constant hallmark of al–Qaeda's behavior is its sophisticated use of the internet. Perhaps more than any other militant organization, al–Qaeda has shown the potential for use of the world wide web in support of their operations Thomas (2003) enumerates several known and hypothetical means by which al–Qaeda utilizes the internet, particularly its use of web resources to disseminate its views and statements, as a recruitment tool, and as a means of controlling and coordinating operations over vast distances. The importance of this usage has only increased in light of the destruction of the formal structures of al–Qaeda, forcing it to rely greatly upon this alternative means of continuation and communication, utilizing it as the primary means of articulating its "global vision."

Social Embeddedness

The factor referred to as social embeddedness is an expansive one that includes the various connections that an organization has to the wider society that houses it. Simply put, the greater the number of connections and the greater the depth of these connections the more embedded the organization is within that society. While the general presumption is that terrorist organizations are isolated from general social elements by their underground nature and the tenor of their activities (Crenshaw, 1990c, pp 122-123; Henderson, 2001, pp. 17-18; Hoffman, 2002, p. 65; et al), various factors can limit this isolation, such as: the lack of need to operate secretly, strong connections with a supportive government, open engagement in social welfare projects, and/or a strongly supportive popular base.

While there was a period of time in which al–Qaeda could operate more or less openly within the confines of Afghanistan, operations outside of the state still had to be conducted with the secrecy and isolation associated with terrorist organizations operating in a hostile environment.[49] In any case, this period ended abruptly with the US invasion of Afghanistan and the downfall of the Taliban. The al–Qaeda connections to the Taliban government, while significant, are however, not an indicator of a high degree of embeddedness. Although much has been made of the linkages between al–Qaeda and the Taliban, the relationship between them was strained. Despite large financial gifts to the state treasury and the promise of funding social projects these gifts did little to "overcome the fundamental differences

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[49] Take as an example the actions of the 9/11 hijackers. While presenting themselves as normal acclimated members of American society each had to maintain operational secrecy and devotion to striking at the West, thus creating a gap between their day to day interactions and their ultimate aims – a psychological if not actual societal isolation. In his discussion of the cohesiveness of the 9/11 hijackers McCauley states that "It seems that the dispersed terrorists lived without close connections to others outside the terrorist group…Although living apart [from one another], they remained connected to and anchored in only one group, their terrorist group." (McCauley, 2002, pp. 15-16)

between the worldviews of the worldly bin Laden and the parochial backwoods mullahs who led the Taliban" (Burke, 2003a, p. 165). Prior to US cruise missile retaliation for the African embassy bombings, Mullah Omar of the Taliban had reached agreement with Saudi intelligence to turn over bin Laden for trial for treason (Rempel, 1999). It is apparent that only the common cause of resisting US aggression was significant enough to overcome these "fundamental differences" and create a limited form of connection between them. However, this was short lived in light of the overthrow of the Taliban. To date there appear to be no specific linkages between the Taliban resistance and the al–Qaeda remnants operating in the Afghan/Pakistan border areas.

The connection between society and al–Qaeda is perhaps most greatly indicated by the willingness of the people of this area to shelter al–Qaeda members and provide safe havens for them. While bin Laden and Zawahiri seem immune to the rewards offered for information leading to their capture the same cannot be said for other elements of al–Qaeda leadership, indicating that while bin Laden and Zawahiri, enjoy a certain cult status amongst elements of the populous within this region, this does not imply a high degree of connectivity between the organization and the greater society. Similarly the movement of bin Laden from Afghanistan to Sudan and back to Afghanistan and the subsequent international dispersal of senior al–Qaeda leadership in wake of the US invasion suggests that the level of societal connection felt by this leadership with the greater Afghan society has waned since their days of being revered freedom fighters against the Soviet Union. The explicit non–territoriality of a "Dune" organization (Mishal & Rosenthal, 2005, pp. 282-283) would also seem to limit the degree to which al–Qaeda can be socially connected.

With regard to a more generalized popular support amongst the international Muslim

community it is important to understand that much of this support can be characterized as

supportive of the aims of al–Qaeda while not necessarily of its tactical approach.

> "although the vast majority of Muslims reject bin Laden's violent tactics,
> they support his stance against Western domination in the Middle East, a
> desire for Islam to have a stronger influence over public and private life, and
> a demand for greater respect for Islam and Muslim people"
> (Schanzer, 2007)

Certainly, to some adherents of radical Islam, al–Qaeda is held in high regard for the success

of its operations against the West, however this has not translated into generalized popular

support. The beliefs espoused by radical Islam still lie outside of mainstream Islamic beliefs

and teachings. Thus, while al–Qaeda may find a degree of embeddedness within the extremist

community, the impact of this is limited by the general separation of that community from the

greater conventional Islamic society (BBC News, 2006b). Even within the Islamic extremist

community al–Qaeda's actions have not resulted in widespread support. Gerges (2005, pp.

185-249) demonstrates convincingly that the actions of 9/11 in particular, and the more

general emphasis on the far–enemy, have exacerbated the already significant divisions within

the jihadist community.[50]

Overview of Hamas

History

Hamas grew out of the Muslim Brotherhood branch that was established in Gaza in 1967.

Ahmed Yassin headed the *Mujamma'* (established in 1973), a welfare charity organization of

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[50] It is important to note however that Gerges believes that the US invasion of Iraq helped to
radicalize mainstream Muslim public opinion and increased general anti–American
sentiments. As a consequence al–Qaeda's vision of a global *jihad* targeting the far–enemy has
gained wider credence.

the Muslim Brotherhood in Gaza. Following the Israeli invasion of Lebanon in 1982 and the accompanying weakening of the PLO, elements within *Mujamma'* began to consider the potential of providing an Islamic alternative to the PLO's secular leadership (Mishal & Sela, 2000, p. 33). The advent of the first intifada provided *Mujamma'* the opportunity to expand its influence as well as prevent a resurgence of PLO control and limit the growth of the influence of its militant rival, Islamic Jihad. In February 1988, Hamas was formed as a militant wing of the *Mujamma'*. Creation of the separate organization was hoped to shield *Mujamma'* from being directly implicated in the actions of the intifada. Its founding was therefore tied to efforts to protect the *Mujamma'* limiting the potential for reprisals against it, and allowing for the continuation of its social welfare programs (Hroub, 2000; Mishal & Sela, 2000, pp. 33-37).

Hamas was initially organized into three branches: a political wing, an intelligence wing, and its military wing which, in 1991, formally become the Izz al–Din al–Qassam Brigades[51] (MidEast Web, 2004). Hamas influence grew during the first intifadah, soon overshadowing that of its parent and eventually co–opting its social programs.

> "Whereas it had previously been focused almost exclusively on education, welfare, and community life, the Mujamma`'s core now assumed a bifocal form, combining the previous activity with organized political protest and violence against Israel, which posed a challenge to the mainstream Fatah organization. Initially intended to be an autonomous organization within the MB [Muslim Brotherhood] movement, Hamas practically turned into the hard core of the Islamic movement, with its own ideological and political stature, which soon overshadowed and in fact co–opted the MB mother movement."(Mishal & Sela, 2000, p. 37).

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[51] Named for "the first leader of armed resistance in the history of modern Palestine, who was killed by the British in 1935 in the events leading up to the Great Palestinian Rebellion of 1936-39."(Abu–Amr, 1993).

This process altered Hamas from a strictly militant organization to a bifurcated one, maintaining both its militant opposition to the Israeli occupation and its provision of economic and educational assistance to the Palestinian people. Hamas prominence within Palestinian society grew with its vocal opposition to the Oslo accords signed in 1993, marking the end of the first intifada.

The early militant actions of Hamas consisted largely of small arms attacks against Israeli military and settlers. Some small bombing actions also occurred during this period. During this period however, Hamas was careful to target its attacks on those it viewed as combatants, and strove to avoid civilian casualties. On April 16, 1993 Hamas conducted its first suicide bombing that directly targeted civilians (Mannes, 2004, p. 115). On April 6, 1994, in retaliation for the Cave of the Patriarchs massacre, it conducted its second such bombing (Katz, 2002, 103-107). Hamas continued to conduct militant actions in opposition to the ongoing peace process and the establishment of the Palestinian National Authority. In February and March of 1996 it carried out two suicide bus bombings killing 60 Israelis including civilians. The impact of these actions is largely believed to have influenced Israeli parliamentary elections, bringing Netanyahu into power (Bar–Tal & Vertzberger, 1997, pp. 695, 697; Mannes, 2004, p. 137).

Its opposition to the peace process brought Hamas into conflict with Fatah during this time. Numerous arrests of Hamas personal were conducted by the Fatah–led Palestinian Authority but both sides largely refrained from open conflict with each other (Mishal & Sela, 2000, pp. 79-80. 95-96, 100). However, it was clear by 2000 that Hamas had become a viable rival for representation of the Palestinian people. The second intifada, originating in September 2000,

further improved the position of Hamas. Israeli attacks against Palestinian Authority

infrastructure weakened Fatah influence (BBC, 2007c) and Hamas exploited this weakness

by organizing substantial relief efforts in areas abandoned by the Palestinian Authority, while

simultaneously continuing to conduct attacks using small arms, usually targeted against

military targets, and suicide bombings against civilian targets. These attacks escalated into a

campaign of suicide bombings against Israel that extended from 2002 until early 2004.

On July 23rd, 2002 an Israeli missile strike killed Salah Shehadeh, commander of the Izzadine

al–Qassam Brigades. This marked the beginning of the Israeli policy of directly targeting

Hamas leadership. Ismail Abu Shanab was killed in August 2003. Yassin, spiritual head and

leader since the days of the *Mujamma'* was targeted several times and was successfully killed

in March 2004. He was succeeded by 'Abd al–Aziz Rantissi, who was killed less than a

month later. Following these deaths Hamas refused to make its leadership hierarchy publicly

known although it is generally believed that it entered a period of tripartite leadership under

Mahmoud Zahhar, Said al–Siyam, and Ismail Haniya (BBC, 2007c; Global Security, 2007b).

On June 29, 2003 Hamas, Islamic Jihad, and Fatah declared a joint three month ceasefire. The

ceasefire was abrogated by a joint Hamas and Islamic Jihad suicide bombing on August 19.

Rantissi offered a temporary ceasefire in January of 2004 while retaining the right to retaliate

for attacks against the Palestinian people and several retaliatory attacks occurred during 2005

although the suicide bombing tactic was largely abandoned. In the Summer of 2005 Israel

began withdrawal of settlements from Gaza. In early 2007, in response to the killing of

Mahmoud Qassem of the Islamic Jihad, the ceasefire was declared no longer valid

(Palestine–info, 2007a) and on Febuary 4, 2008 Hamas conducted its first suicide attack since

August 2004. On January 25, 2006 Hamas, having reversed its position of strict opposition to Palestinian assembly elections, participated in and won a majority of seats in the Palestinian legislature. In response the United States, European Union and several other Western states cut off direct aid to the Palestinians.

A unified government between Fatah and Hamas was formed with Ismail Haniya from Hamas becoming Prime Minister. In a separately elected position Mahmoud Abbas from Fatah continued as President however this only exacerbated tensions between the two organizations. By September 2006 the rivalry between the two groups became open conflict with small scale armed clashes occurring between them. A ceasefire between the two, brokered by Egypt, in October of that year was short lived, culminating in open combat between the two factions in June of 2007. In the ensuing conflict Hamas gained control of Gaza, while all Hamas elements were expelled from the government of the Palestinian Authority which is now based in the West Bank. There appear to be some recent indications that indirect contact is being made between Hamas and Fatah "for the purpose of ending their lingering showdown and restoring national unity following the mid–June events in the Gaza Strip" (Palestine–info, 2007b).

Organizational Structure

Although the organizational structure of Hamas has changed over time currently it is composed of a political wing and military wing inside the Palestinian territories and a small external political bureau based largely in Syria. Bridging the internal and external political wings is a *Shura* Council of about 50 members.[52] It is this council which is responsible for

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[52] Mishal & Sela (2000, p.161) also give figures of 12 or 24 members of the council.

most major Hamas policies, represents Hamas to foreign governments, and is the focal point

for Hamas' international fund raising efforts. The council is currently headed by Khaled

Meshaal, considered the primary leader of the organization. The political wing inside the

territories is most likely headed by the triumverate of Ismail Haniyeh, Mahmoud al–Zahar

and Saeed Siyam. This wing coordinates political and social efforts inside the territories

(Bazzi, 2006). It provides the day to day administration and leadership that cannot be done

from outside the territories: distribution of funds and other resources to Hamas' numerous

social programs, organizing rallies, information dissemination, the conducting of electoral

efforts, etc. Funding for both the political and military wings of the organization are

interconnected. Each however retain separate command and communication structures

including separate websites with English translations for the distribution of publicly

accessible information.[53]

The leadership of the military wing, known as the Izzadine al–Qassam Brigades, answers to

the political wings which set general policy directions for the brigades. However, the extent

of actual control over brigade operations is sometimes suspect:

> In practice, Hamas's political leadership in theWest Bank, the Gaza Strip,
> and abroad is occasionally surprised by military actions against Israel about
> which it had no prior knowledge. Some of the 'inside ' leaders often claim
> that the military units were operating independently rather than on external or
> high–level political orders. Such claims are means, first, to give the
> impression that the political leadership has nothing to do with terrorist
> actions and thus should be exempt from accusations that could make
> Hamas's community infrastructure vulnerable to retaliation by Israel or the
> PA. In fact, such claims are not entirely groundless." (Mishal & Sela, 2000,
> p. 159).

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[53] These websites are: http://www.palestine–info.co.uk/en/ for Hamas in general and
http://www.alqassam.ps/english for the Qassam Brigades.

The degree of separation of the political and military wings is however, a subject of significant debate (Levitt, 2006, pp.2-3). While acknowledging the possibility of division, Hroub (2006, p. 122) contends that "in the lifetime of the organization there has been no rift visible between the two Hamas wings." The Qassam Brigades are known to employ a secure cellular structure of six or seven members to each cell to maintain operational security (Bazzi, 2006). Some reports have indicated an internal division within the Qassam Brigades called the "Cells of the Martyr the Engineer Yahya Ayyash – the New Pupils" (Greenberg, 1996; MidEast Web, 2004) although there appear to be no recent reports of such a division and no mention of such a division on the Qassam Brigades' website.

Hamas deliberately conceals the size and makeup of its membership. Because of this and the diversified nature of the organization, estimates of organization size are difficult to make.[54] In light of the 2006 electoral results supporters of Hamas clearly number in the tens of thousands, but this does not reflect direct membership in the organization. Core popularity of Hamas within the occupied territories probably runs about 30 to 40 percent of the Palestinian constituency (Hroub, 2006, pp. 79-80). Estimates of the size of the Qassam Brigades subgroup also vary considerably,[55] indicating the level of success the organization has achieved in hiding its true resources.

Goals and Beliefs

Hamas' origins in the Muslim Brotherhood reflect a grounding of Hamas' beliefs in those of influential Islamic revivalists such as al–Banna and Qutb (Abu–Amr, 1993, p. 9). Article 9 of

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[54] The US government officially lists Hamas as having an "Unknown number of official members; tens of thousands of supporters and sympathizers" (US State Department, 2005).
[55] Several sources cite the size as several dozen, the Council on Foreign Relations (2007) cites "more than one thousand" and a Reuters reports 15,000 (2007).

the Hamas Charter reflects these basic sentiments, citing the estrangement of Islam from its

central place in everyday life as the principal motivation for the formation of Hamas. (Charter

of the Islamic Resistance Movement (Hamas), 1988, p. 180). Unlike, the Azzam influenced,

al–Qaeda[56], Hamas has not abandoned the incremental, multi–front approach that was a key

focus of the early revivalist authors. Hamas has maintained an emphasis on the 'internal'

jihad through its educational (particularly religious education) and social welfare programs.

This is reflected in its Charter which, while calling for the destruction of Israel and the

establishment of an Islamic Palestinian state, also addresses such diverse issues as art, the

role of women, and the need for religious education, social welfare , and community building

(Charter of the Islamic Resistance Movement (Hamas), 1988, pp. 181-185-189; Abu–Amr,

1993, p. 12).

Hamas' stance on pan–Islam also differs greatly from that of al–Qaeda. The language used by

al–Qaeda, of a singular Islam under threat and attack from all sides: requiring all Muslims to

undertake 'external' *jihad* whenever and wherever possible, is largely absent from Hamas

statements. Also absent is the emphasis on carrying the fight to the far–enemy.[57] In their place

is an interplay between the need for Islam to stand together to liberate Palestine, and the need

to reclaim an Islamic Palestine in order to unify Islam (Abu–Amr, 1993, p. 9). This

nationalist emphasis of Hamas is a distinct difference from the Islamist interpretations that

color al–Qaeda's beliefs. Both organizations do share a vision of themselves as a 'vanguard'

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[56] Hamas spokesmen have been very clear that the ideology espoused by al–Qaeda is not that of Hamas, despite both having been influenced by Islamic revivalism (Marzook, 2007; Muslim Brotherhood, 2007)

[57] Gerges refers to organizations such as Hamas as "irredentist jihadis". Their objective is to "redeem land considered to be part of dar–al–islam from non–Muslim rule or occupation…irredentist jihadis possess no political ambition to wage jihad against either their own governments or Western nations." (Gerges, 2005, p. 81).

element in their respective struggles but to Hamas that role is more of an exemplar of proper

norms and values, particularly as a counterpoint to the secular leadership of Fatah. While

Hamas beliefs certainly include an emphasis on militant action, and the belief in

demonstrating the proper means of resisting an occupier, this is not the primary element of

their 'vanguard' duty as it is with al–Qaeda (Abu–Amr, 1993, p. 9).

In most instances the nationalism of Hamas is expressed in extremes: all of Palestine must be

returned to Muslim hands, outright rejection of recognizing the right of Israel to exist, and

refusal to enter into negotiations with Israel or accept the results of such negotiations (such as

the Oslo Accords). Hamas has been willing to entertain the notion of a temporary ceasefire

with Israel, however, such a ceasefire has always been contingent upon Israel pulling out of

the occupied territories, and that this be seen only as a temporary step toward the eventual

removal of Israel from Palestinian lands and not as a de–facto recognition of Israel (Hroub,

2006, pp. 55-57; Global Security, 2007c). Long taken as an immutable foundation of the

organization, Khaled Meshaal announced in January of 2007 a weakening of that position:

"As a Palestinian today I speak of a Palestinian and Arab demand for a state on 1967 borders.

It is true that in reality there will be an entity or state called Israel on the rest of Palestinian

land." Recognition of the state of Israel would however continue to be withheld until the

existence of such a Palestinian state also became reality (Silver, 2007).

Hamas is often attributed with the ultimate goal of achieving an Islamic Palestinian state

(Alexander, 2002a, p. 3; BBC News, 2007c). Its origins in the Muslim Brotherhood,

influence by the teachings of Qutb, and early Hamas documents calling for the creation of

such a state, support this claim although there is considerable contemporary evidence to argue

that this no longer remains a central goal of the organization (Hroub 2006, pp.19-21). It is likely more accurate to characterize the desire for an Islamic state in Palestine as just that, a desire, which necessarily is superceded by the primary nationalist goals of the organization. Hamas leadership, particularly Yassin and Zahar, spoke on several occasions regarding this issue. On each occasion they reiterated that while Hamas would prefer an Islamic Palestine, it respects the democratic will of the people to decide for themselves their system of governance (Hroub, 2000, pp. 210-212). Again this stands in marked contrast to the goals of al–Qaeda that specifically call for the replacement of secular leadership in Muslim states.

These beliefs are presumably consistent across each wing of Hamas, however there is evidence that the membership of the Qassam Brigades may be distinctive in the extremity of their viewpoints. This is particularly true with respect to the willingness to use violence and the lack of moral inhibition against violent action. In contrast to the views expressed by other Middle East terrorists of both secular and religious organizations, interviewed members of the Qassam Brigades were "overwhelmingly in favor of the use of weapons of mass destruction. One interviewed individual states that they *would not hesitate to use them*." (Post, Sprinzak, and Denny, 2003, p. 180). Post, Sprinzak, and Denny (2003, p. 181) also noted that "The lack of remorse or moral considerations was particularly striking in the military wing of Hamas…the Israelis are depicted as 'them', not as people living within the same community." As the interview pool included non–Qassam Brigade members of Hamas, the potential for a division of beliefs within Hamas should be considered.

Leadership

The founder and initial head of Hamas was Ahmed Yassin. Formerly leader of the Muslim

Brotherhood's *Mujamma'*, he oversaw the transition from that organization to Hamas and the

incorporation of *Mujamma'* activities into Hamas operations. Yassin was arrested in 1989 but

continued to be influential on Hamas policies and beliefs through his writings despite his

imprisonment. It is testament to his influence that upon his release in 1997 he immediately

resumed leadership of the organization and maintained that position of primacy until his

assassination in March 2004. He is responsible for ordering the establishment of the military

arm of Hamas (Levitt, 2006, p. 35), was known to have played a direct role in the

"coordinating and financing [of] Hamas attacks," (Levitt, 2006, pp. 35-36) and has

"expressed extremist positions and enjoyed the support of the extremist members of the

terrorist apparatus and of the Hamas leadership abroad," (Global Security, 2007b). Yassin

was responsible for systematic removal of Hamas leaders whom he considered "too

moderate" during his imprisonment (Global Security, 2007b). Other sources indicate that

Yassin was a moderating influence on Hamas, citing his willingness to cooperate with the

Palestinian Authority under Fatah, and to offer ceasefires with Israel (Gruber 2007; Lyons,

2004). Control of Hamas was briefly assumed by Abdel Aziz al–Rantissi after Yassin's death.

Also a founder of Hamas, Rantissi was an ardent spokesman of the right to militancy against

the Israeli occupation and for the use of suicide attacks on civilians. He was highly critical of

the Palestinian Authority and of the call for a ceasefire in 2003 by Fatah's Mahmoud Abbas

(BBC News, 2004).

Since 2003 the leadership of Hamas has been the subject of targeted attacks by Israeli

Defense Forces, resulting in the killing of a number of the prominent leaders within the

organization. After the killings of Yassin and Rantissi in 2004, Hamas has attempted to limit

the effectiveness of this strategy by not publicly recognizing its leadership. While exact

leadership positions are therefore somewhat obscure, several individuals are clearly

influential and hold primary responsibility for Hamas policy and administration.

As previously indicated Khaled Meshaal currently heads the external political wing of

Hamas, operating out of Damascus and serving as chair of the *Shura* council. Meshaal is the

nominal head of the organization, and is its primary international representative (Hroub,

2006, p.134), a role which has gained in importance since the 2006 Palestinian Authority

elections. Since those elections, Meshaal has repeatedly stated that Hamas has no plans to

disarm, however, in a 2006 interview with the Russian newspaper *Nezavisimaya Gazeta*, he

was quoted as saying: "If Israel recognizes our rights and pledges to withdraw from all

occupied lands, Hamas, and the Palestinian people together with it, will decide to halt armed

resistance" (Helque, 2006). This marked the first time a Hamas leader has indicated a

willingness to forgo armed resistance while the state of Israel still exists.

Within the occupied territories the leadership responsibilities are less clear. Most reports

indicate that leadership of the political wing is shared between Dr. Mahmoud Zahar, Ismail

Haniya, and Said al–Siyam. Dr. Zahar was a founding member of Hamas along with Yassin

and Rantissi and as such has wielded considerable influence over Hamas beliefs and policies.

After Yassin's arrest in 1989 he and Rantissi jointly led Hamas until they were deported[58]

along with more than 400 other activists in December 1992. Returning 18 months later, Zahar

assisted Yassin in the running of Hamas and survived several assassination attempts targeting

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[58] In actuality the activists were removed to a site on the border between Israel and Lebanon
and refused re–admittance for nearly a year and half.

them both. After the death of Yassin and Rantissi in 2004 he is widely believed to have resumed a primary leadership role alongside Haniya and al–Siyam with exact leadership divisions deliberately concealed. He briefly served as Palestinian Foreign Minister following the parliamentary elections in 2006. Zahar is said to be somewhat less pragmatic than his other two co–leaders, adamantly maintaining the right to armed resistance, the continuation of terrorist operations, and the destruction of Israel (BBC News, 2006c; Levitt, 2006, pp. 1, 31).[59]

Joining Zahar in a leadership role for the internal political wing of Hamas was Ismail Haniya. He was deported along with Zahar and Rantissi in 1992. Upon his return to Gaza, he took a position as personal assistant to Yassin under whose tutelage his influence grew significantly. The death of Yassin and Rantissi, catapulted Haniya into a position of authority where his more moderate views are in marked contrast to Dr. Zahar. Probably because of his being perceived as a more moderate voice he was selected to head the parliamentary election list for Hamas in 2006 (Hroub, 2006, p.130). Following the success of those elections he became Prime Minister of the Palestinian Authority in the short lived coalition with Fatah. Since that time he has continued to indicate a willingness to engage in international mediation of Palestinian issues but not at the expense of recognizing Israel (BBC News, 2006d).

The third leader of Hamas' political wing inside the territories is Said al–Siyam. He was elected to the Palestinian parliament along with Haniya and Zahar in 2006 and served as Interior Minister of the cabinet. Al–Siyam is a lesser known figure than either Haniya or

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[59] Hroub (2006, pp. 128-129) notes however that Zahar's initial positions were quite moderate and it was only after ascending to a leadership position and losing his son in an assassination attempt that his positions became radicalized.

Zahar although his politics are presumed to be more in line with Zahar's position of no

negotiation with Israel. Siyam created the Executive Force[60] in 2006 over the objections of

Palestinian President Abbas, which precipitated armed conflict between Fatah and Hamas.

After the expulsion of Fatah, the Executive Force was disbanded into various police

organizations within Gaza in October 2007 (Monsters and Critics, 2007).

Leadership of the Qassam Brigades was taken over by Mohammad Deif after the killing of

Salah Shehada in July 2002 by Israeli missile attack. Deif openly acknowledged his position

as head of the brigades in August 2006 ("Mohammed Deif…", 2007) ending a period in

which the Qassam Brigades refused to publicly announce the leader for fear of Israeli

targeting. He has been the subject of several Israeli attacks on his life starting in August 2001,

the latest of which occurred in July 2006. Deif's position as head of the Qassam Brigades is

echoed in his hard line position. He was quoted in 2006, after the Hamas electoral victory, as

saying "all the land conquered in 1948 is Palestine's land. Every Muslim in the world has the

right and duty to fight in order to liberate this land because it is Muslim land." and "We are a

combat movement, which will safeguard its weapons until the liberation of the entire

Palestine. There, we will continue our operations until the liberation is completed."

(Nahmias, 2006).

Behavior Patterns

According to Reuven Paz (2001) "Approximately 90 percent of its [Hamas'] work is in

social, welfare, cultural, and educational activities." Social programs are primarily concerned

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[60] The Executive Force was composed of "volunteers from Palestinian militant organizations but dominated by Hamas," (Erlanger 2006) and was the primary force used by Hamas against Fatah factions in Gaza.

with provision of medical services and education including the construction of schools, mosques, and medical clinics. Hamas has been particularly adept at responding to crisis situations, setting up relief efforts for affected Palestinians within hours of major Israeli actions. Hamas has always been active in Palestinian electoral processes, particularly at the university and civic group levels. Until 2006 it had deliberately resisted official involvement in Palestinian Authority elections (Council on Foreign Relations, 2007). Prior to that individual Hamas members had stood for election without official sanctioning from the organization with moderate amounts of success.

The public separation of militant actions and leadership of the Qassam Brigades from the political and social programs of Hamas is intended to shelter the political leadership from Israeli reprisals. This policy has been only marginally useful as Israel has demonstrated its willingness to strike at all leadership positions. Operations within the Qassam Brigades can originate from either its regional leadership or from local cells. In the latter case, operations can be planned and organized by local cells but actual execution requires approval from regional leaders (Bazzi, 2006). The primary forms of militant action include small arms attacks including limited use of light support weapons such as mines, RPGs and mortars. These kinds of operations are nearly always conducted against Israeli military targets and/or armed settlers.[61] Bombings, both suicide and non–suicide, have been the primary means of striking at civilian targets although they have been employed against military targets as well. Other tactics have included kidnappings, protests, strikes, and the driving of motor vehicles into crowds (Mannes, 2004, p. 132). Hamas also has access to Qassam rockets and has used these in several attacks since 2002. Most operations are couched in terms of a response to

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[61] Hamas specifically excluded the attacking of civilians until 1994 (Hroub, 2000, pp. 245-246).

Israeli actions and justified as legitimate resistance to a military occupation (Gruber, 2007, p. 3; Hroub, 2000, p. 249).[62] Hamas generally has not engaged in high profile, technically sophisticated attacks employing long term embedded assets, in marked contrast to the operational profile of al–Qaeda.

Hamas' social and militant activities, with the notable exception of fund raising, are strictly limited to the occupied territories (occasionally within Israel). Hamas has also refused to directly engage US targets despite American support for Israel (Hroub, 2006, pp. 107-108; US State Department, 2005, p.98). These limitations strongly reflect the core nationalist beliefs of the organization and again represent a sharp contrast to the beliefs and behavior of al–Qaeda. International representation of Hamas is conducted by the external political wing thereby avoiding the travel restrictions placed on Hamas members by Israeli authorities. Fund raising activities are conducted worldwide with primary funding coming from Middle Eastern sources through charitable contributions (Security, 2007a; Levitt, 2006, pp. 143-170; US State Department, 2005, p. 98; Global) although substantial state funding is also present (Levitt, 2006, pp. 171-228).

Social Embeddedness

In contrast to al–Qaeda, Hamas operates openly not only within the occupied territories of Gaza and the West Bank but internationally, having legally operating branches in a number of countries, and affiliated fund raising charitable organizations scattered worldwide. Hamas also benefits from the direct state support of several countries and working, if not cordial,

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[62] For instance, the suicide bombing of the Park Hotel in Netanya on March 27, 2002 was claimed to be in response to early 2002 Israeli military incursions into the Palestinian refugee camps of Jenin and Balata.

relations with many others (Hroub, 2006, pp. 93-95), a situation which has improved since winning the parliamentary elections in 2006.

However, the societal connectedness of Hamas is best indicated by their social welfare and education programs as well as the substantial public support of the population of Gaza and the West Bank. In particular, Hamas has proven itself a capable alternative to the all too often corrupt administration of Fatah. Provision of extensive social services, including the construction of infrastructure elements, that appears to be beyond the capabilities of the Fatah led Palestinian Authority, have made Hamas a near indispensable element in day to day life within the territories (Hroub, 2006, pp. 70-72). Educational and religious programs, funded and run by Hamas and the *Mujamma'* before it, have accentuated the societal connection by providing a direct conduit of Hamas' message to its constituents. These programs have provided Hamas with a level of social connectivity unparalleled for a terrorist organization. The division of Gaza and the West Bank and the internecine fighting between Fatah and Hamas may have disrupted the level of societal connection to some extent (PCPSR, 2007) but by virtue of its electoral victory and its social welfare programs Hamas is clearly well embedded in the fabric of Palestinian society.

Unlike al–Qaeda, Hamas goals, and the strategy with which those goals are pursued, resonates with the general public and not just with a marginalized, militant subpopulation. This was made dramatically clear by the victory of Hamas in the 2006 parliamentary elections but was visible prior to this via the popularity of Hamas candidates running unofficially prior to 2006, the success of Hamas in university and social organization elections, and the willingness of the populous to espouse their solidarity with Hamas in

demonstrations as well as in response to polls (Council on Foreign Relations, 2007; Hroub, 2006, pp. 79-81).

The social connections of Hamas are therefore extensive, far more so than one would generally presume of a terrorist organization. The exception to this would be the Qassam Brigades wing which maintains tight security and member secrecy, especially since the Israeli targeting of its leadership. Qassam Brigade operatives are generally masked to keep their identities secret (Smith, 2006, p. 2). In contrast to the political arm of Hamas the military arm is clearly operated as an underground organization. Thus while the greater Hamas organization is connected enough to limit the impact of societal isolation on individual beliefs it is less clear that the members of the Qassam Brigades are similarly free from such considerations.

The Cases of al–Qaeda and Hamas

This section provides justification for the case study selection of al–Qaeda and Hamas and discusses the impacts of the various similarities and differences between these organizations on the study. Given that the US State Department lists 42 organizations as Foreign Terrorist Organizations there remains the question of why Hamas and al–Qaeda were chosen. While the eventual plans of this research program are to broaden its scope to include many other of these organizations some numerical limitation was necessary in light of balancing investment in the project and its exploratory nature. Paring down the list used several criteria. The first, and admittedly subjective criteria was impact of the organization within the international community. Groups not currently engaging in terrorist operations, or engaging in operations of only limited regional impact were selected out simply in favor of the greater import of

other organizations. Organization choice was also strongly influenced by the availability of material. Ready access to English translated documents from these organizations was a necessity. Several are either severely limited in the statements they produce, or in the lack of accessible English translations. In some cases organizations have similar names or have utilized similar names in the past, potentially leading to errors in statement attribution. In order to avoid those problems these organizations were eliminated from consideration. Also, direct splinter groups and those claiming close affiliation with broader organizations (and thereby being potentially subsets of others) were excluded. Of the remaining organizations, al–Qaeda and Hamas were chosen partially because of chronologic relevance and because of a particular subset of commonalities that could serve as methodological controls and differences which could, potentially be related to disparities in their operational codes. Hizbollah, which otherwise met the above criteria was excluded on the basis of maintaining project brevity and the lack of a control for the issue of direct state sponsorship.

Several commonalities exist between al–Qaeda and Hamas that function as a control for variables which might otherwise influence the operational code differences between these organizations. While there are obvious differences between the structures of al–Qaeda and Hamas, they are both exemplars of modern networked organizations that lack a direct hierarchical structure extending from a single (or small set of) leader(s) down to individuals undertaking field operations. Both are relatively large organizations (especially in comparison to past images of terrorist organizations consisting of, at most, several dozen members). Both organizations have become active in the same time period (post–Cold War era) thus controlling for the potential influence of operating under different international environments. Although there are clearly differences in cultural background of the primary leaders of these

organizations, they are, in a very broad sense, drawn from a greater Arabic culture. This limits the extent that cultural differences may play a role in belief system differences. Third, both organizations are overtly religious in nature. Much has been made in recent years of the phenomena of religious terrorism with characteristics rightly or wrongly being associated with those organizations that at least claim to be operating in concert with the will of their religion. While exploration of how or whether those differences are expressed in the operational code is certainly potentially valuable it was deemed outside of the basic exploratory nature of this research. Selecting two overtly religious organizations that draw upon the similar religious backgrounds[63] acts as a control over the differences that may arise from the religious/secular distinction. The religious nature of both groups also makes them relatively advantaged in the operational code analysis. Due to religious restriction both rely upon consensus at their highest levels of deliberation and this reliance helps to ensure that whatever is released publicly will have a large measure of agreement at the leadership level thus reinforcing the belief in the accuracy of the operational code derived from publicly released statements.

Just as important as the commonalities are the differences between al–Qaeda and Hamas. As indicated above, while both organizations are decentralized, and non–hierarchical there are substantive organizational differences between them that are likely to impact their operational codes. As indicated in the previous chapter, the operations of al–Qaeda are generally handled

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[63] This is not to claim the religious views expressed by Hamas and al–Qaeda are identical or to minimize the differences between mainstream Sunni beliefs and those of the Salafi tradition but merely that the religious beliefs espoused by both organizations have common origins and that this acts as a limiting factor on the degree to which differences in religion should have impacted the operational codes of these groups. The fact that both draw upon the Islamic revivalist traditions espoused by al–Banna and Qutb is particularly indicative of this commonality.

through a consultation of core members as to the choice of whether or not to support a particular operation and if so how and to what degree. The operational designs are often funneled toward this core from various affiliated and networked elements within the greater al–Qaeda structure. It currently lacks standing bodies specifically designated for particular operational tasks. Its pre–2002 reliance upon specific standing bodies specifically designated for particular operational tasks was largely limited to administrative divisions (training, security, research and development etc.) The structure of Hamas is very different in that there are clearly structural elements that exist for specific operational tasks and many of these elements do exist as formal, known structures. Elements responsible for welfare and social services and in particular the construction and operation of schools and hospitals in the occupied territories comprise a large portion of the organization and violent actions are specifically ascribed to the Qassam Military Brigades. Al–Qaeda clearly lacks these kinds of structural and operational divisions and has shown little, if any, interest in the conducting of welfare and social services. This provides an *a priori* indicator that the operational code of al–Qaeda is likely to be more focused and less diverse in its tactical and strategic options than Hamas; in particular there is an expectation that significant differences will be displayed between the operational codes of various subgroups within Hamas.

Similarly, al–Qaeda and Hamas differ in their designated goals and in their ties to a nationalist cause. The origins of Hamas are intertwined with the Palestinian struggle and in particular the Palestinian Intifada. Hamas has continued to insist on the view put forth in their charter that "There is no solution to the Palestinian Question except through Jihad." and their primary objective is clearly the end of the Israeli occupation of Palestinian territory. Hamas has undertaken political leadership duties for the Palestinians, participating in parliamentary

and other elections and winning parliamentary control in the January 2006 elections. These factors tie Hamas directly to the Palestinian nationalist cause and separates them from the non–nationalist al–Qaeda. Although al–Qaeda had its beginnings in the Afghani nationalist conflict against the Soviet Union, today the organization's ties to a nationalist agenda are minimal. Al–Qaeda's goals clearly align it with a greater unified Muslim world not tied to a specific nationalist cause.

This distinction between al–Qaeda and Hamas is not a trivial one. The nationalist aims of Hamas provide it with both a specific target: the state of Israel, and a constituency: the Palestinians. For al–Qaeda both target and constituency are less focused. Al–Qaeda has made no attempt to speak for a particular constituency or directly enter a political area as a representative of the same. It obviously targets individuals for recruitment and aligns itself with a greater Islamic cause but these factors do not provide it with the constituent base which it must be cautious not to alienate. Further, while al–Qaeda has generally indicated support for the Palestinian cause and a vehemently anti–Israeli (in most instances anti–Jewish) position this is clearly not the primary thrust of their strategic goals. Removal of Israel is part of the goal of defeating the "Jewish–American crusader conspiracy" but is not the preeminent goal of the organization as it is with Hamas. This is accentuated by the presence of the PLO as a rival representative for Hamas. The cost to Hamas of having its words or deeds alienate some portion of its constituency are greater because an alternative representative for that constituency readily exists. No such rival exists to serve that same limiting purpose for al–Qaeda. This leads directly to the presumption that while both al–Qaeda and Hamas will exhibit characteristics of their operational codes that mark them as

terrorist the values for al–Qaeda will be more extreme, indicative of this lack of limiting factor.

These factors probably also feed into the behavioral differences apparent between Hamas and al–Qaeda. It is true that both organizations have operational similarities. Both Hamas and al–Qaeda carry out suicide operations (sometimes referenced as martyrdom operations), both have demonstrated a willingness to use bombs or similar explosive devices, and both have demonstrated a willingness to strike at non–combatant targets. Beyond these surface generalities though are specific operational differences. Hamas, has, in the main, shied away from singular spectacular attacks preferring smaller scale operations combining multiple tactical operations and continuing over a period of time. These operations tend to be technically uncomplicated, not necessarily requiring a great deal of coordination of effort. In comparison al–Qaeda specializes in spectacular, singular operations, often requiring a great deal of technical knowledge, specialized skill sets and high levels of operational coordination. Al–Qaeda actions have tended to rely upon suicide operations almost exclusively while these kinds of operations are only part of the Hamas arsenal. Targeting priorities also differ. While both have demonstrated the willingness to strike non–combatants, a significant percentage of Hamas actions are specifically targeted at combatants only or primarily. Hamas has also undertaken several unilateral (albeit conditional) cease–fire periods. A plausible claim can therefore be made that the violent actions of Hamas are limited in scope of their target set. The same cannot be said for al–Qaeda which instead has made use of elaborate justifications for considering there to be no difference between the combatants and non–combatants targeted.

In terms of operational tools al–Qaeda has largely focused on explosives, while Hamas has made extensive use of more conventional weaponry in its operations although this may simply be a reflection of the al–Qaeda desire for the more spectacular forms of operation. In terms of operational oversight the organizations are also quite different. Operations conducted under the banner of al–Qaeda tend to be largely autonomous operations with little or no direct oversight. The general operational procedure is to bring a general plan to the core membership which okays the project and provides funding and operational assistance. The specific details of the operations are generally absent from the attention of the core membership. In the case of Hamas, operations, particularly those carried out by the Qassam Military Brigades are generally ordered by elements of the political wing and said order is percolated through the networked structure. While not strictly hierarchical there is clearly a top down operational initiation in Hamas that is largely absent in al–Qaeda. These differences in the violent operations of these two organizations are not however the primary operational difference. The most fundamental operational difference between these two organizations however lies in the variety of actions undertaken. Hamas is responsible for numerous and extensive social welfare programs on behalf of the Palestinians. Infrastructure building and maintenance, building construction, and supply distribution programs have all been extensively carried out by Hamas within the occupied territories. Al–Qaeda has made little or no comparable effort to undertake social welfare programs on a par with those undertaken by Hamas.

The operational differences between Hamas and al–Qaeda lend themselves to the supposition that al–Qaeda may be strategically predisposed toward violent action while Hamas demonstrates the use of violence as a tactical expediency. The question is whether or not the

belief systems indicate this same disposition, if so then a case can be made that Hamas is engaging in terrorist acts as the result of instrumental calculations while al–Qaeda is evidencing tendencies toward expressive motivations and behaviors. The willingness to make use of suicide operations should manifest itself as strongly conflictual instrumental beliefs across both organizations since, absent belief in the necessity for and effectiveness of these kinds of operations, it would be manifestly difficult to overcome instinctual survival tendencies. The near exclusive reliance upon these kinds of operations by al–Qaeda is further evidence in favor of more extreme values. However, if beliefs as to the efficacy of violent action are just as strong within Hamas then some other justification for their willingness to limit operational scope should be evident within the operational code. This justification may be the result of a shift away from high profile operations due to the risks imposed by the effectiveness of Israeli security measures, thus indicating an instrumental tactical choice rather than an expressive motivation on the part of Hamas. An additional plausible explanation stems from the Hamas responsiveness to their constituency and the risks associated with alienating that constituency. Thus in the absence of evidence within the instrumental indices for this self limitation one would expect a lower level of risk acceptance on the part of Hamas. It is entirely plausible however that a lessened instrumental emphasis on conflict and conflictual action, as well as less risk acceptance stemming from constituency responsiveness, all play a role in the operational differences between Hamas and al–Qaeda. The command and control differences between Hamas and al–Qaeda are also likely to manifest as differences in their operational codes. The greater direct control exercised by Hamas leadership can be seen as a desire to maintain a higher level of operational control; a manifestation of lower risk acceptance than that of al–Qaeda. Alternative reasoning says that the greater degree of control makes it more likely the leadership will be held accountable for

the operations thus increasing the risk to the authors of the speech acts while in the case of al–Qaeda the distance between leadership and operative is increased thus displaying risk adverse behavior. Although plausible this is not compelling on two counts. The first is that the segregation of violent operations to the Qassam Brigades provides a similar measure of operational distance for Hamas leadership and secondly, the acceptance of responsibility for attacks as expressed by al–Qaeda leadership in their speech acts argues against an inherent attempt to distance the leadership from responsibility. However, it should be pointed out that taking operational responsibility is largely indirect in al–Qaeda speech acts, as the organization is rarely directly self referenced.

Chapter Three:
Applying the Operational Code Approach to the Study of Terrorism

The study of political beliefs is but one aspect of a much larger body of research that measures psychological characteristics and their impacts upon foreign policy behaviors.[64] The operational code approach is however, a well developed and distinct area of this larger body and one that is particularly suited for the study of the terrorist organization. As seen in chapter one, beliefs feature prominently in most aspects of the research on terrorism. Motivational beliefs are a key element of both the "who" and "why" components of many definitions of terrorism. Beliefs appear in structural, group–level, and individual level explanations of terrorist motivation. According to most, beliefs are a central feature of terrorist decision–making and therefore to understanding their behaviors. To the degree that beliefs feature prominently in the determination of terrorist behaviors, they certainly influence the impacts of terrorism. Understanding the beliefs of terrorist organizations is also therefore a crucial element in informing counter–terrorism efforts. Consequently it is a central tenet of this study that the employment of techniques for the evaluating and comparing the belief systems of terrorist actors can contribute substantially, across a broad range of topics, within the field of terrorism studies.

The operational code approach is one such technique that is advantaged both methodologically and theoretically for the study of terrorist belief systems. This approach derives specifically political belief measures directly from the under–utilized resource of the terrorists own words and writings. This avoids the potential circularity of deriving beliefs

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[64] See, for example, individual leader characteristics (Hermann, 1977 & 1980), leader image theory (Blanton 1996), images as schemata (Herrmann, Voss, Schooler & Ciarrochi 1997), leadership styles (George 1988; Peterson, 1997; Kaarbo, 1997; Kaarbo & Hermann, 1998).

from behaviors and then using those same beliefs to interpret behaviors. The fact that this is

an at–a–distance measure is also advantageous when dealing with terrorist subjects in which

there may be difficulty in obtaining access to primary sources and/or significant dangers to

the research in the quest for such access. Additionally, the use of the automated VICS coding

process for derivation of the operational code indices results in largely reproducible and

statistically comparable quantitative data to which a variety of statistical tests can be applied.

While other techniques share some of these advantages, particularly Leadership Trait

Analysis, [65] with which it has been employed alongside (Lazarevska, Sholl, & Young, 2006)

it is this author's belief that the operational code approach is unique in its particular

applicability to the study of terrorist actors at the group level.

Leadership Trait Analysis includes measures that are not easily scalable to the group level. In

particular, LTA's concern for leadership style has no easy analog at this level. While this may

be an important variable for the determination of the circumstances in which group held

beliefs are more or less likely to influence a specific decision maker, this project is more

concerned with the impacts of the communal held beliefs upon the organization's behavior.

Further, LTA's reliance on implicit motives in the form of the need for affiliation and/or

power is necessarily limited in its explanatory capability. As Smith (2008) indicated, the

implicit need for power measured through motive imagery is unable to distinguish between

those seeking political change and those willing to use political violence to achieve that

change. While the need for power is present in both, only an examination of beliefs that

directly address the perceived efficacy of the use of violence for political change is capable of

distinguishing the terrorist from the merely political active. The operational code approach

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[65] See Hermann, 2003 for an overview.

addresses both of these concerns. Its indices measure traits which can be interpreted at the group level and they provide a more detailed analysis of motivations beyond implicit needs for affiliation and power.

Operational Code Analysis Literature Review

Operational code analysis is an approach to the study of political behavior that focuses on a set of political beliefs embedded within the personality of a leader (most often) or (as in this study) arising from the shared identity of a collective. It is an at–a–distance measure, relying upon content analyses techniques in order to determine particular psychological characteristics which impact the subject's decision–making processes, and thereby their behaviors. The concept of the operational code has its origin with Nathan Leites' work on the Soviet Politburo. As originally formulated (Leites, 1951 & 1953), the operational code concept was intended as a measurement of the psychological impacts upon foreign policy decision–making of culture, ideology, and personality type. Leites goal was to "study the spirit of a ruling group…[through]…the analysis of [one aspect] of…its doctrine…what I call the operational code, that is, the conceptions of political 'strategy'" (1953, p. 15 as cited in Walker, 1990, p. 404). His work relied upon analysis of the sets of *rules of conduct* and *norms of behavior* that were shared among the Soviet ruling elite. These rules and norms were "internalized by the individual who thereby acquires a new and different character structure…the individual who succeeds in internalizing this preferred character structure thereby accomplishes an identity transformation." (George, 1969, p. 194, cited in Walker, 1990, p. 404). This conception of the operational code therefore included both cognitive and affective components (in the form of motivations) of the belief structure.

It was Alexander George (1969) that explicitly separated the strictly cognitive processes from the affective motivational issues that were inherent in Leites' elements of Bolshevik "character" and "identity transformation." George categorized the results of Leites work into answers to a series of questions regarding philosophical and instrumental beliefs that related to the perceived state of the world, the role of the individual within that world, and attitudes toward the efficacy of various instrumental means. The philosophical beliefs referred to the assumptions and premises about the fundamental nature of the political universe while the instrumental beliefs related ends to means as a set of premises about the optimal behavioral choices to achieve political objectives.

Philosophical Questions

1. What is the "essential" nature of political life? Is the political universe essentially one of harmony or conflict? What is the fundamental character of one's political opponents?

2. What are the prospects for the eventual realization of one's fundamental political values and aspirations? Can one be optimistic, or must one be pessimistic on this score and in what respects the one and/or the other?

3. Is the political future predictable? In what sense and to what extent?

4. How much "control" or "mastery" can one have over historical development? What is one's role in "moving" and "shaping" history in the desired direction?

5. What is the role of "chance" in human affairs and in historical development?

Instrumental Questions

1. What is the best approach for selecting goals or objectives for political action?

2. How are the goals of action pursued most effectively?

3. How are the risks of political actions calculated, controlled, and accepted?

4. What is the best "timing" of action to advance one's interests?

5. What is the utility and role of different means for advancing one's interests?

The specific answers to these questions George presumed would act as constraints upon an actor's rational decision making processes, thus creating a bounded rationality that was particularly important in decision–making under conditions of uncertainty and threat.

Holsti took up George's perceptions of the operational code as a purely cognitive construct, governed by cognitive consistency theory, arguing that, "beliefs tend to reinforce one another to form a coherent belief system…under specified conditions beliefs constrain the range of alternative choice and thereby influence the final decision" (Holsti, 1977; Walker, 1989, p. 20; 1990, p. 409). This coherency implied that the beliefs making up the operational code followed in a hierarchical order from the pair of master beliefs corresponding to the philosophical question of the essential nature of the political universe and the instrumental question of the best approach for operating within that universe. Holsti also theorized that not only did the master philosophical belief influence the other philosophical beliefs but that it also influenced the set of instrumental beliefs thus making the belief system coherent both within the philosophical and instrumental beliefs but also across them. Based on this, he proposed a typology of six internally coherent operational code determined types of decision–makers. By so conceptualizing the operational code, it was necessarily implied that it would be internally consistent, would persist over time, and would be independent of issue area. Subsequent analyses of the operational code studies done since the publishing of

George's work in 1969 revealed however, that operational code consistency was only upheld irregularly.[66] Leader operational codes were often hybrid versions of Holsti's six types and this pointed to a conceptualization of the belief system as something more than just a cognitive construct.

Realizing that the inconsistencies were compatible with motivational psychology theories centering around "personal needs for power, affiliation, and achievement" (Walker, 1983; Walker, 1990, 412), Walker shifted the operational code model back toward its pre–George roots with the explicit inclusion of affect–laden motivational components. In this new model, cognition and motivation assumed equal stature as "relatively autonomous sources of behavior that can activate beliefs prior to decision" (Walker, 1995, p. 702). According to this conceptualization the philosophical beliefs represent the subject's "diagnostic propensities" regarding situational reality. The instrumental beliefs represent both the subject's perception of their role within the subjective reality, and their "shift propensities among different goals and courses of action" available to the subject (Walker & Schafer, 2001, p. 22). Walker (1995) further re–conceptualized the operational code as a series of self–attributions reflecting alternate "states of mind" of the leader. Walker (1995, p. 703) noted that multiple of these "states of mind" could well be present for a decision–maker and the differing states could be activated via either cognitive or motivational stimuli in response to the decision–making environment and issue area (Walker, 1995; Walker, Schafer & Young, 1998 & 1999; Walker & Schafer, 2000b, p. 5 & 2007, p. 754). This perspective allowed for internal inconsistency, shifts in beliefs over time (learning), the application of differing belief structures to distinct issue areas, and the presumption of a baseline belief structure (what

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[66] Later studies tended to reconfirm these findings as well as operational code variance over time and for different issue areas.

Walker refers to as a "default" state of mind) that represents a leader's proclivities absent some form of priming stimulus.

In 1998 the operational code analysis construct became systematized and reproducible via the construction of a set of numerical indices that directly related to the philosophical and instrumental questions of George (Walker, Schafer & Young, 1998). Each belief question corresponds to its own numerical index which is obtained from the coding of speech acts using the Verbs in Context System (VICS) coding scheme.[67] The result of which is a set of quantitative indicators that allowed for "direct, meaningful comparisons across our subjects and conduct statistical analyses that allow for probabilistic generalizations" (Schafer & Walker, 2006b, p. 27). The VICS scheme proved itself amenable to generation via computerized content analysis thus marking considerable improvement over the potentially less reliable qualitative operational code measures that had been in use prior to that time. Utilization of the VICS scheme for the generation of comparable operational codes has been substantial and has covered a wide range of subjects and issue areas since that time.

The chronological stability of an individual's operational code has been the subject of several studies with general findings that leaders have varied levels of responsiveness to their political environment over time (Crichlow, 1998, p. 683) and that instrumental indices have tended to remain relatively stable while philosophical indices experience greater volatility (Schafer & Gassler, 2000, pp. 15-16, Walker & Schafer, 2000b, p. 4). Variance in operational code has also been observed over issue area such as in Walker, Schafer, and Young's (1988) examination of the operational code of Jimmy Carter across specific foreign policy domains,

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[67] The rationale behind each index and process behind this coding scheme is discussed later in this chapter.

their (Schafer, Young & Walker, 2002) evaluation of the operational codes of the immediate

post Cold War presidents George H. W. Bush and Bill Clinton across domestic and foreign

policy domains, and across the domains of foreign policy relations with democracies and

non–democracies of Bill Clinton and Tony Blair (Walker & Schafer, 2000b). Noting

alterations in the operational code of leaders and the relationship of those changes to political

events has led to additional studies on experiential learning behaviors[68] as evidenced by

operational code changes. Differing forms of instrumental (simple) and philosophical

(diagnostic) learning were highlighted by Walker, Schafer and Marfleet (2001) in their

examination of the retention of the appeasement strategy by Chamberlain and Halifax. Malici

and Malici (2005) also examined learning behaviors by studying the operational codes of

Fidel Castro and Kim Il Sung to test "status quo" and "revisionist" models of their behavior

after the Cold War. Observable behavioral differences of these two actors over the pre– and

post– Cold War periods, in the absence of significant belief system changes, indicated only

the presence of non–experiential learning (structural adaptation and/or social learning). The

end of the Cold War also proved a fruitful test ground for Walker, Schafer, and Young's

(1999) evaluation of the operational codes of George H. W. Bush and Bill Clinton.[69] They

concluded that when perceptions of vulnerability are low, as they were in the post–Cold War,

but pre–9/11, environmental role constraints are also likely to be low, allowing for elite

response largely "consistent with autonomous beliefs" (1999, p. 623). Other studies of the

conditions for belief system saliency followed. Schafer (2004) utilized indicators of

groupthink to indicate periods in which the personality traits of US presidents had increased

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[68] Levy (1994) described experiential learning as policy change resulting from belief change, contrasting it to structural adaptation (policy change resulting from contextual change) and social learning (policy change resulting as a reaction to behavioral change of another actor (Walker & Schafer, 2006a, pp. 16-17).

[69] Later expanded upon in Schafer, Young, and Walker, 2002 cited previously.

effects upon decision–making, and Robison (2005) examined conditions for presidential autonomy in decision–making by relating the operational code constructs of US presidents since Reagan and event data over that same period.

The saliency issue of when beliefs matter to the decision–making process (and by extension, behavior) is related to the larger concern of the actual linkages between beliefs and behaviors, a longstanding concern[70] that in recent years has been explored in some detail. Walker and Schafer (2006a) specifically addressed the "beliefs as causal mechanisms" question by exploring the use of belief systems to generate behavioral preference orderings which could then inform game theoretic models. The result of which is the demonstration of instrumental linking of beliefs and behaviors. These interactions are modeled through the use of sequential games based upon Brams' (1994) Theory of Moves (TOM). Preference orderings for the strategic outcomes of settlement, domination, deadlock, and submission are used to inform the values attached to sequential moves (or subjectively anticipated moves) between conflict and cooperation tactics. These preference orderings are obtained from the master indices of the operational codes of the subject through the use of a deductive theory of preferences (TIP) (Marfleet & Walker, 2006, pp. 56-57; Walker, Schafer, & Young, 2003, pp. 232-234). The preference orderings occur in six forms, giving rise to twelve possible subjective games based on the interactions of the "self" and perceived "other" preference orderings. The sequential nature of TOM makes it possible to identify game solutions (non–Nash equilibrium) that are dependent upon initial game state. Specification of initial conditions, and knowledge of actor operational codes can therefore provide a mapping of the instrumental decisions, based upon

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[70] Cottam (1986) and Sjoblom (1982) leveled criticism at the operational code approach, accusing its practitioners of making only cursory attempt at explaining the connection between behavior and the beliefs measured by operational code.

beliefs, that lead to behaviors.[71] However, behaviors may not always match expected beliefs

because of structural adaptation, social learning, or experiential learning. In the last instance

the resulting altered beliefs can result in a form of feedback loop in which the belief changes

of actor A result in altered behaviors which, in turn, result in altered behaviors of actor B,

which, again can result in further altered beliefs of actor A. This kind of learning can still be

modeled by the movement between the subjective games as preference orderings change.

Much of the recent work within the operation code approach makes use of sequential games

including Crichlow (2006), Feng (2006a), Malici (2005 & 2006), Marfleet and Miller (2005),

Marfleet and Walker (2006), and Walker and Schafer (2004 & 2007). Crichlow modeled the

interactions between Thatcher and her cabinet over three foreign policy domains revealing

important points regarding the potential for consensus amongst those with strongly divergent

operational codes. Feng[72] (2006a) utilized sequential game theory to explore the potential for

conflict between Taiwan and China. Malici (2005) explored French and British attitudes

toward operations Enduring Freedom and Iraqi Freedom using sequential game theory to

demonstrate the different behavioral choices made by France and Britain regarding

involvement in Afghanistan and Iraq. In his search for learning effects between Reagan and

Gorbachev, Malici (2006) modeled the subjective games of Reagan over three distinct Cold

War periods and was able to demonstrate experiential learning. Marfleet and Miller (2005)

utilized sequential game theory to examine the strategic interactions between George Bush

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[71] See Marfleet & Walker (2006, pp. 53-62) and Walker & Schafer (2006a, pp. 12-17) for
more detailed explanations of the TOM and TIP interaction as well as specification of the
preference ordering forms and solutions to the twelve subjective games.
[72] Feng's other work in the operational code area include a study of the operational code of
Mao Zedong to see whether it reflected an offensive or defensive strategic culture (Feng,
2005), and a study of the decision making of Mao Zedong, Zhou Enlai, and Deng Xiaoping
during the Sino–Indian war (Feng, 2006b).

and Jacques Chirac over US efforts to gain UN authorization for the use of force against Iraq. Their modeling was able to demonstrate that steering effects of the Chirac and Bush belief systems were contributory to an undesirable outcome for each. Marfleet and Walker (2006) extended the sequential game theory into agent based modeling to derive results indicating that the degree of congruence between perceived beliefs and actual beliefs of actors plays an important role in the achievement of desired outcomes. Walker and Schafer (2004) utilized sequential games to evaluate power distribution, operational code, and signaling models of foreign policy strategy to determine best fit to actual events. This process linked the operational code approach into the debate between agent–oriented and structural–oriented research programs in international relations, a theme made explicit when Walker and Schafer argued it was worthwhile for these competing programs to "consider collaborative attempts and recognize that 'theory complexes' of macro and micro causal mechanism both complement and qualify one another." (Walker & Schafer, 2006b, p. 246). This theme was continued in Walker and Schafer's (2007) exploration of the operational codes of Teddy Roosevelt and Woodrow Wilson that indicated a significant degree of underspecification for structural theories and thereby advocated for the inclusion of agent–oriented models of beliefs in order to achieve optimal fit with observed events.

Application of the Operational Code Approach[73]

With few exceptions, the operational code approach has been applied to the generation and use of the belief systems of individuals. The original Leites examination of the Politburo

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[73] The only other known usage of the operational code approach to the subject of terrorism is Lazarevska, Sholl, and Young (2006) who apply a combination of Leadership Trait Analysis and Operational Code Analysis to examine beliefs and personality traits of known terrorist leaders in an effort to determine if these characteristics can be employed to distinguish between terrorist and non–terrorist subjects.

(1951 & 1953) and the coding of two sets of Johnson advisors during the Vietnam war

(Walker & Schafer, 2000a) being the principle exceptions to this rule.[74] In the Walker and

Schafer work they contended that although "individuals have operational codes, so do states

and other collectives" and indeed there would seem to be little *a priori* reason to presume that

the operational code construct as it is currently conceived is not generalizable to the group

level. Contemporary conceptualization as a psychological construct, integrating both

motivational and cognitive aspects in the creation of a *belief system*, does not directly rule out

its applicability at the group level. Groups are certainly capable of exhibiting cognitive and

motivational traits quite different from those of their component members. The greater the

degree to which the individual identities are submerged within that of the group, the greater

the probability that the group cognitive and motivational processes will dominate those of the

individual, particularly when one's membership within the group is highly salient to the

situational context. But what does it mean to speak of a *belief system* for a group?

Schafer and Walker's (2006b) definition relies upon the system of informational linkages

within the brain's neural networks to provide the foundation for their understanding of an

individual's belief system. However, Walker has also recognized the potential for a

sociological conceptualization of operational code beliefs that views them as not as

"personality traits but role traits, which are acquired through socialization either into an

organization or an elite group and are widely shared among members of the unit" (1983, pp.

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[74] In the latter the operational codes of the advisors were used largely to determine what, if any impacts, they had upon Johnson and not as a separate unit of investigation although the two groups were compared to each other finding no significant differences between the ideological "hawks" and "doves." Robison (2006, pp. 117-118) also does an advisor group comparison during the immediately pre– and post– 9/11 periods, finding significant differences between the "hawks" and "doves" on every major index.

193-194 and footnote 15).[75] Clearly there is no shared neural network between members of an organization however to speak of an organization's belief system is to say that individuals within that organization share similar informational linkages. Then, to the degree with which a given environmental stimulus activates similar cognitive, motivational, and emotional responses within the members of the group one can speak of a group's belief system. The operational code for a terrorist organization can therefore be conceptualized as having three foundations. The first, in keeping with traditional lines of operational code research, is the personality traits of the individual decision–making leaders of the organization. The second is the role traits of subordinate decision makers within the organization. The third is the personality traits associated with a communicated, communal identity, activated because of the common role trait of "terrorist decision–maker." Differences between these three foundations are likely to be mitigated by the pressures against dissent, the need to maintain the collective identity, and the need to communicate the belief system to both "self" (the other members of the organization) and "other" (the greater political universe, including but not limited to, the opposition). Conceptualization in this manner allows for construction of an operational code indicative of the shared and/or prevailing beliefs of the organization. This can then be utilized to compare the group's operational code to that of other actors within the international system as well as between sub–elements of the organization, including, potentially, individual leaders.

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[75] In this instance Walker was specifically referring to those "less strategically–located participants in the decision–making process" indicating that they would "rarely escape the constraints upon their behavior imposed by the role requirements of their official positions." The conceptualization difference here is the conceit that terrorist members are largely unable to escape from the constraints imposed by the collective identity of the group when either articulating the positions of the organization or when carrying out actions on behalf of the group.

Why Emphasize Belief Systems

This primary emphasis on the belief system directly responds to crucial need within the

terrorism field. Bruce Hoffman in his foreward to *Research on Terrorism: Trends,*

Achievements and Failures wrote:

> "One key theme which runs through the book is the need for a better
> understanding of the motivations, thought processes, mindsets and historical
> consciousness of terrorists. This, the Editor and many of the volume's
> contributors argue, is essential if the field is to grow in new and beneficial
> directions, retain its relevance, and provide incisive and insightful analysis of
> what has become one of the most compelling security issues of our time."
> (Silke, 2004, p. xviii)

Beliefs of the organization play a role in definitional motivational and behavioral research

and therefore can also influence both impacts and counter–terrorist strategies. Central to the

definitional issues within terrorism studies are questions of the ability to distinguish terrorist

from non–terrorist actors and as Crenshaw (1990b, p. 252) indicates "Most important is the

question of whether the beliefs of the users of terrorism differ in any appreciable way from

the beliefs of political actors who do not use terrorism." If they do not, then the searches for

definitional clarity that rely upon perpetrator characteristics and motivations are particularly

disadvantaged. If beliefs do differ, then not only may the operational code approach provide a

means of objectively defining how they differ but also provide a means of typologically

classifying terrorist organizations based upon the ways in which their beliefs differ both

between them and non–terrorist actors but also between the terrorist organizations

themselves.

The study of belief systems is also integral to motivational research on terrorism. Post, Ruby,

and Shaw (2002a & 2002b), in their model of risk factors for the turn to terrorism cite beliefs

as a key element in motivation. They identify beliefs as particularly important to the

"religious fundamentalist" category of terrorist groups under which both Hamas and al–Qaeda would fall. Political beliefs are particularly critical to instrumental studies of terrorist motivation as it is the belief with regard to the efficacy of violence to achieve political objectives that underlies the rationality of the adoption of terrorism (Fleming, 1980; Gurr, 1988; Garrison, 2004). Operational code analysis may also be able to inform typologic motivational studies, being able to document the belief system differences between groups of differing motivational types. Further, it stands to reason that if specific beliefs heighten the potential for a group to become terrorist then these same beliefs will continue to be present in terrorist groups and are likely to impact their behaviors.

Importance of beliefs to terrorist behaviors

The linkage between beliefs and actions is central to operational code analysis. "It is a theoretical assumption of operational code analysis that a leader's public behavior is constrained by his public image and that, over time, his public actions will consistently match his public beliefs." (Walker & Schafer, 2000b, p. 6). Partially a reflection of the belief that a leader's statements reflect their self perception of their own role and identity, this constraint is further bolstered by the need to maintain cognitive consistency between the individual's actions and deeply ingrained beliefs. These fundamental assumptions are necessarily of a slightly different character in their application to the terrorist organization. True, there is a degree to which the actions of such organizations are constrained by their public image: the need to make their actions palatable to their constituent population. However the more relevant constraining factor is likely the image portrayed by its actions to its own members. To maintain cognitive consistency between communal beliefs and behavior, the actions taken by a terrorist organization must be fully commensurate with the understood communal beliefs

of that organization lest it risk dissent and potential schism. This is increasingly important in modern, networked, terrorist organizations, in which their public actions and words form an important part of the communication between networked elements of the organization (Cronin, 2002). Thus while the inherent consistency of the belief structure is likely to limit the potential for public statements to consist of anything but the belief structure of the organization, it is also true that the actions taken by the organization can only deviate to a limited extent from this coherent belief structure. Circumstances under which the risks of deviation are undertaken are often seminal moments in organizational lives such as the decision of the Palestinian Liberation Organization (PLO) and Irish Republican Army (IRA) to formally enter into negotiation processes instead of continuing along strictly rejectionist fronts.

When applying the operational code concept to the leader of the state it is generally taken as axiomatic that, as leader, the individual under examination is capable of influencing the foreign policy process of the state; that being, after all, one of the responsibilities of state leadership. That the beliefs of the leader play an important role in this influence has been the subject of significant confirming prior research.[76] Is there reason to believe that the same conditions hold true for sub–state actors, particularly terrorist organizations? Presumably the conditions under which beliefs are most likely to impact decision–making for individuals are the very same conditions under which group beliefs would be similarly advantaged.[77] Beliefs

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[76] In addition to the numerous operational code articles cited herein, also note the conceptual complexity work of Herrmann (1977), leader image theory (Blanton 1996), as well as the leadership style research (George 1988, Peterson 1997) for examples of studies on belief impact.

[77] They obviously impact the personality and role traits of individual leaders in much the same way, the only questionable application is to the personality traits associated with the communal identity.

are presumed to be particularly influential on decision–making processes "when the environment is uncertain, that is when information is scarce, ambiguous, contradictory, or so abundant that it is difficult for leaders to organize and process (Holsti 1976, in Walker & Schafer, 2006a, p. 5). The situations in which beliefs are likely to have a causal impact on behaviors are "also very likely to occur when new information does not fit with a leader's preexisting beliefs based on old information, stereotypes, or other cognitive biases associated with threats to vested interests, or aroused by strong emotions such as fear, anger, shame, or hate." (Fiske and Taylor 1991; Jervis 1976; Stein 1988 as cited in Walker & Schafer 2006a, p. 5). These conditions, while being only conditionally true for state leaders, are far more likely to be present in terrorist decision–making due to the nature of their decision–making processes and the internal and external influences upon those processes (McCormick, 2003, p. 482).

Several researchers agree that the very nature of a terrorist organization requires a distinct emphasis on "collective beliefs" (Crenshaw 1986, 1988, 1990a; Hoffman 1998; Post 1990). Even organizations with loosely constrained network constructions retain high degrees of ideological cohesion with regard to both means and ends of their "struggle" whatever that may be. They operate in an environment of high levels of uncertainty, particularly with regard to their own survival and security issues. Time pressures upon their decision–making are often considerable. Their own perception of the struggle in dichotomous terms requires filtration of the often considerable but contradictory and ambiguous information received by the organization into simplified terms. These organizations also operate under near constant conditions of high stress and threat and are, potentially at least, motivated by strong grievance driven emotions. These organizations operate under conditions significantly conducive to the

development of groupthink behaviors as noted by (Crenshaw 1986). Further, the very act of membership in a terrorist organization may be seen as an extreme act of in–group / out–group distinction. Terrorists often consider themselves elites, part of only a handful of individuals both capable of taking the actions necessary for their goals and aware enough of the necessity for taking those actions. This form of identification with the group is exacerbated through social isolation, the extreme violence of their actions, and the death or capture of companions. Under conditions of such extremely polarized identification, high levels of group consensus are likely (Tajfel 1981, 1982, Turner 1987, Insko et al 1988, Druckman 1994). The extreme security under which these groups are required to operate reinforces such consensus, acting as a pressure toward both conformity and violence (Post 1990). Additionally, because of the extreme pressures and dangers of the operations conducted by these groups, operational command and control functions are likely to be highly centralized even in dispersed organizations (Post 1990). This tightens the linkage between the coherent belief structure of the organization and the actions of its members and points to the applicability of the operational code approach. One can reasonably suspect therefore that examination of the operational code based on materials and statements originating from group members will be largely indicative of the belief structure of the group as an aggregate entity.

Use of the operational code analysis construct makes it possible to determine whether significant differences exist within the belief structures of terrorist organizations. It also allows for comparison to other political actors that have been analyzed using this construct thus informing not only the on–going discussions regarding motivational elements in the definition of terrorism but also the presumption that counter–terrorist activities are fundamentally unique as foreign policy options because of the unique character of the actors

they are designed to counter. Methodologically, the direct comparability of the indices

generated from the VICS coding scheme addresses a significant weakness in the field of

terrorism studies. Directly comparable quantitative studies of terrorist groups are rare and

when they do exist they tend to emphasize only directly observable data (number of

operatives, religious/secular character, type of tactics utilized, organizational structure, etc.).

Beliefs of the organizations are often inferred from these types of studies, usually augmented

with personal insight gleaned from personal, in–depth study of either the specific group or

groups or the particular trait, such as religiousness, under study. This has resulted in a

plethora of well thought out and researched studies that lack the ability to be directly

compared hence limiting the development of the field via cross–comparison and hypothesis

testing.

Creation of the group operational code

Walker and Schafer maintained that one could arrive at the operational codes for states

through examination of the "public beliefs and intentions articulated by the official leader(s)

of the state" (Walker & Schafer, 2000a, p. 530). These need not be statements directly

attributable to the state leader however. In his introduction to a symposium on at–a–distance

psychological measures, Schafer (2000, pp. 513-514) suggests that additional sources may be

sought in the "official statements of the administration, which presumably are derived after

the leader and advisors have assessed the situation and proceeded to take action." While a

significant number of these statements may be articulated by the head of state (and potentially

reflective of a personal operational code), other official statements not attributable to him or

her, but nonetheless being official reflections of the state's position, should be representative

of a shared or prevailing belief system. In principle these, same sources and processes for

belief system generation, while articulated for the determination of a state's operational code, should be applicable to sub–state actors as well. Sjoblom (1982, p. 46) argued that, from the perspective of data collection, the group might be a more appropriate level of study: "collective operational codes may also be easier to construct in a valid way, because the content of a collective operational code has to be *communicated* between the members of the collective in question (thus making the 'latent structure' more or less 'manifest')." The presumption in this study is that the language utilized in the official pronouncements from terrorist organizations, whether attributable to a specific decision–maker or to the organization in general, is indicative of the group's belief system in the same manner that the statements of individuals are indicative of their personal belief systems.

The Coding Process

The VICS System

As indicated in Schafer & Walker (2006b) the objective of VICS was "to develop a content analysis system for verbal material that will let us assess the cognitive beliefs of our subjects in the form of an 'operational code'." Underlying this process is the premise that the way in which subjects speak of the world, events within it, and the actions of themselves and others is reflective of their beliefs regarding how the political universe functions and what their appropriate roles are within that universe. Numerous content analysis systems have been developed for the purposes of categorizing and coding state or actor behavior based upon classification of verb expressions (see Schafer & Walker, 2006, p. 30). A presumption underlying most of these systems is that verbs that represent either deeds (attack, defend, aid, etc.) or words (threaten, oppose, praise etc.) represent various forms of the usage of power by subjects and therefore the coding of those verb usages can provide valuable information

regarding how and when power is utilized by international actors. In contrast to event reporting schemes, VICS was created to capture the subject's own beliefs regarding the usage of power (both of others and their own) and as such relies upon verbs in the speech acts made by the subjects themselves rather than upon the reporting of subject actions by third parties (journalistic or historical recounting). In this way VICS returns data with respect to the actor's perception of what events transpired as well as the beliefs of the subject either undertaking or interpreting those events.

To do so, VICS isolates verbs and verb expressions from a subject's speech act and classifies them according to indication of cooperation (positive) or conflict (negative), level of intensity (1: low intensity, words, 2: medium intensity, words, 3: high intensity, deeds), and whether the grammatical subject of the verb is also the subject performing the speech act (self or other). Verb expressions that do not indicate either conflict or cooperation are not coded and do not impact the coding or aggregation process. The intensity and nature of the verb are assigned a value associated with one of the following verb signifiers: Punish (–3), Threaten (–2), Oppose (–1), Approve (+1), Promise (+2), or Reward (+3). For example, the sentence "State X attacked state Y." indicates a conflictual (negative) deed (3) on the part of state X and would therefore code as Punish (–3); the "self" or "other" assignation would obviously depend on whether the speech act is attributed to state X. It is this latter designation that allows for differentiation between the philosophical and instrumental beliefs originally articulated by George (1969). As indicated previously the philosophical indices represent the speaker's perception or beliefs regarding the approaches of others within the international system while the instrumental indices represent the speaker's beliefs regarding their own best approaches within that system. Therefore statements attributed to "other" on the basis of the

subject of the verb inform the philosophical indices while those attributed to "self" inform the instrumental indices. Each coded expression thus generates a data unit, referred to as an utterance, which includes both a self/other designation based on the subject and a numerical component based on the verb. Utterances are sorted and aggregated such that they provide quantitative measures of the philosophical and instrumental indices which can then be used in a variety of comparative analyses. Discussion of the calculation of each index from these utterances and the logic used to relate that index to the philosophical or instrumental beliefs follows.

The VICS Indices

The following discussion proceeds through the philosophical and instrumental indices indicating how each is calculated and relating that calculation to the relevant philosophical or instrumental question. Explanation for most indices is couched in terms related to leaders and it is worth noting that underlying each of these descriptions is the assumption that the beliefs alluded to hold true for the group under study, not just the individual speaker of the statement. Although in some instances the indices may actually be reflective of what the speaker perceives the group belief to be. Given the extreme pressures against alternative belief structures within the terrorist group environment the distinction between the two is likely irrelevant – that which is believed to be the group's belief is the belief that will be acted upon, even if not privately shared by all within the group. In some cases the interpretation of the calculated index differs from that of the main body of operational code literature. In those instances the alternative interpretation is provided along with explanation of the need for such re–interpretation.

Note that Schafer and Walker (2006b) contend that P–1 and I–1 are "master" indices and all subsequent indices are, at least partially, related to the values obtained for those two indices. There are no absolute values to compare the indices to. One cannot claim that a particular value of an index (say P–1) is objectively indicating a viewpoint of the world that is clearly hostile or cooperative. The best that can be said, absent absolute extreme values, is that the viewpoint of the actor is clearly more or less hostile or cooperative than that of a reference group.[78] For example, the state leader mean for the P–1 index which indicates the actor's view of how cooperative or hostile the political universe is, has a mean value of 0.28. One might be tempted to indicate that this means that state leaders view the universe as inherently hostile however, this may simply be an artifact of the coding process. There are significantly more verbs which code as conflict indicative than cooperation indicative. It is also possible that natural language processes could require greater emphasis on hostile words and deeds while cooperative words and deeds need less explanation. To the best of this author's knowledge there have been no serious attempts to interpret these indices on an absolute scale and this research does not differ from that approach however, the values obtained from the state leaders will be used as a relative benchmark to compare the values obtained from Hamas and al–Qaeda and various subgroupings within those organizations. This will be discussed in more detail in chapter five.

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[78] This study uses as its norming group the mean values of a set of 35 state leaders obtained from Schafer and utilized in the previous research of Walker and Schafer (Walker & Schafer, 2004; Walker, Schafer & Young, 2003). The exact makeup of the leaders in this set is unknown to this author.

The Philosophical Indices

P–1: What is the "essential nature" of political life? Is the political universe essentially one of harmony or conflict? What is the fundamental character of one's political opponents?

This index assumes that the image of other actors' policies and actions that is revealed in the speech acts is an accurate representation of the group's shared beliefs about politics, political conflict, and the nature of other actors (Schafer & Walker, 2006b, p. 33). While it does represent the group's belief regarding the strategies of others within the international system it cannot be taken to represent the strategic policies of a specific other as the VICS system does not distinguish between allied and non–allied others but merely presents an "on–balance" measure of hostility of the environment. To some degree then it can also serve as a measure of isolation – the higher the level of cooperation indicated by the index the higher likelihood that utterances refer to actors engaging in cooperative acts with the group while extreme low values of the index would indicate a far smaller likelihood that utterances refer to allies of the group. The index is calculated by subtracting the percentage of negative (conflict indicating) utterances from the percentage of positive (cooperation indicating) utterances that are attributed to "other." The index thus varies from –1 to +1 with low values indicating a view of the political universe as one that is inherently conflictual and hostile and high values indicating a view of the political universe as one that is inherently cooperative and friendly.

P–2: What are the prospects for the eventual realization of one's fundamental political values and aspirations? Can one be optimistic, or must one be pessimistic on this score; and in what respects the one and/or the other?

Previous interpretations of the P–2 index relied upon the premise that the perception of a more cooperative universe produces an optimism for the attainment of the political goals of the speaker and that the opposite must be true of a conflictual universe. However, achievement of one's political aims may be likely regardless of the intensity or persistence of conflict in the system. In fact, one can argue that certain classes of international actors would see an intensely hostile system as useful in the achievement of their aims. This may be particularly true of terrorist organizations, especially if the goals of said group include destabilization of the political environment, demonstration that the status quo cannot safeguard their position, or the causation of a religiously inspired "endtimes" all of which have been attributed as goals of one or more terrorist groups. Similarly even if the P–1 and P–2 indices were reflective of a political environment with a great deal of allied actors and cooperative behaviors, the relative resource disparity of the terrorist organization could well result in a pessimistic worldview.[79] Thus it seems more appropriate to forgo the leap from a measure of the intensity of conflict or cooperation in the system to organizational optimism or pessimism and to interpret this index simply as an intensity measure.[80] Therefore while the P–1 index is seen as the perception of the strategic goals of others the P–2 index is interpreted in this project as the perception of the tactical means employed by others to achieve those goals. Viewed in this way the P–1 and P–2 indices also have the benefit of mirroring the interpretations of the I–1 and I2 indices. Rephrasing the index statement in this light is appropriate and this restatement will be used in all subsequent references.

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[79] However, such a conclusion runs counter to conventional wisdom with regard to the optimism of these kinds of organizations. Hoffman (1999, p. 169) points to the group belief in the inevitability of their cause and the resultant optimism in achievement of group goals.

[80] Walker expressed agreement with this re–interpretation noting that "it may be better to consider the present P–2 index as simply the intensity of other's tactics" and that "An index of optimism/pessimism with greater content validity might be a combination of the present P–2 and P–4 indices" (personal e–mail communication, December 5, 2003).

P–2: What do actors within the political universe perceive as being the most effective means of pursuing their intended goals? How intensely do actors within the political universe pursue their goals?

This restatement of the P–2 index should not be taken to indicate that the P–2 index cannot impact a group's optimism or pessimism, the logic of this interpretation certainly has merit; it does however reflect this author's belief that the true measure of the optimism or pessimism cannot be achieved from a single index, if indeed it can be measured from the classic operational code indices at all. Index reinterpretation does have costs associated with it. The first of which is comparison to other studies which hold to the original interpretation. While the values of the index can be compared, interpretation of the meanings of those values likely cannot. Further, this reinterpretation leaves the researcher unable to provide a one to one correspondence between the VICS generated indices and the philosophical beliefs posed by George. The index is calculated by summing the weights of all other attributed utterances (weights correspond to the intensity values for each utterance varying from –3 to +3) and dividing the result by the total number of other attributed utterances. To make the values of this index consistent with the ranges for other indices the resultant figure is divided by three thus varying between –1 and +1.

P–3: Is the political future predictable? In what sense and to what extent?

The P–3 index is intended as a measure of the subject's perception of the predictability of the actions of others. The measure is based on the presumption that the more limited the variety of the perceived other actions the greater the predictability. The metric used to derive this index is the Index of Qualitative Variation (IQV; Watson and McGaw 1980, 88). The IQV is

subtracted from one to yield a score from 0 to 1; low scores indicating less perceived predictability and higher indicating greater perceived predictability.

P–4: *How much "control" or "mastery" can one have over historical development? What is one's role in "moving" and "shaping" history in the desired direction?*

The perception of the degree of control one has over political outcomes is measure by the P–4 index. The index is based on the presumption that the actor perceived by the subject as taking or involved in the most actions reflects the subject's association of the locus–of–control with that actor. The index measured as a ratio of the number of self utterances to the total number of self and other utterances.[81] This results in an index range between 0 and 1 with low values corresponding to a locus–of–control outside of self and high values corresponding to a perceived locus–of–control within self. This index in conjunction with the P–2 index also serves as a better indicator of the degree of the subject's optimism/pessimism in the attainment of goals than does the P–2 index alone and is discussed below under the category of P–2–revisited.

P–5: *What is the role of "chance" in human affairs and in historical development?*

According to Schafer and Walker (2006b, pp. 34-35) the role of chance in political affairs is logically related to the degree of control one has over those affairs and the degree of predictability of other actions. "The more predictable the political universe and the more self has control over events in the political universe, the lower is the role of chance." While true, this same logic is less applicable to other combinations of these two indices. A high variation in the perceived tactics of other is not necessarily related to a higher role of "chance" nor is a

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[81] This is the only index that makes use of both self and other utterances for its calculation.

locus–of–control located outside of self. The latter may simply be indicative of perceived resource disparity and lack of potentially cooperative others. The former can result from a number of factors: a large number of others pursuing differing strategies, high variations in the strategies employed by others, or a need to respond to rapidly altering environmental factors. However, a fluid or varied political climate is not necessarily one in which chance plays a large role. This index is calculated by subtracting the product of the P–3 and P–4 indices from 1. This calculation exacerbates the questionable linkage between George's question and index since a low value for either the P–3 or P–4 index can result in a high measure of perceived systemic chance as is indicated by the fact that the state leader mean for this index is 0.98 on a 0 to 1 scale. This author is unwilling to commit to an interpretation that attributes a perception of the role of chance at such an extreme level. Likely a more accurate assessment of the role of "chance" can be achieved via subjective interpretation of statements. Unfortunately no other useful interpretation of this index is immediately obvious. Measurements for Hamas and al–Qaeda are included and compared to those for the state leaders but interpretation of the meaning of those comparisons is limited.

P–2–revisited: *What are the prospects for the eventual realization of one's fundamental political values and aspirations? Can one be optimistic, or must one be pessimistic on this score; and in what respects the one and/or the other?*

A high degree of mastery over political outcomes and a strong role of self in the "shaping" of history should be associated with a greater optimism for the attainment of one's political goals particularly if the P–4 value is high in spite of high P–2 values, indicating a strong ability to achieve one's goals regardless of the level of conflict or opposition that may be present in the system. The highest degree of self optimism is likely to be present with high

P–4 and P–2 scores. The high P–4 indicating an ability to steer and control political events and the high P–2 indicating the presence of strong systemic cooperative behaviors potentially aiding self in the achievement of goals. In contrast the highest degree of self pessimism is associated with low scores for both indices. Not only is the locus–of–control outside of self but the prospect for cooperative behaviors from others to achieve self goals is low. A high P–4 coupled with a low P–2 indicates a strong belief in self's ability to control outcomes regardless of the level of system conflict and absence of potentially beneficial cooperative behaviors. A low P–4 coupled with a high P–2 results in a moderate pessimism. While the presence of cooperative behaviors within the system is encouraging, the inability to shape political events results in a self that is at the mercy of that cooperation to achieve its goals. Goals that are supported by the larger political system may be reasonably achievable while those that are not are likely to face coordinated opposition and hence a high prospect of failure.

The Instrumental Indices

I–1 *What is the best approach for selecting goals or objectives for political action?*

In the same way that the P–1 index provides a measure of the perceived strategic direction of others, the I–1 index provides a measure of the subject's view of their own most appropriate strategic direction. As with the P–1 index the logic behind this measure relies on the presumption that the balance of cooperative and conflictual utterances, attributed to self, parallels the direction of their strategy. The more a subject speaks of their own conflictual actions the more conflictual the direction of their strategy is presumed to be and vice versa. The index varies from –1 to +1 with high values indicating a cooperative strategic approach and low values an emphasis on conflictual approaches. The index is measured by subtracting

the percentage of conflictual self utterances from the percentage of cooperative self utterances.

I–2 *How are the goals of action pursued most effectively?*

While I–1 provides a measure of the strategic direction assumed by the subject, the I–2 index captures the tactical means employed to pursue that direction by measuring the intensity of that pursuit. Similar to the P–2 measure, the I2 index is calculated by summing the weights of all self attributed utterances (weights correspond to the intensity values for each utterance varying from –3 to +3) and dividing the result by the total number of other attributed utterances. To make the values of this index consistent with the ranges for other indices the resultant figure is divided by three thus varying between –1 and +1.

I–3 *How are the risks of political action calculated, controlled, and accepted?*

The I–3 index relates to the subject's risk acceptance level. Here the variation in tactical options employed is utilized as a proxy for risk acceptance. A limited number of options employed implies a high risk acceptance in that the subject is willing to "put all their eggs in one basket" as it were. Whereas a high variation of tactical options is related to less willingness to undertake the risk that adherence to limited tactical options implies. Schafer and Walker (2006b, p. 36) relate this in economic investment terms in which a diversified portfolio is linked to lower risk while a narrow portfolio is linked to high risk investment. While the index itself measures only this specific form of risk acceptance (the risk of limited options) there is no *a priori* reason to presume that this form is not related to other forms of risk acceptance such as the use of options which entail possible group member loss, constituent backlash or the pursuit of strategic goals counter to those of more powerful actors.

Diversity in tactical choice is determined via the IQV dispersion measure with the formula of 1– the IQV for self utterances. This results in a measure from 0 to 1 with high values indicating low levels of tactical diversity and therefore high levels of risk acceptance. Low values indicate high tactical diversity and a correspondingly low level of risk acceptance.

I–4a and I–4b *What is the best "timing" to advance one's interests?*

The fourth instrumental index also measures tactical flexibility by relating the diversity of tactical choices to the subject's flexibility in alternating between types of actions. This index is subdivided into two categories, the first of which (I–4a) measures the subject's flexibility between conflict and cooperation actions. The second (I–4b) measures the subject's flexibility between word and deed actions. Both indices range from 0 to 1 in value with higher values related to greater flexibility and lower with lower flexibility. They are calculated from the absolute value of the percentage of one tactical option (cooperation or word) minus the percentage of the tactical alternative (conflict or deed respectively). Use of the absolute value allows the index to capture only the degree to which the actor switches between the given tactical options and not the direction of tactical preference which for I–4a is captured via the I–1 measure; the I2 index indicates direction preference for the I–4b index. Schafer and Walker (2006b, pp. 36-37) relate these indices to refinements of actor risk acceptance relating the first to the balance of "risk of domination by others against the risk associated with deadlock" and the second the "risk of doing too much against the risk of not doing enough." Here the relationship between risk and flexibility seems less clear than with the I–3 index. The I–4a and I–4b measures only consider the variation between two options (rather than the variation measured across six options via the IQV) and the dichotomous nature of these measures limits their ability to measure dispersion. Therefore it may more

applicable to limit interpretation of these indices to measures of actor flexibility between tactical options rather than stretch the interpretation to assume commentary on risk acceptance.

I–5a through I–5f *What is the utility and role of different means for advancing one's interests?*

This series of indices is intended to capture the subject's perception of the relative values of various tactical options that are available to them. This does not necessarily reflect the subject's beliefs regarding the value of the tactical options themselves but rather the appropriateness of the mix of tactical options. For example a given actor may highly value cooperative deeds (Reward) but may perceive the cost of engaging in those actions prohibitive and hence attach a higher utility to cooperative words (Promise or Approve). Calculation of these measures follows the logic that the relative percentage of utterances linked to each tactical option will reflect the relative utility the subject perceives inherent in those options. Each index is linked to one of the six verb categories indicated earlier and is simply the ratio of utterances of that verb category to the total number of coded utterances, expressed as a percentage. I–5a corresponds to the Reward verb category and they follow stepwise to I–5f which corresponds to the Punish verb category. Higher numbers correspond to the greater utility the subject attaches to a given tactical option. As all coded verbs correspond to one of the six verb categories the percentages associated with the six indices should total 1.

Coding Procedures

This section details the procedures for computerized VICS coding of a subject's operational code. While it is possible to perform VICS coding by hand and all early coding was in fact done so, the process is labor intensive, time consuming, and subject to both human error and inter–coder reliability issues. Nearly all recent coding has made use of an automated, full–language parser software program (*Profiler Plus*)[82] that was developed by Social Science Automation (www.socialscienceautomation.com) for the specific purpose of conducting at–a–distance psychological assessments of subjects. The program continues to be updated and the company has, with the assistance of primary researchers in the operational code field, developed large dictionaries of verbs, verb forms, coding and parsing rules for VICS coding.

The first step in the VICS coding process involves the gathering of appropriate texts and placing those in a digital format that can be interpreted via *Profiler Plus*. Fortunately a great deal of such raw material is readily available in such a format whether as digital collections of speeches or available as digital content via the internet. In the event that texts appropriate to the study are not readily available in this manner, some form of manual input or optical scanning and editing process can be used to generate the texts in a machine readable format. Each separate speech act requires some document preparation via the markup tools within *Profiler Plus*. Texts are encoded with the date of the speech act[83] and the author and can also be encoded with other information regarding the type of media, audience, spontaneity level and several other variables if relevant to the study at hand. Further document markup must be done so that *Profiler Plus* can ignore material that should not be coded: titles, headers, press

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[82] See Young (2001).
[83] When this information was not known the text used in this study were coded with the release date of the text.

or audience questions, non–political segments, essentially any element that needs to be maintained for the sake of context but should not be included in the coding process. Additional text markup may also be done at this point so as to clarify sentence structure particularly with translated documents that may require structure and punctuation alterations in order to make certain utterances code accurately. Additional text markup procedures were conducted on al–Qaeda statements and are discussed later in this chapter.

Profiler Plus categorizes utterances as self referential on the basis of a series of self referential pronouns. If the subject of the utterance is not in Profiler's list of pronouns the utterance is coded as other. Thus the statement "We strongly condemn this action." would be coded as self –1. However the statement "The Republic of France strongly condemns this action." Would be coded as other –1. This process can be refined by manual addition of "self" dictionaries to Profiler's existing libraries so that it can capture specific non–pronoun references as being self–referential. This process usually begins during text markup period. As the text is being altered note can be made of the variety of non–pronoun references to self found within the texts. These are then added to the self–dictionary of *Profiler Plus* to assure their proper capture as self referential utterances. For example if in the above case the speaker was a French politician clearly the phrase "Republic of France" is meant to be self–referential and could therefore be added to the self–dictionary so that it would be captured appropriately.

Once the texts are marked up appropriately and the updated self–dictionaries are loaded *Profiler Plus* can be set to automatically code individual or groups of documents depending on the aggregation needs of the researcher. Typically individual statements form the basic unit of aggregation. For each speech act, *Profiler Plus* codes each viable utterance separating

them into self and other designations and assigning a verb category score ranging from +3 to

–3. These are then used to calculate the indices discussed above thus producing an

operational code for that specific speech act. In some instances the single speech act is not the

final unit of aggregation. Aggregation over a period of time is relatively common and can be

handled in two distinct manners. The first is to sum the utterances across the time span, the

second is to take the mean value of the speech acts across that same time period. The

disadvantage of the second approach is that it over emphasizes the contributions of shorter

speech acts, giving them equal weight to the longer speech acts within the time period

studied. Summation of the utterances however prevents certain types of statistical analysis in

that with only one score for the time period there is no mean or variance of the operational

code over that period. A alternative use of the summation form of aggregation is to counter

problems resulting from document brevity.

Speech acts which are too short to produce meaningful VICS indices can sometimes be

aggregated over brief time periods to produce enough raw data to generated meaningful VICS

indices. Past operational code research has specified either a minimum raw word count for

speech acts (approximately 1000 to 15000 words, Walker and Schafer, 2000a, pp. 532-533)

or a minimum number of coded verbs per speech act (approximately 15 to 20 as specified by

Walker and Schafer, 2006b, p. 44, see also note 14). Speech acts which do not meet these

minimum thresholds can either be dropped or combined with other speech acts from the same

time period to produce a summed valued for the indices. It is likely that this process has the

side effect of increasing the standard deviation for models that employ several such summed

data points because of the greater variation introduced in summation across speech acts

occurring under differing conditions. The researcher must weigh this detriment against the

alternative which is to simply disregard the data in the otherwise uncode–able speech acts. In dealing with organizations that often have extremely brief speech acts, taking the latter approach would have resulted in an inability to apply the operational code approach in any meaningful way to the organizations hence chronologic aggregation of speech acts into groups with at least minimum raw word counts was the preferred course of action.

This issue is directly related to the question of how much data is enough to have confidence in the operational code generated. Obviously one does not need to code every speech act by a given actor in order to generate a viable operational code however, equally obviously one's confidence level in the VICS indices generated from a single, minimally acceptable speech act would be extremely limited. There is no hard and fast rule to this issue. Recommendations by Walker and Schafer (2006a, p. 44) indicate that a 10 speech act minimum is about right but that the researcher must be guided by their own instincts and by the kinds of statistical techniques that are to be applied to the data. In other instances the researcher will be faced with unique data collection limitations which will define the kinds of approaches that can be taken with the data.

A useful starting point for most operational code projects (including this one) involves comparison of the operational code generated by the research with that of a "norming" group of state leaders. This group of data has been compiled across thirty five separate leaders and comprises nearly one hundred and seventy separate speech acts. Means and standard deviations for this group have been computed and are publicly available. Due to the sample size and the diversity of leaders studied it serves well as a proxy for an "average leader" profile and is therefore useful as a baseline to which other actors can be compared. While the

literature on terrorism generally does not include direct behavioral comparisons between other international actors and terrorist organizations, nonetheless, the indices of the state leader norming group can provide an appropriate comparison set for terrorist organizations. There exists a general (although not universally held) presumption that terrorist groups are engaged in behaviors considered to be outside of the norm for international actors. Lacking absolute measures for the operational code indices, judgment of the meaning of any given index's value can only be assessed by comparison to some set of baseline values. Since the values obtained from the norming group of state leaders are presumed to represent a kind of average belief system spanning the full gamut of behaviors at the international level, they can be generalized to represent the spectrum of complex political entities for which the operational code approach is applicable. Therefore, although alternative comparison groups are certainly viable, for this project, the index values obtained from the norming group of state leaders serves as the baseline scores from which relative values can be interpreted. The comparisons to state leader values represent evaluations of the terrorist organization scores relative to this baseline and should not be taken to represent tests of specific hypotheses regarding differences in state and terrorist organization behaviors. However, as Walker and Schafer (2006a, p. 45) point out, these comparisons should be limited to those studies that rely upon VICS coded indices generated by *Profiler Plus* and that rely upon similar custom self dictionary development. It would not be appropriate to compare these indices to those generated via hand coding, processes utilizing programs other than *Profiler Plus*, or processes not employing custom self dictionaries.

Coding al–Qaeda and Hamas

As with any research project real world limitations produced deviations from the desired coding procedures outlined above. The following section documents the various challenges presented by coding al–Qaeda and Hamas speech acts and the means utilized for overcoming those challenges.

Document Selection

Unlike state leaders, in which most policy statements can be assumed to be indicative of the policy of the state they represent, individual members of terrorist organizations may well have publicly accessible speech acts which are not representative of the organization to which they belong. In instances in which the salience of the individual's membership in the organization is not paramount, the linkage between the beliefs extracted from that speech act and the beliefs of the organization may be tenuous. Document selection for this study therefore required that there be some indication that the individual speaking was doing so as a representative of the organization. This meant that certain documents that have been included in other analyses were excluded from this one. In particular, texts written by Zawahiri such as Knights Under the Prophet's Banner that do not indicate him writing as a direct representation of al–Qaeda were excluded. Similarly lengthy works from Hamas leaders such as Ahmad Yassin were excluded if it was not apparent that the text was intended to be representative of the beliefs of the organization. Instructive future analysis might well include these texts in an effort to determine just how different the belief system of the individual is when not under the condition of speaking for the organization. This could very well provide a glimpse into the level of belief system conformity that is exercised by the organization: the degree to which beliefs alternative to those of the organization are tolerated.

In comparison to most state leaders the amount of text available for coding from al–Qaeda was quite limited. Compilation of speech acts was further constrained by the need for accurately translated documents. However limiting the document choices to those with already present English translations can be seen in a positive light. The translation process is itself a form of selection process. Of all the available statements associated with al–Qaeda or Hamas only those deemed important enough to warrant translation were likely to be widely available via internet search. In the case of Hamas the number of speech acts available for coding was quite large (although the length of each speech act was very small) therefore effort was made to limit the data collection to prominent statements, those readily found in previous collections,[84] and those that directly addressed the core issue of the organization (the Israeli–Palestinian struggle).

At the time the coding process began there was no publicly accessible comprehensive collection of full–text translated al–Qaeda or Hamas speech acts. Major news sources that publish electronically were of some assistance, though it is common practice to quote only excerpts of the texts. In some instances only partial statements were available from sources such as the Middle East Media Research Institute (www.memri.org). In instances where the complete text was unavailable in a translated form the text excluded from the coding process so as to ensure that selective translation of the text would not skew the indices generated from it. Third party websites of various persuasions have partial collections of full text documents and/or lists of al–Qaeda and suspected al–Qaeda public communications. Use of these sources in combination with one another provided an inventory of texts for coding purposes.

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[84] For instance, most of the statements published by Alexander (2002a) are available in various locations online.

Still the relative paucity of texts available presented a not inconsiderable challenge.[85] This was compounded by the issue of authentication. Various communications reported as originating from al–Qaeda by one or more sources are disputed by other sources. This is particularly true of texts obtained from third party websites. Unless corroborated by a major news wire or by a preponderance of sources, communiqués issued by suspected or rumored al–Qaeda members were generally not included in the database of coded texts. However, the limited number of statements and the brevity of some of them necessitated as near a comprehensive collection as possible thus requiring the inclusion of certain statements representing beliefs potentially outside of the core beliefs of the organization.[86]

The relatively small number of documents available was compounded further by the size of those documents. Rarely, do document lengths approach that of the major works of state leaders. Obtaining the operational code of a state leader whose statements can easily exceed several hundred or even thousand sentences is a very different prospect than obtaining the operational code for an organization whose communications are frequently limited to several dozen sentences and only rarely reach several hundred sentences in length. When dealing with multiple thousands of potentially code–able sentences the occasional non– or miss– coded sentence is of little statistical significance. The impact of inappropriate coding is raised substantially when one has less text to work with, thus putting a premium on coding

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[85] Both Hamas and al–Qaeda continue to release statements appropriate to the coding process thus alleviating some of the limitations presented however, one must chose some point at which to cut off the data collection process. In the case of this project the arbitrary choice of the end of 2005 was chosen. Collection of additional speech acts continues however and will be utilized in future projects.

[86] Several statements from Zarqawi and an interview with former bin Laden bodyguard Abu Jandal were included for this reason.

accuracy.[87] Thus an additional difficulty faced when coding al–Qaeda was in the issue of ensuring correct sentence parsing. Several characteristics of the al–Qaeda texts contribute to the generation of errors in this parsing process. These are not necessarily unique to statements from al–Qaeda but are made more problematic by the increased need for coding accuracy. The quality of the machine readable texts that are available is highly variable, particularly in the realm of sentence construction and proper use of punctuation. A lack of sentence ending punctuation or the presence of open ended quotation marks is common. Both of these situations, as well as several other less common ones, generate errors in the coding process and must be addressed. Sentence length and complexity, the use of idiomatic expressions, extensive use of passive voice constructions and the prevalence of metaphor and analogy can also degrade the accuracy of the parsing process. Sentence complexity was a distinct issue as multiple independent and dependent clauses to a single sentence tended to be the rule for al–Qaeda statements. Sentence complexity was further accentuated by significant use of passive voice forms as well as extensive use of metaphor and analogy within the statements. Similarly, idiomatic expressions within the Arabic language could cause misidentifications of the subject or object of transitive verbs in the sentence. The use of metaphor and analogy occasionally had the effect of disguising self–references, a fact that can be elicited by a human reader but not by machine coding. Occasionally, the word choice of the translator is also problematic although this generally was not the case.

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[87] An additional difficulty arises in text selection because of the need to ensure that the operational code constructed is an accurate representation of the organization and not of a single individual. In the case of al–Qaeda this necessitates the inclusion of documents that are delivered by individuals other than Osama bin–Laden. This does, however, present an interesting future research direction in the comparison of the overall operational code to that of the single individual, thus providing a check on the argument of the coherence of the belief system across members.

It should be noted regarding the issue of translation, that while one obviously wishes to be confident in the veracity of the translations provided this is not as large an issue as might seem at first glance. In particular the impact of translator word choice is minimal so long as the basic intent of the word is not altered. While for some applications exact word translation may be in order, the VICS coding scheme is relatively impervious to those issues. For instance, VICS would code the verbs *kill, annihilate,* and *destroy,* all as conflictual deeds with a –3 value, exact word choice is irrelevant to the general meaning of the verb. This does not mean that translation issues did not arise however, particularly in the area of sentence complexity and punctuation. Often the choice was made under those circumstances to use the translated text that was most clear and least complex unless that resulted in a coding result that seemed at odds with sentence context.

A third area of difficulty arose in the process of identification and coding of VICS code–able verbs. At the time of coding initiation *Profiler Plus* recognized nearly 800 verbs (not including reductions of one verb to another depending on exact verb phrasings) however there were occasions when a translator would make use of a non–coded verb while another would make use of a verb which is coded. Similarly, occasions arose in which the meaning of a non–coded verb in a sentence was clearly synonymous with another verb which does code. Occasionally, this word choice resulted in a verb structure emerging from the parsing process labeled as a noun or noun phrase and thus was not picked up by *Profiler Plus*'s VICS capture. Verbs such as "strike," "hit," and "defeat" which have dual usage as both verb and noun were particularly susceptible to this kind of coding error. Sentence complexity also plays a role in that multiple objects of single verbs were often not captured as separate VICS coded phrases. Complexity could also make proper identification of a verb's tense difficult for *Profiler Plus*

and this could alter the VICS value assigned to that verb. Certain verb codings are dependent upon the object of the verb and whether that object indicates that the verb is being used in a cooperative or conflictual manner. To the extent that sentence complexity can obscure verb objects this also led to improperly coded verb phrases.

The last area of difficulty faced dealt with the process of identification and coding of the subjects and objects of the coded verb phrases. There are two potential sources of error here. The first arose when improper subject or object identification resulted in a change in the VICS value assigned to the verb. The second arose when the subject was coded as "other" or was null coded[88] when it should have been appropriately identified as a self–reference (or vice versa).[89] As with verb identification and coding, sentence complexity provided a significant obstacle to proper coding. The use of multiple subjects and/or multiple objects for a single verb phrase was common in these texts and was particularly challenging for *Profiler Plus* to isolate and code properly. Especially difficult were instances in which a noun or noun phrase served double duty as the object of one verb phrase but the subject of another (for example: *"God aided the mujahideen to defeat the infidels."*). *Profiler Plus* often did not pick up this dual role resulting in improper identifications. Complex noun phrases also sometimes generated misidentified subject or objects. For example, in several texts the phrase *"group of vanguard Muslims"* was used in reference to al–Qaeda and as such required capture as a self–reference. Most of these kinds of constructions were resolved through judicious updating of the nouns and noun phrases that *Profiler Plus* perceives as self–references. Unique

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[88] *Profiler Plus* was either unable to find a subject or was unable to make a determination between two or more possible subjects.
[89] Subjects and objects may also be null coded if they do not appear in *Profiler Plus*'s list of potential actors or self–referencing nouns. Subjects and objects that are null coded are automatically considered to fall into the category of other–reference.

constructions, however, were not uncommon and could be easily missed except by sentence deconstruction of the coding process. Further, third person references abounded within the translated statements and this presented a special challenge when a third party pronoun (such as "they") referred to a noun in a previous sentence that was self–referencing. An additional factor in the subject/object identification had to do with the issue of possessive noun phrases. Generally possession by self should denote coding as a self reference as in *"God will protect our children."* The phrase *"our children"* is coded appropriately as a self–reference: "God—Protect—Self". If we substitute the word *"enemy"* for *"children"* however it is clear that this should be coded as a reference to "other."

It is worth reiterating that while these issues exist to one degree or another with all texts translated into English (as well as with some English texts), the scarcity of the al–Qaeda communications and their brevity made it imperative that additional measures were taken in order to ensure that as much information was extracted from the texts as possible and that it was highly accurate. For state leaders minor coding errors or missed coding opportunities can often be avoided through a selection process that emphasizes easily coded speech acts. Coding errors may also be limited in their impact given the greater preponderance of correctly coded material in these generally lengthier works. Neither of these options was generally available for the VICS coding of terrorist statements and so greater care had to be employed to accurately capture as many potential VICS coded interactions as possible.

Coding Alterations for al–Qaeda

In an effort to extract all viable utterances from the limited text available for al–Qaeda the automated coding process was augmented by a document clean up process primarily intended

to clarify particularly obscure or complex statements. Some of the alterations that were made to either the texts or the coding dictionaries were no longer necessary in the version upgrade that was used to code the Hamas documents. Also because of their generally less complex sentence structure and larger supply of code–able text there was no need to undertake this time consuming task with the Hamas coding. Only minor text cleanup was necessary before allowing for automated coding via *Profiler Plus*. The following process therefore, except where explicitly noted, applies only to the document clean–up process applied to the al–Qaeda speech acts.

As stated earlier the generation of operational codes for state leaders largely entails only some document mark up and modification to the words and phrases that *Profiler Plus* recognizes as being self–referential. For instance, if the speaker were to use the noun "al–Qaeda," *Profiler Plus* must be "taught" that this is a self–reference. These kinds of updates were still the primary updates for construction of operational code of al–Qaeda, however in an effort to accentuate the accuracy of *Profiler Plus*'s VICS coding process and thereby maximize the value of the limited amount of text available for this process, certain additional modifications to the coding process were implemented. These modifications follow in three parts. The first dealt with preparation of the text for coding. The second and third steps dealt with verb and subject/object attribution on a sentence by sentence basis.

As a preparatory step each speech act was coded with an author and date code. The date codes used reflected the date the speech act was publicly released. With some of the speech acts there may be a discrepancy between when the statement was originally made and when the speech act was released. The decision to use the release date was two fold. First, from a

matter of expediency, often the public release date was the only confirmable date that could be associated with a given speech act. Second, it is assumed that the decision to release a speech act can be taken as reasonable assurance that the beliefs expressed by that statement do not fundamentally clash with the beliefs of the organization at the time of the statement's release and by extension the indices extracted from that speech act are reflective of the operational code of the organization at that moment in time.[90]

For the first step, all potentially problematic punctuation was either corrected or eliminated. This included the closing or elimination of quotation marks, ensuring that sentences had suitable end punctuation (adding periods, question marks and exclamation points where appropriate), and the construction of independent sentences where ellipses or other markers were used to indicate missing, unintelligible, or otherwise untranslatable sections. These alterations were also done for the Hamas speech acts. In addition to the punctuation clean–up, sentences with multiple independent clauses were set apart into separate sentences. Likewise, where a single noun or noun phrase was serving as both object for one independent clause and subject for a second such clause the clauses were divided into separate sentences. For example, the sentence:

"God aided the mujahideen to defeat the infidels."

Became the following separate sentences:

"God aided the mujahideen." and "The mujahideen defeat the infidels."

Similarly, if a single noun or noun phrase served as the subject for multiple verb actions those were separated into independent sentences so as to clarify subject attribution. The sentence:

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[90] Granted this may not be true for all documents. If the overriding reason for the statement release was to demonstrate the continued survival of the organization or individual, this may well take precedence over minor belief differences.

"We shall defeat the infidels and the oppressors and crush the new crusader campaign."

became:

"We shall defeat the infidels and the oppressors." and
"We shall crush the new crusader campaign."

These changes facilitated *Profiler Plus*'s recognition of the appropriate subject. In the latter case it prevented "oppressors" from being incorrectly identified as the subject of the verb "crush." Where pronouns occurred that referenced noun or noun phrases in previous sentences, the pronoun was replaced by the noun or noun clause in order to clarify the actor in question. This was particularly important if the pronoun was referencing a subject that was a self–reference, but the pronoun itself was not indicative of a self–reference. If, for example, a previous sentence referred to members of al–Qaeda as "our brothers," and a latter sentence referred to them using the pronoun "they," this would not be captured properly as a self–reference without pronoun substitution. Once these steps were taken, the text was run through the coding process to generate an initial coding for each sentence.

The second step in the modification process was to take these initial codings and check for incorrect verb coding. This could occur in one of two forms, either a verb should be coded and was not, or the verb was assigned an incorrect VICS value. When available the first course of action was to consult alternate translations for alternate word choices. In the case of a valid but un–coded verb the likely culprit was either a VICS eligible verb emerging from the parsing process labeled as another part of speech, or a verb which was not found in the VICS dictionary but was a strict synonym for one that was. Replacement with an alternate translation and then recoding often resulted in an appropriate capture and coding of the verb. In the instance where there was no alternative translation or the alternatives still did not result in a code–able phrase, a search for other appropriate synonyms often yielded results.

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However, in the case where two or more appropriate synonyms would result in differing VICS values the phrase was null coded to prevent the introduction of an incorrectly coded value. *Profiler Plus* can also be updated to recognize some verbs as the equivalents of VICS code–able verbs. This kind of update (made to the ReduceNoise table in version 4.0 of the program) was the method of choice as it would account for future instances of the problematic verb. In situations where the verb was correctly identified as VICS code–able but an incorrect value was assigned, the task was more involoved. The parsing and coding routines were traced for that sentence in order to determine what generated the error. Often the verb tense was either incorrectly identified or *Profiler Plus* failed to appropriately categorize the object of the verb as conflictual or cooperative. In either case the solution usually required a minor edit of the sentence structure to clearly identify the tense and/or object.

The third step occurred simultaneously with the sentence by sentence verb check of the second step. Here the object was to ensure correct identification and coding of the subject of the utterance. Subjects are classified as "self," "actor," or "%null%" by *Profiler Plus*. Both "actor" and "%null%" classifications are treated as "other" for purposes of VICS coding. Two types of errors occurred here. A self–referencing subject could be classified as "actor" or "%null%" or, much rarer, an other–referencing subject or object could be classified as "self." In the latter case a trace of the coding process revealed the exact "self" pattern that was being triggered and the appropriate table (Self Reduction in version 4.0) was updated. A special instance of this kind of coding error occurred as a result of a miss–coded possessive in which case alteration of the text was generally called for, such as replacement of *"our enemy"* with *"the enemy"* or simply *"enemy."* The former case usually indicates that a form of

self–reference was not caught on first run through and the text pattern was simply added to the appropriate table (Self Reduction, ReduceNoise or both). Rarely this missed self–reference took the form of an idiomatic expression in which case it precluded the coding of a verb form that existed in that expression hence a situation where greater accuracy in subject identification actually cost the researcher a coded utterance. In general for both the second and third steps the solution of choice was a modification to the appropriate coding table within *Profiler Plus* so that further instances of these problems would not result in improper coding. Only when such modification altered other more generally applicable coding, the situation was obviously a unique occurrence, or when such modification still would not generate a proper coding was the actual text modified.[91] After the sentence by sentence modifications took place the resulting text was saved and assigned a tag to indicate it as a modified text. The modified text was then coded and the results were saved to be compiled with the results of other modified text runs into a usable operational code.

Issues Specific to al–Qaeda

While most issues of self–referential nouns were handled with simple additions to the Self Reduction tables, especially problematic were references to *"mujahidin,"* the appropriate coding of which often altered from document to document. Early bin Laden references to "mujahidin" were clearly meant to reference a larger body of individuals than just al–Qaeda, however later references by bin Laden and others refer to the individuals that carried out various operations attributed to al–Qaeda as "mujahidin". If coding as self was clearly

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[91] It should be noted that text modifications are not an unreasonable approach when dealing with translated texts. The translation process is often one of a series of judgment calls on exact phrasing, structure and word choice. So long as the alteration does not change the intent or intensity of the statement there is likely little, if any, harm done.

indicated for a particular document the date range for coding "mujahidin" as self was altered appropriately. In documents where the reference group was unclear or shifted between multiple meanings, the coding was handled on a case by case basis. Where the referenced group was unable to be determined from context the text was ignored so as to not influence the self and other ratio of utterances.

The presence of parables or Koranic citations also presented methodological issues. With the exception of purely parenthetical references these citations contain potentially valuable insights into the beliefs of the speaker. However from a coding standpoint this presents difficulties as "self" references are virtually impossible to determine without direct coder intervention. One option would have been to simply disregard them entirely however the deliberate exclusion of data from an already limited supply was considered the worst option. A second option was to rely upon the machine coded "self" and "other" references. While this would better capture the levels of conflict and cooperation indicated by the statements, the conflation of "self" and "other" would potentially skew the ratio of utterances and thus throw off the accuracy of the philosophical and instrumental indices. The option chosen therefore was to manually code these sections of the texts, making use of context to determine whether the references should be coded as "self" or "other". In situations where the appropriate reference was unable to be determined or was unclear, the relevant section of text was ignored and not coded to preserve the self/other statements ratio.

Direct references to Allah presented difficulties as well. Here it could be argued that Allah is most appropriately coded as "other" – an actor outside of the al–Qaeda in–group. However certain passages imply that it is taken as presumptive fact that al–Qaeda is carrying out the

desired wishes of Allah, that the divinity is guiding al–Qaeda, or simply that Allah is "siding" with al–Qaeda.[92] From this an argument could be made that references to God or Allah should be coded as self or, at least, excluded from the coding because of the ambiguous nature of the reference. However, the presence of idiomatic expressions such as "If Allah so wills it" seemed to clearly indicate that the divinity is an outside presence and although the al–Qaeda leadership may be attempting to carry out what they see as divine will, the actions and desires of Allah are clearly outside of their in–group. Since the coding of "other" statements results in indices taken as measures of an actor's beliefs regarding the political universe they operate in, and since Allah is clearly an agent within that universe but outside of al–Qaeda itself the decision was made to keep the Allah references and code them as "other".[93]

The Hamas Coding Process and *Profiler Plus* Version Change

All modifications to the coding and parsing processes of *Profiler Plus* version 4.0 were tracked during the al–Qaeda coding process. The coding of Hamas was done using version 5.0. This updated version incorporated most of these tracked alterations or obviated the need for them. The new version also improved the program's ability to handle sentence complexity and passive voice constructions. This along with the differences in text style of the Hamas statements greatly lowered the text cleanup period and the number of coding alterations necessary to achieve a high degree of confidence in the accuracy of their coding. In general

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[92] This seemed particularly applicable to statements made by bin Laden and only in lesser degrees to statements attributed to other al–Qaeda members.

[93] Some of these references likely do reflect instrumental rather than philosophical beliefs. A high percentage of the divine references are conflict indicative. With regard specifically to the P–1, P–2 and I–1, I2 indices it is therefore likely that the level of conflict and conflict intensity is slightly overstated on the P–1 and P–2 indices and slightly understated on the I–1 and I2 indices. This likely has little bearing on the results of this study given the extreme values that were calculated for those two indices.

the Hamas statements were less complex, there were fewer sentences with complex subjects and/or verbs, and instances of multiple dependent clauses seemed fewer. Divine references and the use of Koran citations and/or parables were also noticeably less. Self references to Hamas tended to be more direct and obvious than they were for al–Qaeda. These factors made the Hamas coding much less problematic. Compatibility between the coding generated from the two program versions was checked by randomly sampling modified al–Qaeda texts and coding those with the version 5.0 software. The results indicated no significant statistical differences between the coding done via the altered version 4.0 and the altered version 5.0. The unaltered versions of *Profiler Plus* were not compared.

The Aggregation Process

Documents were generally grouped in as short a time period as possible to achieve an operational code with which the researcher had a minimum degree of confidence: an absolute minimum of 1000 words in document length if that was enough to generate 15 or more coded verbs. Otherwise minimum length was taken as 1500 words. In as many instances as possible documents that exceeded the minimums were kept as individual speech acts and shorter speech acts were aggregated together to meet the minimum specifications. In some instances such aggregation was not possible in which case, rather than eliminate the shorter speech acts from the analysis they were combined with a single larger than minimum speech act and the indices were derived from the summation of their coded utterances. The overall operational codes for al–Qaeda and Hamas were derived from the means of each of these summed speech acts thus employing both summation and mean forms of speech act aggregation. An alternative aggregation form was also performed on al–Qaeda. Because of the diversity of speech act authors it was possible to sum the operational codes for the various authors and

then utilize the mean values across the authors to generate a slightly different look at the overall operational code of al–Qaeda.[94]

Analysis Methods

While this research project is not absent of specific testable hypotheses, it is by its nature an exploratory look at the use of operational code analysis for the study of terrorist organizations. Therefore some of the analysis may have the appearance of a "data mining" project. That is to be expected as a significant portion of the goal of this project is to evaluate the applicability of operational code analysis to these subjects. This study has been, in some ways, an exercise to see what kind of information can be gleaned from the use of operational code tool.

This partially explains the use of a variety of differing speech act groupings that were compared against one another in chapter five. In some cases these groupings were driven by specific substantive or theoretical questions such as whether the operational code of bin Laden differs from that of other al–Qaeda elements. In other instances groupings were specified as the result of clustering algorithms.

Cluster analysis attempts to group observations of similar kinds into distinct subsets referred to as clusters. It is as Kaufman and Rousseeuw (1990) observed "the art of finding groups in data." Although the number of approaches that can be applied to clustering is virtually limitless, all techniques fall into either hierarchical or partition (non–hierarchical) forms. Partition algorithms start with a set number of clusters and assign observations to each cluster

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[94] This form of al–Qaeda's operational code is available in Appendix One.

based on a proximity to pre–specified seed values for the clusters. The algorithm then recalculates seed values based on the resulting clusters and observations are reassigned. This process continues until no observations shift clusters. Kmeans clustering, the non–hierarchical form used here, calculates seed values based on the mean values of the observations within the cluster. Unlike partition algorithms which produce distinct clusters, hierarchical cluster methods link similar observations together to form a hierarchical structure indicating which observations are more or less similar to each other and at what level of dissimilarity groups of observations can be distinguished. These methods begin by considering each observation as a separate cluster and then combining the two observations with the greatest similarity (least distance) between them. This distance can be calculated in a number of different ways. In this study the distance was computed using an average of the differences between the variables making up each observation, a process known as average linkage clustering.[95]

Each analysis relied upon both hierarchical and non–hierarchical clustering algorithms. The operational codes of the statements in the resulting clusters were examined in an effort to determine both the relevance of these divisions and potential causes for clustering patterns seen. Initial cluster analysis was performed via an average linkage routine (*cluster average*[96]) in which the distance between any two observations is taken as the average of the distances between each variable in the observation. This provided an initial view of the level of differentiation seen in the data, provided insight into the kinds of divisions that might be meaningful, and helped to identify potential outliers or problematic clusters. Kmeans

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[95] For more information on cluster analysis see Kaufman & Rousseeuw (1990) and Everitt, Landau & Leese (2001).
[96] All cluster analysis was performed using Stata™ version 8.0.

clustering (*cluster k*) about a set number of groups (usually informed by the groupings

observed by the average linkage cluster analysis) provided a more detailed look at the kinds

of statements that appeared to share similar values.[97] It was hoped that these exploratory

forms of analysis would provide simple divisions that would match initial expected group

breakdowns. As with nearly all real–world data, the results were less defined and were more

noisy than hoped however these analyses did provide insights which proved valuable for later

difference of means tests between both organizations and organization subgroups. Questions

involving chronologic shifts in operational code could not, because of data limitations, be

addressed through standard time series operations and were therefore addressed via the

comparison of speech acts grouped in chronological categories.[98] Limitations on the number

of speech acts and the number of code–able utterances within each speech act provided

additional limitations to the types of statistical comparisons that could be used across each of

the various groupings. The small n values associated with most sub–groupings prevented the

use of anything but a simple t–tests for the difference of means across populations. Even this

simple statistical test was of suspect use at times as it relies upon data that approaches normal

distribution and issues of data skew and kurtosis for groupings with particularly small n

values were sometimes problematic. Still, the application, of even these limited forms of

statistical analysis, was capable of providing valuable insight into the beliefs of these

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[97] This form of cluster analysis requires the setting of initial starting points for the clusters. In order to maintain reproducibility the *everykth* option from Stata was used. This option divides the number of observations into *k* partitions where k is the selected number of clusters desired. Observations 1, 1+*k*, 1+2*k*, etc. are assigned to the first partition. Observations 2, 2+*k*, 2+2*k*, etc. are assigned to the second partition and so on until all observations have been assigned to one of *k* partitions. The group means within each of these partitions are then used as the initial group centers.
[98] Chronologic groupings were determined in two ways. Initial divisions were largely arbitrary, based upon a desire to maintain categories of roughly equivalent time spans and numbers of statements. Subsequent groupings were based upon the results of cluster analyses.

organizations as well as the potential utility of operation code analysis for the future study of

these kinds of groups.

Chapter Four:
Foreign Terrorist Organization Comparison to State Leaders and Comparison between al–Qaeda and Hamas

This research project seeks to demonstrate that Hamas and al–Qaeda perceive both the political universe and optimal behavior in manners that are distinct from that of other international actors. Therefore its primary hypothesis is that the operational code indices of Hamas and al–Qaeda will be noticeably distinct from the values obtained from the norming group of state leaders. The only other application of operational code analysis to terrorism (Lazarevska, Sholl, and Young, 2006) has indicated that terrorist leaders can be usefully distinguished from non–terrorist political leaders on the basis of seven indicators from Leadership Trait Analysis (LTA) and two from Operational Code analysis (the P–1 and I–1 indices). Their examination across 23 terrorists provides a base justification that the group belief systems for Hamas and al–Qaeda should also be differentiable from that of non–terrorist leaders. Their list of leaders represents a broad cross section of differing types of terrorist organizations and includes leaders from both of the groups studied in this project. While careful to distance themselves from the question of whether or not a specific *terrorist personality* exists, their work nonetheless provides reason to believe that there are commonalities in beliefs across the gamut of terrorist actors. The alternative conceptualization of the operational code, as a measure of the belief system of the organization, utilized in this study makes it possible to determine if the results of Lazarevska, Sholl, and Young (2006) extend to the organization or are limited to specific terrorist leaders. A secondary hypothesis is that these two actors, despite a shared categorization as terrorist organizations and a number of significant shared characteristics, can be usefully distinguished from each other on the basis of their beliefs as indicated by differences in their operational codes. The degree of difference between their belief systems is not a trivial issue. Levitt

(2007, p. 938) has indicated that emphasis on the far-enemy, as advocated by Azzam, has become more prevalent amongst radicalized Palestinians and that al-Qaeda operatives are actively seeking recruitment of Hamas members. The degree of similarity in belief systems between these two organizations can serve as a measure of the degree of this prevalence as well as a measure of potential for the success of these recruitment activities.

Previous research on terrorism has either suggested or been based upon several basic assumptions regarding terrorist motivations and behaviors. Several of these assumptions were indicated within the literature review of this work's initial chapter. If these assumptions are valid then one would expect that they would be evident from directional tendencies within specific operational code indices related to those assumptions. For instance, if true that the instrumental use of terrorism for all terrorist groups is indicated by a belief in the efficacy of the use of violence as a means of political change, then the value for the I-1 index (best strategy for achieving goals) should be reflected in a lower than state leader (more conflictual) score for that index. In most instances several index values are relevant to any given assumption and some indices may be appropriate for more than one assumption. The following table specifies the assumptions being evaluated, the indices related to that assumption, and the expected value for those indices. The logic relating an assumption to an expected index value, and a formal statement of each expectation is provided within the index discussions which follow. In some instances either the existing research on terrorism or the known characteristics of al–Qaeda and/or Hamas provide justification for competing assumptions. In those cases, the alternative is presented as well.

Table 4–1 – Evaluation of Common Assumptions Regarding Terrorism

Assumption	Statement of Expectations		Expected Values
Groups resort to and continue to utilize terrorist behaviors because of rational calculations regarding the efficacy of violence in achieving political aims and the lack of viable alternative courses of action.	P–1A:	al–Qaeda and Hamas perceive the universe as extremely hostile to their goals.	$P–1_{aq} < P–1_{sl}$ and $P–1_{ha} < P–1_{sl}$
	P–2A:	al–Qaeda and Hamas perceive other political actors as emphasizing conflictual tactics.	$P–2_{aq} < P–2_{sl}$ and $P–2_{ha} < P–2_{sl}$
	P–3A:	al–Qaeda and Hamas perceive the political behavior of others to be highly predictable.	$P–3_{aq} > P–3_{sl}$ and $P–3_{ha} > P–3_{sl}$
	P–4B:	al–Qaeda and Hamas attribute the primary locus of control over political events externally.	$P–4_{aq} < P–4_{sl}$ and $P–4_{ha} < P–4_{sl}$
	I–1A:	al–Qaeda and Hamas perceive conflict as the optimal goal achievement strategy.	$I–1_{aq} < I–1_{sl}$ and $I–1_{ha} < I–1_{sl}$
	I–2A:	al–Qaeda and Hamas perceive violent action as the primary tactical means of goal achievement	$I–2_{aq} < I–2_{sl}$ and $I–2_{ha} < I–2_{sl}$
The degree of societal isolation experienced by a terrorist organization exacerbates their level of violence.	P–1B:	al–Qaeda perceives the political universe as more hostile to its ends than does Hamas.	$P–1_{aq} < P–1_{ha}$
	P–2B:	al–Qaeda perceives conflictual strategies as being pursued more intensely than does Hamas.	$P–2_{aq} < P–2_{ha}$
	I–1B:	al–Qaeda perceives greater benefit from pursuing conflictual strategies than does Hamas.	$I–1_{aq} < I–1_{ha}$
	I–2B:	al–Qaeda has less moderating influences upon its use of violence than does Hamas.	$I–2_{aq} < I–2_{ha}$
	I–3B:	al–Qaeda's greater societal isolation exacerbates their acceptance of high risk behaviors.	$I–3_{aq} > I–3_{sl}$
	I–4ₐB:	Hamas' higher level of social embeddedness is indicative of a belief in the need for greater tactical flexibility.	$I–4_{aq} < I–4_{sl}$
Terrorist organizations have and/or develop strong negative images of their opposition.	P–2A:	al–Qaeda and Hamas perceive other political actors as emphasizing conflictual tactics.	$P–2_{aq} < P–2_{sl}$ and $P–2_{ha} < P–2_{sl}$
	P–3A:	al–Qaeda and Hamas perceive the political behavior of others to be highly predictable.	$P–3_{aq} > P–3_{sl}$ and $P–3_{ha} > P–3_{sl}$

Table 4–1 – Evaluation of Common Assumptions Regarding Terrorism (continued)

Assumptions	Statement of Expectations	Expected Values
Religious terrorist groups are less constrained in their use of violence.	P–3A: al–Qaeda and Hamas perceive the political behavior of others to be highly predictable. P–3B: Hamas' less deterministic religious beliefs result in lower expectations of predictability. P–4D: Hamas' less deterministic religious beliefs result in a lower locus of control attributed to God. I–1B: al–Qaeda perceives greater benefit from pursuing conflictual strategies than does Hamas. I–2B: al–Qaeda has less moderating influences upon its use of violence than does Hamas.	$P-3_{aq} > P-3_{sl}$ and $P-3_{ha} > P-3_{sl}$ $P-3_{aq} > P-3_{ha}$ $P-4_{aq} < P-4_{ha}$ $I-1_{aq} < I-1_{ha}$ $I-2_{aq} < I-2_{ha}$
Terrorist organizations believe in the inevitability of their causes.	P–4A: belief in the inevitability of their success equates to a perception of themselves as the primary locus of control in political outcomes.	$P-4_{aq} > P-4_{sl}$ and $P-4_{ha} > P-4_{sl}$
Terrorist organizations perceive themselves as vanguard elements for their causes.	P–4B: al–Qaeda has a more pronounced perception of themselves as a vanguard than does Hamas.	$P-4_{aq} > P-4_{ha}$
Long standing terrorist groups perceive themselves as "trapped" into a cycle of violence escalation.	I–4$_a$A: The primary reliance of al–Qaeda and Hamas upon conflict implies a low perceived need for tactical flexibility with respect to conflict and cooperation.	$I-4_{aq} < I-4_{sl}$ and $I-4_{ha} < I-4_{sl}$
Violent counter–terror operations exacerbate terrorist beliefs regarding the conflictual nature of their opposition.	P–2B: al–Qaeda perceives conflictual strategies as being pursued more intensely than does Hamas.	$P-2_{aq} < P-2_{ha}$

After a brief comment regarding the philosophical elements of the operational code, this chapter proceeds with an examination of the philosophical and instrumental indices,

examining each in turn. Each index is introduced by its corresponding philosophical or instrumental question followed by a discussion of the expected values for the index and the rationale for those expectations. This is followed by a scale of the state leader values (every two divisions corresponding to a single standard deviation from the mean value), the values obtained for al–Qaeda and Hamas, as well as the results of the relevant t–tests. The results of those t–tests are then discussed indicating their level of support for the relevant expectations, relevance of the results, and possible explanations for values counter to expectations. The chapter concludes with a summary of the comparison between these two organizations and the state leaders, and a summary of the comparison between Hamas and al–Qaeda including exploration of the potential division between them based on instrumental and expressive motivations.

Philosophical Elements of the Operational Code

It should be noted that the philosophical indices do not reflect the nature of one's political opponents only. They are measures of the perceived political universe excluding the self. As such they include the words and deeds of potentially allied agents as well. As indicated in the previous chapter, the philosophical indices for al–Qaeda may also include references from parables or religious quotations where the intended reference ("self" or "other") could not be reliably determined (all such references were coded as "other"). These indices may also include references to Mohammad and/or Allah (either directly or indirectly), which are clearly outside of "self" but could reasonably be assumed to be allied with the al–Qaeda cause. In the case of Hamas there are numerous references to the Palestinian people, to those participating in the intifada, and to organizations that share similar goals to Hamas. In at least one instance (Fatah), references which are attributed to "other" can vary from document to

document as to whether this refers to a political "opponent" (as would be the case when the Palestinian Authority engaged in settlement negotiations) or to a political "ally" (as would be the case when Hamas is indicating support for the authority's actions). Because of these factors it is incorrect to equate the perception of political "other" with the perception of political "opponent" for either group. While division of "other" into "ally," "opponent," or "other" is theoretically feasible, it is outside the scope of this work. Doing so would entail extensive modification to the "self" tables as well as additional modifications of the actual texts being coded and would introduce additional subjective judgments as to whether a given actor should be coded as "self" (an allied actor) or "other" (a non–allied actor). It is also unclear that doing so would lead to significantly better index interpretations. Because of their relative social isolation and the resultant strongly dualistic nature it is likely that terrorist groups have a greater Manichean tendency to equate "other" with "political opponent" which should serve to mitigate the above mentioned effects.

Additionally, as noted in the previous chapter's discussion of the coding process, Hamas statements are generally more explicit in their references to "self" than are statements from Al–Qaeda. This may have led to systematic undercounting of "self" references to al–Qaeda. However given the similarity of values obtained by P–1 and P–2 to the I–1 and I–2 indices for al–Qaeda, it may well be that this potential undercounting will only affect indices that rely upon the ratio of the number of "self" and "other" references, namely the P–4, and P–5 indices. Values obtained for the operational code indices of al–Qaeda and Hamas and the results of the t–tests comparing those values to those of the state leaders are summarized in the following two tables.

Table 4–2 – Comparison of al–Qaeda and State Leader Operational Codes

Operational Code Index	Group Assessed	Mean	Standard Deviation	T–Score	Significance
P–1	al–Qaeda	-0.208	0.151	-9.579	0.000
	State Leaders	0.280	0.195		
P–2	al–Qaeda	-0.251	0.110	-10.111	0.000
	State Leaders	0.133	0.148		
P–3	al–Qaeda	0.127	0.037	3.273	0.004
	State Leaders	0.093	0.023		
P–4	al–Qaeda	0.157	0.069	2.613	0.015
	State Leaders	0.212	0.067		
P–5	al–Qaeda	0.980	0.011	-0.089	0.930
	State Leaders	0.980	0.008		
I–1	al–Qaeda	0.100	0.389	-2.671	0.015
	State Leaders	0.387	0.226		
I–2	al–Qaeda	-0.066	0.229	-3.341	0.003
	State Leaders	0.149	0.152		
I–3	al–Qaeda	0.237	0.120	1.311	0.204
	State Leaders	0.192	0.089		
I–4a	al–Qaeda	0.680	0.229	1.351	0.190
	State Leaders	0.590	0.180		
I–4b	al–Qaeda	0.521	0.257	0.144	0.887
	State Leaders	0.511	0.184		
I–5a Reward	al–Qaeda	0.080	0.070	-2.715	0.012
	State Leaders	0.137	0.065		
I–5b Promise	al–Qaeda	0.053	0.094	-0.691	0.499
	State Leaders	0.070	0.041		
I–5c Approve	al–Qaeda	0.417	0.237	-1.082	0.294
	State Leaders	0.486	0.111		
I–5d Oppose	al–Qaeda	0.141	0.118	-0.041	0.967
	State Leaders	0.142	0.055		
I–5e Threat	al–Qaeda	0.108	0.121	1.959	0.068
	State Leaders	0.045	0.048		
I–5f Punish	al–Qaeda	0.201	0.138	2.114	0.048
	State Leaders	0.119	0.087		

N–al–Qaeda = 15   N–State Leaders = 35

Table 4–3 – Comparison of Hamas and State Leader Operational Codes

Operational Code Index	Group Assessed	Mean	Standard Deviation	T–Score	Significance
P–1	Hamas	-0.023	0.145	-7.836	0.000
	State Leaders	0.280	0.195		
P–2	Hamas	-0.104	0.117	-7.877	0.000
	State Leaders	0.133	0.148		
P–3	Hamas	0.104	0.039	1.637	0.105
	State Leaders	0.093	0.023		
P–4	Hamas	0.231	0.094	1.071	0.287
	State Leaders	0.212	0.067		
P–5	Hamas	0.974	0.018	-2.123	0.037
	State Leaders	0.980	0.008		
I–1	Hamas	0.322	0.262	-1.205	0.232
	State Leaders	0.387	0.226		
I–2	Hamas	0.074	0.147	-2.280	0.026
	State Leaders	0.149	0.152		
I–3	Hamas	0.277	0.141	3.372	0.001
	State Leaders	0.192	0.089		
I–4a	Hamas	0.635	0.197	1.086	0.280
	State Leaders	0.590	0.180		
I–4b	Hamas	0.389	0.220	-2.773	0.007
	State Leaders	0.511	0.184		
I–5a Reward	Hamas	0.077	0.071	-4.012	0.000
	State Leaders	0.137	0.065		
I5b Promise	Hamas	0.045	0.059	-2.285	0.025
	State Leaders	0.070	0.041		
I5c Approve	Hamas	0.539	0.155	1.821	0.072
	State Leaders	0.486	0.111		
I5d Oppose	Hamas	0.158	0.107	0.847	0.400
	State Leaders	0.142	0.055		
I5e Threat	Hamas	0.062	0.069	1.333	0.187
	State Leaders	0.045	0.048		
I5f Punish	Hamas	0.119	0.094	0.000	1.000
	State Leaders	0.119	0.087		

N–Hamas = 49   N–State Leaders = 35

The generally larger standard deviations for Hamas and al–Qaeda are to be expected given the aggregation of the smaller texts into single units in order to meet minimum word counts for effective VICS coding. It is worthwhile to note however that the two indices that do have

smaller standard deviations are P–1 and P–2 (the I–2 index for Hamas is also smaller) which may be an indicator of high levels of agreement within these groups on the conflictual nature of the political universe. The operational codes for al–Qaeda and Hamas were generated from the mean value of statement groups organized chronologically. For the breakdown of statements into those groupings see Appendix Two for al–Qaeda and Appendix Three for Hamas. Since most al–Qaeda statements are attributable to a specific leader, an alternative method of compiling its operational code would have been to use the mean values across those leaders. The resulting values and comparison to the state leader values can be found in Appendix One.

P–1. What is the "essential" nature of political life? Is the political universe essentially one of harmony or conflict? What is the fundamental character of one's political opponents?
Index: % Positive minus % Negative Transitive Other Attributions

The initial expectation for the P–1 index is based on the generalization that terrorist organizations perceive the political universe to be far more conflictual than do state leaders. If the use terrorism is an instrumental choice it is, at least partially, born out of a perception of both a lack of resources to match one's political opponents and the lack of effective alternative strategies, both of which are symptomatic of a political universe hostile to one's strategic aims. Further, the primary targets of Hamas and al–Qaeda (Israel and the US respectively) have both expressed an unwillingness to engage in negotiation with terrorists and have carried out extensive conflictual operations against them. The general international climate, while sometimes sympathetic to the causes of these organizations, has been largely hostile toward groups that have undertaken terrorist actions. These factors are likely to be

accentuated by non–instrumental concerns such as strong in–group pressures limiting the potential identification with "other," and the presence of "vengeful" motivations within the group (Crenshaw, 1981 & 2000; Silke, 2003b).

The counter hypothesis that terrorist organizations will see the world as one that is inherently cooperative and non–hostile finds little to support it. At face value it would seem hard to reconcile a belief in the world as a genuinely cooperative environment, populated by others willing to cooperate, with a need to resort to violence to achieve one's goals. There may be some modification of the extent to which the world is hostile based largely upon access to a supportive population and/or outside support such as by a state or states however these are likely to be incremental changes in the basic belief of these organizations. There may be exceptions to this if groups perceive themselves to have near universal support outside of their targets or if they consider themselves part of some form of overarching international political movement . Although as Rapoport (1998b) makes clear even in these instances there are likely to be competing constituencies of the terrorist organization thus indicating an indeterminate effect on their belief in the hostility of the international scene. Hence there are strong indications that scores on this index will be significantly lower than those obtained by the state leaders.

P–1 Expectation A:

Al–Qaeda and Hamas perceive the universe as extremely hostile, far more so than does the average state leader, therefore, the al–Qaeda and Hamas scores for this index will be significantly lower than the mean state leader value.

The secondary expectation for the P1 index, based on the differences between the organizations, is that al–Qaeda will perceive the political universe as more conflictual than does Hamas. While still exhibiting high levels of social isolation, these pressures on Hamas are significantly lower than they are for al–Qaeda. Hamas has direct contact with a population and other organizations with which Hamas identifies. This is in strong contrast to al–Qaeda. Hamas statements are riddled with references to specific "other" identified actors with which it identifies in particular: members of the intifada, the Palestinian people, and, depending on the context, the Palestinian Authority. In contrast, references by al–Qaeda to "other" identified actors with which it identifies are less specific and concrete, largely limited to Muslims in general or the greater Muslim community (*Umma*). Additionally by nature of its social welfare actions and activity in local political activities, Hamas clearly maintains a closer contact with all levels of the population it claims to represent. This acts as a natural limitation on the level of social isolation the group receives. These factors should translate to a lessened in–group emphasis which is accentuated by the greater differentiation of functions evidenced in Hamas (particularly the division of the military and political arms). Hamas' perception of the international environment is also likely to be colored by its recognition of the various negotiation and settlement plans that address Palestinian issues. These efforts are often the result of cooperative actions within the international community. Although Hamas generally has expressed opposition to them, acknowledgement of their presence is indicative of cooperation within the political universe. In contrast al–Qaeda rarely references cooperative actions within the international community except in the context of multi–lateral conflictual efforts directed at themselves. These factors indicate that Hamas will perceive a significantly more cooperative international environment than will al–Qaeda.[99]

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[99] The recent open conflict between Fatah and Hamas (resulting in decreased popular support)

P–1 Expectation B:

Al–Qaeda perceives the political universe as more conflictual and hostile to its ends than does Hamas, therefore the al–Qaeda score for the P–1 index will be significantly lower than that of Hamas.

Table 4-4 – Values for the P–1 Index (View of the Political Universe)

– Hostile –				*State Leader* **Mean**	– Cooperative –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
-0.11	-0.01	+0.09	+0.18	+0.28	+0.37	+0.47	+0.57	+0.67

Group or Test	Value	Significance Level
State Leader Maximum	+0.58	
State Leader Mean	+0.28	
State Leader Minimum	-0.18	
al–Qaeda Mean	-0.21	0.00
Hamas Mean	-0.02	0.00
al–Qaeda x Hamas		0.00

The P–1a expectation is upheld by these results. The results are also in line with Lazarevska, Sholl, and Young (2006) who found that the terrorist view of the political universe was significantly more conflictual than that of their own sample group of 65 non-terrorist political leaders. The mean value of the P–1 index for al–Qaeda is more than two standard deviations lower than the state leader mean. The difference is strongly significant and in the direction expected. In fact, the mean value obtained for al–Qaeda is noticeably lower than the minimum value obtained from state leaders. This is clearly in line with expectations that al–Qaeda views the world in a fundamentally different light than other international actors. In the case of Hamas the mean value for the P–1 index is also lower than the state leader mean,

as well as Western response to the 2006 electoral outcome (refusal to accept Hamas as a political representative and the engagement in the lifting of aid) may well have heightened the perception of a conflictual political environment. This indicates the potential for a future examination of Hamas belief systems for experiential learning behavior over this period.

although to a lesser degree than that of al–Qaeda. The difference is again strongly significant and in the direction expected. While both al–Qaeda and Hamas exhibit a world view distinct from state leaders, the difference between their P–1 values is significant as well. The al–Qaeda score, as expected, is lower than that of Hamas thus supporting the P–1b expectation and indicating that the greater degree of social embeddedness of Hamas may well have a ameliorating influence on its perception of the political universe.

Interpretation of this index has generally relied upon the assumption that "other" and "opponent" are synonymous and thus its values may be thrown off by the presence of significant allied "other" references. Removal of those references however could only push this index toward a more conflictual value. Given the strongly significant non-cooperative values for both al-Qaeda and Hamas, this is a non issue as any kind of correction for allied "other" references would only serve to accentuate the difference between these groups and the state leaders.

P–2. What do actors within the political universe perceive as being the most effective means of pursuing their intended goals? How intensely do actors within the political universe pursue their goals.

Index: Mean Intensity of Transitive Other Attributions divided by 3

P–2 Expectation A:

Al–Qaeda and Hamas perceive other political actors as emphasizing conflictual tactics to higher degree than does the average state leader, therefore, the al–Qaeda and Hamas scores for this index will be significantly lower than the mean state leader value.

P–2 Expectation B:

Al–Qaeda perceives the political universe as a realm in which conflictual strategies are pursued more intensely than does Hamas, therefore the al–Qaeda score for the P–2 index will be significantly lower than that of Hamas.

Much of the same logic that applies to the P–1 index is appropriate for the P–2 index and as such, expectations for their values are similar. However since the undertaking of terrorist actions carries significant risk there is a presumption that the tactical choice of those actions must be the result of significant belief in their necessity, hence an expectation that the "other" within the political universe is not only pursuing their goals in a non–cooperative manner but that they are pursuing these goals with an intensity which forces the hand of the "self" into emphasizing conflict actions. An instrumentally motivated organization that perceives itself as being forced into a pattern of tactically hostile actions must necessarily believe that the options for cooperation within the international sphere are limited. Even if the political universe was perceived as non–cooperative, if the other actors within that environment were judicious (not intense) in the pursuit of their strategic goals this would leave open tactically cooperative options. In contrast if the organization perceives a hostile political universe in which actors intensely pursue their own goals, this necessarily limits the scope of actions available to the organization as well. Consequently since this index is a measure of the perceived strategic intensity of "other" it should be particularly demonstrative of the organization's belief that its use of terrorism results from a lack of available alternatives.

The terrorist's increased potential for perception of an opposition wedded to conflictual action also finds support from various theories of psychological motivation. Shaw's "personal

pathway model" (1986) emphasizes the importance of experience with hostile actions against the individual or their identified sub–group. Sprinzak's "cognitive transformation" process (1990 & 1995) relies upon the blockage by others of cooperative efforts to achieve political change. Additionally Post (1990) has argued that the "psycho–logic" which drives individuals to commit terrorism may result in negative stereotyping of others, which is likely to be exacerbated by the "groupthink" effects common to terrorist decision–making. In extreme cases this can take the form of dehumanization or demonization of those outside of one's in–group. The attribution of an inability to apply political behaviors other than conflict actions certainly would qualify as an aspect of this negative stereotyping and may be exaggerated by the need for justification of terrorist actions.

The issue of action justification is particularly relevant for statements from al–Qaeda which spends a great deal of time on the issue of justifying their actions. Al–Qaeda actions that have met criticism as being proscribed by Islam are aggressively defended in several manners. The first is to indicate situations in which these actions are no longer proscribed because of actions taken by those in opposition to the faithful. Reference to conflict actions (as opposed to words) on the part of "other" therefore serve to justify the actions taken by al–Qaeda. This holds true even for al–Qaeda reference to "other" actors that are supportive of al–Qaeda. Actions taken by the Ummah are inherently justified according to the haddith which states "My community will never agree upon an error." Similarly actions directly attributed to Allah or his representatives are likewise inherently justified.

The issue of action justification is less pronounced in Hamas statements although there is still a trend of emphasizing the violence of the actions of the "other", particularly Israeli actions

but occasionally those of the Palestinian Authority as well. Since Hamas finds itself in the situation of having to compete for a constituency (the Palestinian population) there is the reasonable expectation of a need to accentuate the differences between itself and other competing organizations. A common method of doing so is the demonization of others which tends to exaggerate the base qualities of the "other" hence the presumption that "other" will be intensely hostile and not amenable to cooperation. However the extent to which this is played out may be limited by the necessity of addressing the various forms of cooperation that have occurred surrounding Hamas' primary area of concern. The referencing of agreements negotiated by the Palestinian Authority in particular is featured prominently in Hamas writings. Similar kinds of references are all but completely lacking in al–Qaeda statements. Hence while we would expect the values for both al–Qaeda and Hamas to be significantly lower than those of the state leaders it is also reasonable to predict that there will be a significant difference in the intensity of other actions perceived by these two organizations.

As with the P–1 index, the greater degree of social embeddedness of Hamas is likely to moderate the perception of a political universe in which actors rely almost exclusively upon conflict actions to achieve their aims. Al–Qaeda's perception of involvement in a global *jihad*, the struggle of Islam against a united foe seeking its destruction, contrasts strongly with the more limited nationalist perceptions of Hamas and should push the al–Qaeda index toward a more extreme value. Additionally, most of the time period covered by this study is after the US invasion of Afghanistan. It is a likely, although untested, proposition that the intensity of the US response to 9/11 would serve to accentuate the perception of an emphasis on the conflictual deed tactical options utilized in the political universe. This perception is

likely to have been reiterated by the US invasion of Iraq. In contrast, no such catalyzing

events are apparent during the same time period for Hamas. Israeli actions during this period

were not outside of what one might consider to be the normal parameters perceived by

Hamas. The P–2 value for Hamas is therefore expected to be less extreme than that of

al–Qaeda.

Table 4-5 – Values for the P–2 Index (View of the Political Universe)

– Hostile –				*State Leader* **Mean**	– Cooperative –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
-0.16	-0.09	-0.01	+0.06	+0.13	+0.21	+0.28	+0.36	+0.43

Group or Test	Value	Significance Level
State Leader Maximum	+0.36	
State Leader Mean	+0.13	
State Leader Minimum	-0.18	
al–Qaeda Mean	-0.25	0.00
Hamas Mean	-0.10	0.00
al–Qaeda x Hamas		0.00

The P–2a expectation is supported by the results of the t–tests between the two groups and

the state leaders. The P–2 values for both al–Qaeda and Hamas are significantly lower than

the state leader mean thus indicating that these groups perceive others within the political

universe as driven toward hostile actions as the primary means of achieving their political

ends. The intensity of this belief is profound as indicated by the fact that the Hamas value

approaches the minimum value recorded for a state leader and the al–Qaeda value exceeds it.

Also as expected, the values obtained from comparison of the Hamas and al–Qaeda scores

differ significantly from each other with the al–Qaeda value being the more extreme of the

two thereby meeting the P–2b expectation as well.

Taken together the values obtained from the P–1 and P–2 indices paint a picture of a perception of a hostile, violent world where both goals and the means to achieve those goals are pursued with little regard for cooperation except for limited, verbal expressions of approval. True cooperation within this world would be an exception to the rule and behavior would reflect the anarchic self–help system of classic Realism. Placed within such a world, with little resources at hand, one might well expect "Self" to perceive violent action as the only appropriate response. These beliefs are echoed by academic presumptions of instrumental terrorist motivation: lack of expectation for cooperation in achievement of goals, and the perception of a need for or the appropriateness of violence as a tactic. However the views of these organizations are clearly not identical. In both instances the scores for al–Qaeda are significantly more indicative of hostility in the political universe than are the scores of Hamas. While the implications of this are unclear it is important to note that even at this early stage of inquiry there are notable differences between the belief structures of these organizations even in an area deemed fundamental to their characterization as terrorist organizations. What is clear is that the extreme values for these indices has significant implications for counter–terrorism strategies. Actions of others when viewed through the framing effects of these beliefs are likely to result in interpretation of those actions as conflictual regardless of their original intent. Similarly cooperative words and actions on the part of "other" are more likely to be interpreted as of little value or consequence.

P–3. Is the political future predictable? In what sense and to what extent?

Index: 1 – Index of Qualitative Variation for Other Attributions[100]

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[100] "The Index of Qualitative Variation is a ratio of the number of different pairs of observations in a distribution to the maximum possible number of different pairs for a distribution with the same N [number of cases] and the same number of variable classifications." (Watson and McGraw 1980).

P–3 Expectation A:

Al–Qaeda and Hamas perceive the political behavior of others to be less varied and therefore more predictable than do state leaders, therefore, the al–Qaeda and Hamas scores for this index will be significantly higher than the mean state leader value.

P–3 Expectation B:

The less deterministic nature of Hamas ideology and its more diversified perception of the political universe results in less relative predictability, therefore the al–Qaeda score for the P–3 index will be significantly higher than that of Hamas.

The more unpredictable the political actions of others, the greater the variation in other–attributions among different types of cooperative or hostile acts. If one believes that most acts by others fall into the same category, then predictability is extremely high. To terrorist entities the political future should be highly predictable therefore, due to their perceptions of an opposition that employs only a limited set of responses. This is augmented by the framing effects of having a belief structure that is strongly influential upon decision–making processes, as is presumed to be the case with terrorist entities (Crenshaw, 1986, 1988, 1990a; Hoffman, 1998; Post, 1990). This manifests itself in the interpretation of outside events in terms that are readily placed within the already existing belief structure. Essentially framing effects cause actions to be given a subjective interpretation in line with expected behaviors. For organizations displaying extremely high expectations of conflictual behaviors, as indicated by their extreme P–1 and P–2 scores, cooperation that can be interpreted as conflict is likely to be framed as such.

High levels of predictability may also result from a perception of tactical inflexibility of one's political opposition. Negative stereotyping as a result of groupthink, can manifest as perceptions of opponents as inferior thinkers, with less cognitive complexity and therefore as less capable of effective tactic switching.[101] If terrorist decision–making processes are unusually susceptible to groupthink effects as is argued by many (Crenshaw, 1986; Hudson, 2002; McCormick, 2003, Post, 1990; et al.), predictability within the political universe for these actors should be high. These factors indicate that the al–Qaeda and Hamas values for this index are likely to be higher than those obtained from state leaders. While individual state leaders may be influenced by a particularly deterministic ideology, this is almost certainly not a universally shared trait amongst them. One would therefore expect a greater diversity in the values obtained from state leaders and a correspondingly lower average predictability score.

Predictability of the political future is likely to be further enhanced by the religious nature of both organizations although to different extents. In the case of al–Qaeda, opponent actions are portrayed as a long pattern of historic opposition to Islam and that their actions are driven by violent opposition to God's will. The actions of allied others are portrayed in a manner indicative of predictability as well. They are guided by God's will or, at least, are informed by specific historic religious interpretations and are thereby knowable. While the Hamas statements share some of these same elements their prevalence is far less pronounced. While no formal calculation was undertaken, the significantly more frequent usage of phrases such as "If Allah wills it…" within al-Qaeda statements was readily apparent. There are fewer

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[101] Janis (1982, pp. 174-175) describes one of his eight symptoms of groupthink as "stereotyped views of the opposition as too evil to genuinely negotiate, and too weak and stupid to respond."

portrayals of non–allied other actions as part of a specific pattern of historic events, although such references are still present. Likewise, allied other actions are less likely to be described as being informed by God's will or teachings. The mere presence of these factors likely serves to drive up the perceived predictability of other actions. The difference in extent to which they are expressed however, indicates that a higher predictability score for al–Qaeda is likely.

Additionally, as noted previously the "other" category is not solely composed of those in opposition. Hence, it is important to take note of the expectations regarding the non–opposition "other". In the case of al–Qaeda the perception of political "other" is more strongly identified with political opposition than it is for Hamas. While both entities are influenced by strong communal identities that likely reinforce perceptions of a Manichean world, the pan–Islamic emphasis of al–Qaeda doctrine implies a limited recognition of allied others. In contrast, Hamas' relatively greater acknowledgement of allied others implies an expectation of greater diversity of tactics within the political universe.

Table 4-6 – Values for the P–3 Index (Predictability of Actions of Others)

– Unpredictable –				*State Leader* **Mean**	– Predictable –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
+0.05	+0.06	+0.07	+0.08	+0.09	+0.10	+0.12	+0.13	+0.14

Group or Test	Value	Significance Level
State Leader Maximum	+0.14	
State Leader Mean	+0.09	
State Leader Minimum	+0.05	
al–Qaeda Mean	+0.13	0.00
Hamas Mean	+0.10	0.11
al–Qaeda x Hamas		0.05

Again both expectations are supported by index scores for Hamas and al–Qaeda. The mean value obtained for al–Qaeda differs significantly in the expected direction at the 0.01 level and approaches the maximum value obtained from the state leaders. The mean value obtained for Hamas, also in the indicated direction, differs significantly at the 0.11 level from the state leader mean. Comparison of the al–Qaeda and Hamas scores to each other indicates a perception of a more predictable political universe for al–Qaeda, significant at the 0.05 level and may very well reflect Hamas' more nuanced vision of the role played by "other" within the international system as indicated in the discussion above. The high levels for this index for both organizations can be interpreted as an instrumental answer to why organizations are willing to undertake terrorist actions by explaining, to a degree, their confidence in the face of high resource disparities. In effect their ability to foresee the future and in particular the actions of their opposition may be perceived by themselves as a kind of force multiplier in much the same way as battlefield intelligence assets do in a conventional military sense.

P–4. How much "control" or "mastery" can one have over historical development? What is one's role in "moving" and "shaping" history in the desired direction?

Index: Self Attributions Divided by [Self + Other Attributions]

Evidence for the expected values of the P–4 index, as indicated below, is mixed and accordingly is presented as pairs of competing expectations.

P–4 Expectation A:

Because of their belief in their eventual success and their influential role in bringing about that success al–Qaeda and Hamas should attribute the primary locus of control within the

international system to themselves, therefore, the al–Qaeda and Hamas scores for this index will be significantly higher than the state leader mean value.

All terrorist organizations believe in the ultimate inevitability of their victory (Hoffman, 1998, p. 169). Regardless of the resource disparity or any absence of popular support, the organization believes not only that it will triumph but also that its members are the catalysts for change and that their operations are necessary to the eventual achievement of success (Hoffman, 1998, pp. 160-161). A high level of control by "self" should directly translate to optimism in the reaching of their goals, the converse is equally valid. These factors should correlate to a very high level of perceived mastery over history and a value at the high end of the state leader scale.

P–4 Expectation B

Hamas and al–Qaeda, by recognizing their limited resource base and the presence of powerful external actors will attribute the primary locus of control externally, therefore, the al–Qaeda and Hamas scores for this index will be significantly lower than the state leader mean value.

The alternative expectation (B) is presented because of the extreme resource disparity between the terrorist organizations and their opposition, recognition of which could lead to a perception of a low level of historical mastery on the part of Hamas and al–Qaeda. This may well be exacerbated by the religious belief in the deterministic nature of the universe. While stronger in al–Qaeda both organizations core Islamic values include the belief that historical events are controlled by the will of God, thus indicating an exterior locus of control. The

alternative expectation also finds empirical support in the Lazarevska, Sholl, and Young study (2006, pp. 176-177) which indicated significantly lower values for terrorists in the LTA traits of *self–confidence* (0.00 significance) and *control over events* (0.02 significance). They also indicated in their study the likelihood that the low level of *control over events* may influence the motivational choice to use terrorism. "These leaders are likely to believe that there is little to be done to influence what happens and that only extreme strategies will be effective." (Lazarevska, Sholl, and Young, 2006, p. 177).

P–4 Expectation C:

Al–Qaeda's more pronounced perception of themselves as the vanguard element of their cause should result in a stronger internal locus of control attribution, therefore the al–Qaeda score for the P–4 index will be significantly higher than that of Hamas.

P–4 Expectation D

The less deterministic religious beliefs of Hamas, will result in a lower external attribution of the locus of control to God, therefore, the Hamas score for the P–4 index will be significantly higher than that of al–Qaeda.

While language referring to themselves as leading elements of a greater cause are common to both al–Qaeda and Hamas, as indicated in chapter one, it is a core element of the beliefs of al–Qaeda particularly in its militant version as articulated by Azzam. This element is significantly less pronounced within Hamas (Abu–Amr, 1993, p. 9). Hamas is also engaged in a competition for the Palestinian constituency thereby lowering their perception of themselves as the sole or primary locus of control. The alternative expectation (D) rests upon

the lower frequency of allusions to God's will found in the Hamas statements (mentioned previously in the discussion of the P-3b expectation) and the assumption that this indicates a less deterministic view of historical events. The general tone of al–Qaeda statements seems to reflect that the outcome of events is predestined, determined by the will of Allah. The assumption therefore is that the locus of control resides with Allah and not with the organization even if that organization is presumed to be carrying out the wishes of Allah. A primary difference between them seems to be in the portrayal of the divine as an actor in its own right in the al–Qaeda writings while Hamas portrays itself as the actor which is aided or inspired by the divine. This relatively higher reliance upon the external locus of control in God should result in a correspondingly lower value for the P–4 index for al–Qaeda. Unfortunately this creates a divergence between the locus of control and degree of optimism interpretations of this index. The references to the inevitability of God's will drives down the internal locus of control effects while simultaneously increasing the organization's perceived level of optimism, thus pushing in opposite directions on this index. This argues in favor of the previously discussed re–organization of the "self" and "other" categories to include allied and non–allied actors respectfully.

Table 4-7 – Values for the P–4 Index (Level of Control over Political Future)

– Low Level of Control –				*State Leader* **Mean**	– High Level of Control –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
+0.08	+0.11	+0.14	+0.18	+0.21	+0.25	+0.28	+0.31	+0.35

Group or Test	Value	Significance Level
State Leader Maximum	+0.34	
State Leader Mean	+0.21	
State Leader Minimum	+0.07	
al–Qaeda Mean	+0.16	0.01
Hamas Mean	+0.23	0.29
al–Qaeda x Hamas		0.00

Neither of the P–4a or P–4b expectations is supported by the results of the operational code analysis. The value obtained for al–Qaeda is significantly lower that that of the state leader mean: indicative of support in the direction of the P–4b expectation. It may also be the case that the low score for al-Qaeda is explained by the previously mentioned methodological issue of systematic under-counting of self references. However, the value obtained for Hamas, is higher than that of the state leader mean, although it does not differ significantly from that value. Comparison of the values for al–Qaeda and Hamas indicates significant difference in the direction supporting the alternative P–4d expectation. Despite the results of the Lazarevska, Sholl, and Young study (2006) it would seem that the mastery of political events is highly dependent upon the specific characteristics of the terrorist group being studied and is not a trait that is generalizable to the larger population. The al–Qaeda and Hamas scores may reflect more significantly on the state leader mean than on the values obtained for these groups. There is little doubt that inevitability of victory is reflected strongly in the writings of both Hamas and al–Qaeda. However, since one can reasonably expect that individuals driven to achieve state leadership would not be so driven if they labored under the belief that their presence made little difference in the "shaping" of history, it is likely that this trait is strongly present in state leaders as well and that the variations seen between these groups are merely matters of degree.

P–5. What is the role of "chance" in human affairs and in historical development?

Index: 1 – [Political Future (P–3) x Historical Development Index (P–4)]

There is little in the way of independent terrorist research that would directly inform generalizable predictions regarding their beliefs on the role of chance. Expectations of a high

degree of self–mastery of events coupled with high levels of opposition predictability should provide for a low influence of "chance." Likewise, the religious determinism specifically present for both al–Qaeda and Hamas would seem to argue against the potential for a high degree of chance in the resolution of political outcomes. Unfortunately this cannot be tested with this index for methodological reasons. The P–5 index is derived by combining the P–3 and P–4 indices and as a consequence is subject to the undercounting of self attributions that influenced the al–Qaeda value for P–3 as well as the religious determinism effects present in the P–4 index. As was indicated in the P–4 discussion, religious determinism was assumed to be correlated with a high external locus of control: political mastery resting with the divine either directly or indirectly, through assistance to the group, and not with the group itself. This assumption was supported by al–Qaeda's P–4 value which was significantly lower than that of Hamas and thus indicative of a stronger external locus of control reflecting their greater degree of religious determinism. However, a low P–4 value is necessarily linked to a high role of "chance" because of the way this index is calculated. This could have been avoided had the decision been made to include divine references as part of self attributed verbs, and accordingly indicates a compelling case for their inclusion in future research. Best practices would be to calculate two sets of indices, one that includes divine references as self and the other which does not. It is also worth noting that the inclusion of divine references as self will drive the already high predictability index (P-3) of al-Qaeda toward a more extreme value which would, in turn, result in a lower role of chance (P-5) index. Doing so would allow for interpretation of the P–5 index in a manner that could distinguish between the factors of "chance" and divine determinism.

It is still possible however to intuit answers to George's fifth philosophical question by interpretation of the P–3 and P–4 question. If, as was presumed with those indices, the low level of self mastery over events is at least party due to high levels of divine determinism, then expectations would be for an extremely low role of chance in the international system.

Table 4-8 – Values for the P–5 Index (Role of Chance)

– Low Role of Chance –				*State Leader* **Mean**		– High Role of Chance –		
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
+0.96	+0.965	+0.97	+0.975	+0.98	+0.985	+0.99	+0.995	+1.00

Group or Test	Value	Significance Level
State Leader Maximum	+0.99	
State Leader Mean	+0.98	
State Leader Minimum	+0.96	
al–Qaeda Mean	+0.98	0.93
Hamas Mean	+0.97	0.04
al–Qaeda x Hamas		0.13

Events within that system are controlled by a knowable divine influence and opposition actions are highly predictable, leaving little room for the influence of randomness. Both groups would be expected to ascribe a lower role to chance than would state leaders, chance playing a relatively lesser role for al–Qaeda than for Hamas. Unfortunately, for the reasons cited above this cannot be tested via the quantitative results of the P–5 index. The index values and results of the t–tests are presented for the sake of completeness. The greater confidence in the accuracy of the P-3 index and the lower relative level of religious determinism for Hamas make it likely that the value obtained for that organization can be reasonably compared to the state leader mean value in which case the expectation of a lower

role of chance is supported by the Hamas value which is lower than the state leader mean and significant at the 0.04 level.

General Conclusions Regarding the Philosophical Indices

For both Hamas and al–Qaeda the philosophical indices indicate belief structures that differ significantly from the group of state leaders with regard to the primary indices of P–1, P–2 and P–3. They do so similarly in the directions indicated by prior research into terrorist organizations. Al–Qaeda and Hamas perceive the political universe as significantly more conflictual than does the average state leader. They believe, to a higher degree than state leaders, that other actors in the system primarily rely upon conflictual actions to accomplish their goals. Both organizations also differ significantly from state leaders in the extent to which the actions of others are predictable.

This is not to say that their operational codes are identical to each other on the philosophical indices. In each index the scores differ significantly between the two organizations. However these differences are largely a matter of degree of difference from the state leader scores and lie within the predictions based on the known differences between the two organizations. This is consistent with the results from Lazarevska, Sholl, and Young (2006) which indicated significant belief system differences between terrorist and non–terrorist leaders.

Graph 4-9 – Philosophical Index Summary Results
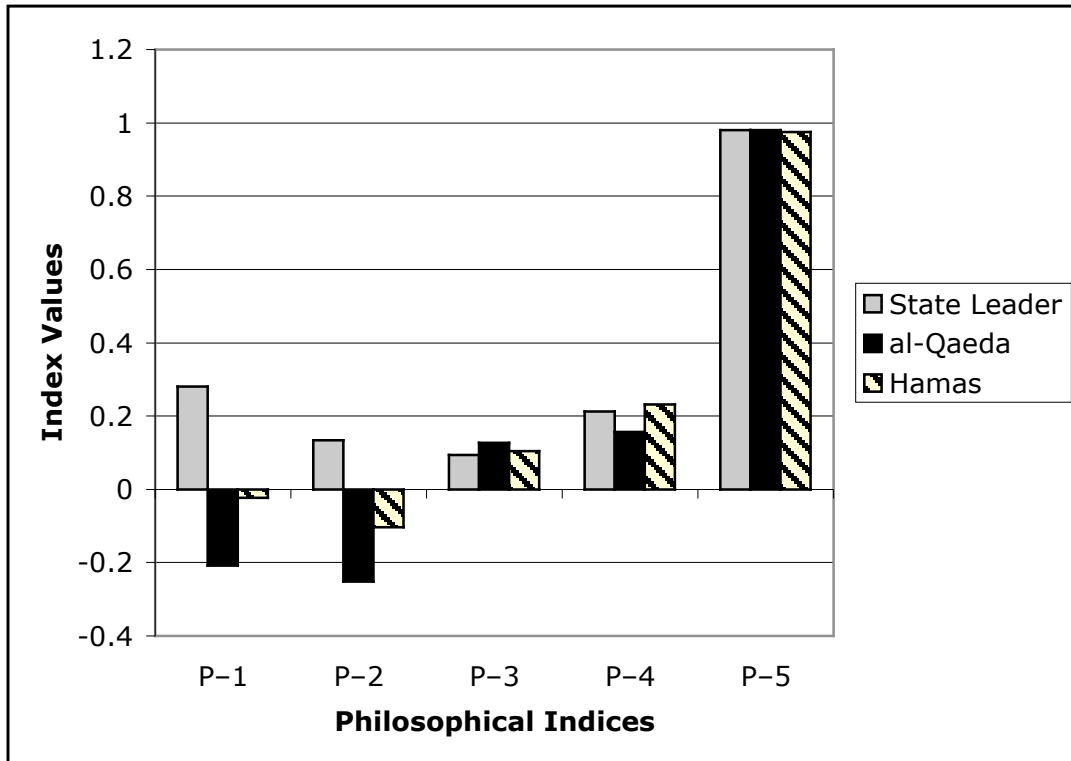
Instrumental Beliefs of the Operational Code

I–1. What is the best approach for selecting goals or objectives for political action?

Index: % Positive minus % Negative Transitive Self Attributions

(+1= high cooperation to –1=high conflict)

That terrorist actors are routinely engaged in the use of force or, at least, the threat of the use of force, is axiomatic. This is the primary characteristic appearing in definitions of terrorism (Schmid & Jongman, 1988, pp. 5-6; Jenkins, 1980, pp. 2-3). Instrumental explanations for the use of terrorism rely upon the presumption that terrorists believe in the efficacy of conflict for the achievement of their political objectives (Fleming 1980; Garrison, 2004; Gurr, 1988). To the degree that this represents their primary means of achieving their strategic goals, a

strategic vision highly indicative of conflict is predicted. Non–instrumental explanations of terrorist motivation still emphasize the expressive need for the use of violence (Crenshaw, 1986; Post, 1990), and/or the means by which the use of violence becomes acceptable (Crenshaw, 1986; Pearlstein, 1991; Post, 1990; Sprinzak, 1990; et al.). Since state leaders are unlikely to have similar motivational elements, except on a case by case basis, terrorist values for this index are presumed to be significantly lower than the state leader mean. The I-1 index is also the second of the operational code indices utilized by Lazarevska, Sholl, and Young (2006). Their results, in line with this expectation, indicated strongly more conflict oriented strategic beliefs for terrorists than for non-terrorists.

I–1 Expectation A:

Al–Qaeda and Hamas perceive the optimal means of goal achievement to be through the use of conflict, far more so than does the average state leader, therefore, the al–Qaeda and Hamas scores for this index will be significantly lower than the mean state leader value.

With regard to differences between al–Qaeda and Hamas there is significant reason to believe that the value for Hamas will be more moderate. This moderation is a by product of the social embeddedness of the organization and its demonstrated capability and willingness to carry out cooperative actions even with other actors that are, at times, perceived as the opposition (such as the Palestinian Authority). As indicated in chapter one, Hamas has also demonstrated the use of ceasefires as part of its operational strategy, linking its own continuation of conflict to the absence of conflict behaviors of its opposition. The need for Hamas to compete with other actors for support from the Palestinian constituency also logically has a moderating influence on this index, so as to not alienate that constituency. The absence of the use of

violence as a primary attribute of its "vanguard" position in the re–establishment of Palestine also argues in favor of a more moderate strategic emphasis on hostile action. Al–Qaeda does not require high levels of popular support for its operations and, in all likelihood, it is assisted in recruitment from its primary constituency (radical Islamists) by high levels of violent action, and consequently exhibits no such moderating influences.

I–1 Expectation B:

Al–Qaeda perceives greater benefit from conflictual strategies than does Hamas, therefore the al–Qaeda score for the P–1 index will be significantly lower than that of Hamas.

Table 4-10 – Values for the I–1 Index (Optimal Strategic Approach to Goals)

– Conflictual –				*State Leader* **Mean**	– Cooperative –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
-0.06	+0.05	+0.16	+0.27	+0.39	+0.50	+0.61	+0.73	+0.84

Group or Test	Value	Significance Level
State Leader Maximum	+0.80	
State Leader Mean	+0.39	
State Leader Minimum	-0.29	
al–Qaeda Mean	+0.10	0.01
Hamas Mean	+0.32	0.23
al–Qaeda x Hamas		0.05

The values for both Hamas and al–Qaeda are in the expected direction, indicating an emphasis on the use of conflict strategies for achieving ends. However only the al–Qaeda value differs significantly and neither approach the minimum value obtained for state leaders. The minimum single statement value measured for al–Qaeda is –0.71 and the minimum such value measured for Hamas is –0.33. By comparison, the lowest single statement score for

state leaders is –0.60. Al–Qaeda clearly fits the presumptions for a terrorist organization while Hamas is clearly within the bounds of state leader values.

A particularly low value for this index may also indicate an organization that has a degree of expressive motivation for the use of violent action. This is not to say that a low I–1 value necessarily implies such a motivation but that it would be extremely unlikely to find an expressively violent organization that did not have an I–1 score indicating that the "best approach for selecting goals or objectives for political action" was through conflictual actions. Therefore, an I–1 score significantly lower than that of the state leader mean is a necessary condition for a group strategically motivated toward the use of violence. Only al–Qaeda's I–1 score is indicative of the possibility of this form of motivation.

I–2. How are the goals of action pursued most effectively?

Index: Mean Intensity of Transitive Self Attributions divided by 3

While it is axiomatic that the defining of a group as "terrorist" implies the group's reliance upon conflict as its primary means for pursuit of their objectives, this does not indicate the intensity with which conflict actions are prosecuted. Presumably terrorist groups attach a higher efficacy to the threat and use of violence than do other international actors. This would argue for an extreme emphasis on the tactics of conflict. However, prior to the advent of "new terrorism" there were generally perceived to be limits on the utility of conflictual actions. Hoffman (1998, pp. 163-164) makes the point that "there is nonetheless a clear appreciation both that violence has its limits and that, if used properly, it can pay vast dividends. In other words, the level of violence must be kept within the bounds of what the

terrorists' 'target audience' will accept." Laqueur (2003) in discussing "new" terrorism, has indicated that traditional limitations on the level of violence employed in terrorist actions are quickly fading. Modern terrorist organizations have less concrete aims and therefore also less firmly defined 'target audiences.' Their actions therefore can be less discriminate. In effect Jenkin's (1975) prohibition that "terrorists want a lot of people watching…and not a lot of people dead" no longer applies to today's terrorist entities. Extreme values lower than the state leader mean for this index may lend credence to the more recent interpretation that modern terrorist organizations are largely unbound by previous constraints. Such values would also reinforce the presumption of an organization expressively motivated toward the use of violence, as the closer the I–2 index comes to its minimum value the less variation outside of conflictual actions is expected. The prediction for this index is that both al–Qaeda and Hamas should demonstrate values below the state leader mean, but that Hamas, because of its closer social contact and active need to keep from alienating their target audience will have a significantly higher score than that obtained for al–Qaeda. The level of violence employed in the tactics of each also argues for a significant belief difference. Violent actions on the part of Hamas tend to be more limited in both scale and targeting than those of al–Qaeda.

I–2 Expectation A:

Primary tactical reliance on the threat and use of violence for Al–Qaeda and Hamas indicate that al–Qaeda and Hamas scores for this index will be significantly lower than the mean state leader value.

I–2 Expectation B:

Al–Qaeda has less moderating influences upon its use of violence than does Hamas, therefore the al–Qaeda score for the P–1 index will be significantly lower than that of Hamas.

Table 4-11 – Values for the I–2 Index (Optimal Tactical Approach to Goals)

				State Leader **Mean**				
– Conflictual –						– Cooperative –		
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
-0.15	-0.08	+0.00	+0.07	+0.15	+0.22	+0.30	+0.38	+0.45

Group or Test	Value	Significance Level
State Leader Maximum	+0.43	
State Leader Mean	+0.15	
State Leader Minimum	-0.30	
al–Qaeda Mean	-0.07	0.00
Hamas Mean	+0.07	0.03
al–Qaeda x Hamas		0.04

Al–Qaeda's response to a perceived hostile political universe on both the tactical and strategic levels appears in line with expectations of a distinct emphasis on conflict laden words and deeds. The –0.07 value differs significantly in the anticipated direction, indicative of a strong preference for conflict. Later indices show this to be more pronounced with an high emphasis on deeds while cooperative actions are largely limited to words. This also lends support to the contention that al–Qaeda experiences a degree of expressive motivation toward the use of violence. Also in line with expectations is the Hamas score of 0.07 which differs significantly at the 0.03 level from that of the state leaders. Both organizations share largely similar views of the political universe and react in similar fashions. However, as predicted, the score for Hamas is less extreme than that of al–Qaeda, differing from the score of that organization at the 0.04 significance level. Note however that neither score approaches the minimum value obtained from state leaders. Thus, while the beliefs of Hamas and

al–Qaeda, with regard to intensity with which one should employ conflictual activities, differ significantly from that of the average state leader, these same beliefs are not outside the parameters of the most extreme of those leaders.

I–3. How are the risks of political action calculated, controlled, and accepted?

Index: 1 minus Index of Qualitative Variation for Self Attributions

(1.0 risk acceptant to 0.0 risk averse)

Engagement in terrorist actions, even simple involvement or affiliation with such an organization, entails great risk (Crenshaw 1986, 1988, 1990a, Hoffman 1998). Further both organizations have experienced significant losses in response to their actions, yet have continued to engage in these same behaviors. It is reasonable to presume therefore that the belief structure of a terrorist organization would display a high degree of risk acceptance. This factor is likely to be exacerbated by the propensity for terrorist groups to operate under conditions conducive to the "risky shift" produced as a result of groupthink. Values for the I–3 index of Hamas and al–Qaeda are predicted to be significantly higher than the state leader mean.

I–3 Expectation A:

The willingness to engage in highly dangerous behaviors against vastly more powerful opposition suggest a high degree of risk acceptance for al–Qaeda and Hamas and therefore, indicate that al–Qaeda and Hamas scores for this index will be significantly higher than the mean state leader value.

More extreme values would be likely in the case of groups displaying the characteristics of extreme in–group identification and external isolation that are associated with higher propensities for groupthink behaviors. Additionally the types of operations preferred by al–Qaeda, entailing higher levels of expertise and coordination, imply a greater willingness to accept risk in the pursuit of inflicting catastrophic damage. Of Hamas and al–Qaeda, it is the latter which more clearly demonstrates these characteristics.

I–3 Expectation B:

Al–Qaeda's greater social isolation and presumed stronger collective identity will exacerbate tendencies toward the acceptance of high risk behaviors, therefore, the al–Qaeda score for the P–1 index will be significantly higher than that of Hamas.

Some limitation on the level of organizational risk is anticipated based on operational and structural characteristics that indicate deliberate attempts to limit risk levels. These indicators would include, but are not limited to, the use of non-leadership members for operational actions, and dispersed cell structures for both groups, as well as Hamas' deliberate obfuscation of internal leadership roles and identity concealment for Qassam Brigade members. However it is unlikely that these indicate anything more than a means of limiting the high level of risk already accepted. Significantly lower than expected values would require reconsideration of this conventional belief about terrorist organizations.

Table 4-12 – Values for the I–3 Index (Risk Acceptance)

– Risk Adverse –				*State Leader* **Mean**	– Risk Acceptant –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
0.01	0.05	+0.10	+0.14	+0.19	+0.24	+0.28	+0.33	+0.37

Group or Test	Value	Significance Level
State Leader Maximum	+0.40	
State Leader Mean	+0.19	
State Leader Minimum	+0.04	
al–Qaeda Mean	+0.24	0.20
Hamas Mean	+0.28	0.00
al–Qaeda x Hamas		0.29

Evidence indicative of the I–3A expectation is inconclusive. Both al–Qaeda and Hamas values for the index are indicative of higher risk acceptance levels than those of state leaders. However only Hamas' is strongly significant. The value for al–Qaeda is not really significant at only a 0.20 level. The lack of significant difference between the two scores however does seem to suggest that a heightened degree of risk acceptance is a shared trait. However, the level of this acceptance may not be as great as presumed. One explanation for this may be that while engagement in terrorist activities is inherently risk acceptant, those organizations which are successful (as demonstrated by their long term survival) are likely to be those with a greater understanding of the risks faced and a belief in the need to moderate that risk. It may also be reflecting a balancing of risk acceptant behaviors at the strategic level (the decision to engage in terrorism) and tactically risk adverse behaviors (rarely occurring violent actions that target relatively safe or easy assets). The lack of significant difference between the two groups seems to suggest that their different behavioral patterns are merely different ways of balancing the tactical and strategic risks faced by each organization.

I–4a. What is the best "timing" of action to advance one's interest?

Index:1 minus Absolute Value [%Cooperative - %Conflictual Self Attributions]

As noted in the I–2 index the reliance on violent actions as the primary tactical option is axiomatic for a terrorist organization. This expectation is further supported by factors that make violence escalation likely. Hoffman (1998, pp. 176-177) indicated that terrorists may become locked into a spiral of escalation through attempts to keep media attention focused upon themselves whether this is for the purpose of simple self–gratification, the perceived need to continually compete against other actors for media attention, or simply to overcome their perception that the media and public in general have become inured to previous levels of violence. Obviously if an organization is continually attempting to "ratchet up" the intensity of its conflictual actions this will limit its ability to shift between actions of a conflictual and cooperative nature. Further, both al–Qaeda and Hamas can be readily characterized as rejectionist. Al–Qaeda's Manichean world view prevents the potential for cooperative solution between it and its opposition. The willingness of Hamas to engage in tactical ceasefires (*hudna*) not withstanding,[102] Hamas' outright rejection of the right of Israel to exist is equally indicative of the unwillingness to engage in a cooperative solutions.[103] An initial prediction of values significantly lower than the state leaders is correspondingly appropriate.

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[102] Even the long term (10 year *hudna*) proposed by Rantissi in January of 2004 came with the caveat that "Hamas will not accept the relinquishment of an inch of Palestine. Therefore, there will be no recognition of the so–called state of Israel and there will be no end to the conflict." (BBC Worldwide Monitoring, 2004).

[103] As noted in chapter one, Khaled Meshaal's January 2007 pronouncement of Hamas' willingness to recognize Israel may be indicative of a shift in this position. However, this potential shift is outside of the chronologic bounds of this study and Hamas' characterization as rejectionist over the time period studied is valid.

I–4a (Cooperation/Conflict) Expectation A

The primary reliance of Al–Qaeda and Hamas on conflict implies a low tactical flexibility between cooperation and conflict options, therefore, the al–Qaeda and Hamas scores for this index will be significantly lower than the mean state leader value.

However, the degree of flexibility is likely to be heightened for organizations that are highly socially embedded, attempting to make connection with other organizations or causes, and for organizations with high levels of structural specialization, particularly those with subgroups devoted specifically toward non–conflict oriented behaviors. Hamas, with its explicit inclusion of behaviors providing social–welfare programs in the Palestinian territories exemplifies this distinction and therefore is expected to exhibit greater tactical flexibility than al–Qaeda which displays no such behavioral indicators and moderating influences. Further, an extremely low value may also be evidence of organizations in which terrorism has become a motivational need rather than a tactical expediency thus, if the presumption that al–Qaeda has expressive motivation toward terrorist behaviors is correct then the value for their I–4a index should differ significantly from that of Hamas in the direction of conflictual tactics (a lower value) while the value of this index for Hamas may not differ significantly from that of the state leaders because of their structural differentiation, and generally lesser social isolation.

I–4a (Cooperation/Conflict) Expectation B

The higher level of social embeddedness and cooperative behavioral tendencies exhibited by Hamas is indicative of a belief in the utility of increased tactical flexibility, therefore, the

Hamas score for this index will be significantly higher than that of al–Qaeda and should

approach the state leader mean value.

Table 4-13 – Values for the I–4a Index (Tactical Flexibility Cooperation / Conflict)

– Low Flexibility –				*State Leader* **Mean**	– High Flexibility –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
0.23	0.32	+0.41	+0.50	+0.59	+0.68	+0.77	+0.86	+0.95

Group or Test	Value	Significance Level
State Leader Maximum	+0.96	
State Leader Mean	+0.59	
State Leader Minimum	+0.20	
al–Qaeda Mean	+0.68	0.19
Hamas Mean	+0.63	0.28
al–Qaeda x Hamas		0.50

Both scores indicate a higher degree of tactical flexibility than for state leaders although the

significance levels are not compelling. This runs counter to the expectations based on

presumptions of terrorist organization behaviors. Also counter to expectations are the relative

values of this index for the two groups. Despite displaying social and structural traits that

should be indicative of greater tactical flexibility, the value obtained for Hamas is lower than

that of al–Qaeda although not significantly so. Explanation of this incongruity between

expectation and actual value is not readily apparent, particularly since it runs counter to the

results obtained from the I–2 index's measure of tactical intensity that indicated strong

preferences for conflictual actions for both groups. It is important to note, as will be evident

from the scores of the I–5 indices, that although the flexibility between conflict and

cooperation is higher than expected, it manifests as a dual emphasis on cooperative verbal

tactics and conflictual deed tactics. In the context of a need to remain relevant through

continued media presence coupled with a presumed terrorist bias in favor of action and

denigration of verbal behavior (see chapter one, page 40) the high flexibility may well be an

artifact of a combination of a preference for hostile actions and a perceived need to undertake devalued cooperative verbal tactics. Even still, the lack of agreement between the values obtained for this index and for the I–2 index is troublesome and casts some doubt on the validity of the I–4a measure.

I–4b. What is the best "timing" of action to advance one's interest?

Index: 1 minus Absolute Value [%Word - %Deed Self Attributions]

Expectations for the shift propensity between words and deeds are governed by the previously noted terrorist characteristics of belief in the efficacy of violent action, dismissal and denigration of words as opposed to deeds, and the extreme impatience of these groups in the realization of their goals. The oft noted terrorist propensity toward actions rather than words (Crenshaw 1986 & 1990b, Hoffman 1998; Laqueur 1987 & 2003) argues for a low level of tactical flexibility on the I–4b index. Hoffman (1998, pp. 174-175), in particular, has characterized the terrorist mindset as one that is incapable of being content with a slow march toward their political objectives achieved perhaps through long term negotiations and compromises. Action is their watchword and as such expectations are for a low propensity to shift between word and deed tactics. Further, terrorists have typically denigrated the value of words; only action can bring about the changes desired by the organization. Their self–perception as a vanguard element of a greater cause rests upon a perception of themselves as the only ones capable of undertaking action. All others continue only fruitless discussion.

I–4b (Word/Deed) Expectation A

A strong preference for action implies a low tactical flexibility between verbal and action options, therefore, the al–Qaeda and Hamas scores for this index will be significantly lower than the mean state leader value.

Jenkins (2006) has argued that in the wake of the destruction of its Afghanistan base and the persistence of high levels of conflict in Iraq, the relevancy of core elements of al–Qaeda is in question, making continued violent operations by al–Qaeda imperative. Expectations for Hamas differ in that its multiplicity of operating arms, extensive social contacts, role in the Palestinian political process, and responsive constituency, indicate a higher degree of flexibility between words and deeds than the relatively socially isolated al–Qaeda. Specifically the existence of its external political arm, which is largely responsible for strictly verbal activities including the representation of Hamas to other political actors, argues for a greater degree of tactical flexibility. However, an argument can also be made for an alternative expected value based on operational differences between the two organizations. Al–Qaeda has tended to engage in infrequent but highly dramatic, well coordinated, attacks aimed at catastrophic levels of damage. In contrast, Hamas has tended to engage in smaller scale, less technically sophisticated operations but much more frequent operations. The willingness of Hamas to engage in unilateral ceasefires may also be significant. These are usually of short duration, and while Hamas has tied their end in each case to specific precipitating Israeli actions, their inability to maintain the ceasefire could well be indicative of high internal pressures to return to action. The relative infrequency of the al–Qaeda actions could therefore be indicative of a greater shift propensity between deed and word actions.

I–4b (Word/Deed) Expectation B

Behavioral and structural differences between al–Qaeda and Hamas indicate increased tactical flexibility for the latter, therefore, the Hamas score for this index will be significantly higher than that of al–Qaeda and should approach the state leader mean value.

I–4b (Word/Deed) Expectation C

Behavioral and structural differences between al–Qaeda and Hamas indicate increased tactical flexibility for the former, therefore, the Hamas score for this index will be significantly lower than that of al–Qaeda and should approach the state leader mean value.

Table 4-14 – Values for the I–4b Index (Tactical Flexibility Deeds / Words)

– Low Flexibility –				*State Leader* **Mean**		– High Flexibility –		
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
0.14	0.23	+0.33	+0.42	+0.51	+0.60	+0.69	+0.79	+0.89

Group or Test	Value	Significance Level
State Leader Maximum	+0.97	
State Leader Mean	+0.51	
State Leader Minimum	+0.00	
al–Qaeda Mean	+0.52	0.89
Hamas Mean	+0.39	0.01
al–Qaeda x Hamas		0.08

As with the results of the I–4a index the results for I–4b run partially counter to expectations. The value obtained for al–Qaeda does not differ significantly from the state leader mean and therefore runs counter to expectation A. The value obtained for Hamas is in line with predictions, differing significantly to the 0.01 level in the direction of lower tactical flexibility and is supportive of the expectation. The values for the two groups differ significantly from

each other with Hamas demonstrating lower flexibility and therefore support in favor of the alternative expectation (C).

The presumed devaluation of verbal tactics may not be resulting in a straightforward disuse of those tactical options. Particularly if these organizations have a demonstrated belief in tactical flexibility between conflict and cooperation, it may be the case that each organization perceives the utility of individual tactics differently. This should manifest in shifts away from the state leader tactical utilities in predictable manners. While the I–4a index indicates that there is no significant difference in the tactical flexibility between conflict and cooperation for these two groups, it is clear from the I–2 index that al–Qaeda seeks to pursue fundamentally more conflict oriented options than does Hamas. Taking as a given the higher value placed on actions, this argues for a direct shift between the I–5 Reward and I–5 Punish indices with the less valued word indices remaining at essentially state leader levels. The less conflict oriented Hamas might well be assumed to pursue a different course, still shifting away from the use of Reward tactics but taking the less intensely conflict oriented course of shifting toward the I–5Approve tactics. The more valued deed tactic is therefore shifted into the less valued word tactic. Both options would be in line with the general denigration of word tactics indicated by terrorist theorists. However, one cannot ignore the possibility that the previous expressed presumptions regarding terrorist tactical flexibility are simply incorrect. It may be that the tactical flexibility of terrorist organizations has simply been underestimated and is more a artifact of perceptions of their behaviors rather than reflective of an actual belief in a restricted tactical menu.

I–5. What is the utility and role of different means for advancing one's interests?

Index: Percentages for Self Attributed Exercises of Power in Categories a through f

(frequency of action type divided by total self attributed actions)[104]

a. Reward

b. Promise

c. Appeal/Support

d. Oppose/Resist

e. Threaten

f. Punish

Presuming that the resort to terrorist action is borne out of a disparity of resources and the terrorist belief that other avenues of political change are closed; there is a strong reason to suspect that the utility of any means other than hostile actions will be downplayed in the belief system of the terrorist actor. This same expectation occurs as a result of presuming an expressive motivation for violent action. The conduct of violence for the sake of violence should be apparent as high propensities for the Threat and Punish tactical alternatives. Further, given certainty of eventual success, the mere continued existence of the organization would seem to argue for a high utility of violent action. The expectation for these values is therefore medium to low levels for all action types except those of the "threaten," "punish" and "reward" categories. The first two constitute conflict oriented behaviors as well as actions (rather than words) which should make up the primary tactical choices of terrorist organizations. Frequencies for the I–5 Threaten and I–5 Punish categories should therefore be

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[104] "Although this index can vary between 0.0 and 1.0, it is relatively unlikely with six categories that the upper boundary will be reached, and so .32 is defined as the descriptor in the following scale…twice the expected proportion when each category is equally useful." (Walker, Schafer & Young 2003)

significantly higher than the state leader means. The third category represents cooperative

actions (reward) and are reasonably expected to be significantly lower than the state leader

mean. The rejectionist positions of both organizations make reward tactics unlikely. Hamas

has continually denounced reward tactics in the form of the granting of concessions to Israel

on the part of the Palestinian Authority and al–Qaeda's Manichean beliefs presumably

preclude the use rewarding of one's opposition.

While it is initially reasonable that tactical choices perceived as less useful or desirable would

receive lower utility scores, this may not be the case. Given the general level of terrorist

denigration of verbal tactics, these indices may be expressing the perceived utility of a

"throwaway" tactic, one that neither costs the organization nor is expected to net significant

value. Unable or unwilling to perform potentially more valuable actions, due to resource

limitations and/or unacceptable risk levels, but still needing to remain publicly active, these

groups may choose to use the option of least value and cost. If all actions are likely to be met

with conflictual responses, as is evidenced by the values of the P–1 and P–2 indices, then it

would be strategically sound for terrorists to utilize low risk and cost actions that do not

compromise their strategically conflictual plan as would the use of the Reward or Promise

tactical categories. This would partially explain unusually high utility values attached to the

Support or Oppose tactics.

I–5a (Reward) Expectation A

Terrorist preferences against cooperation coupled with rejectionist positions of al–Qaeda

and Hamas indicate a very low utility attachment to the tactics of reward, therefore, the

al–Qaeda and Hamas scores for the I–5a index will be significantly lower than the mean

state leader value.

I–5e (Threaten) Expectation B

The greater intensity with which terrorist actors are presumed to pursue conflictual tactics

indicates that a high utility value is linked to the use of threats, therefore, the al–Qaeda and

Hamas scores for the I–5e will be significantly higher than the mean state leader value.

I–5f (Punish) Expectation C

Terrorist preferences for both deeds and conflict imply a high utility for the tactic of

punishment, therefore, the al–Qaeda and Hamas scores for the I–5f index will be significantly

higher than the mean state leader value.

However, as noted above in the discussion of the I–4 indices the previous results of the I–2,

I–4a and I–4b indices may be indicative of group specific differences in the perceived tactical

utilities. Where appropriate these are noted in the discussion of the relevant index. It may be

important to keep in mind that the sum of the utility values over the six indices must equal

unity for the al–Qaeda and Hamas scores. Therefore, a decrease in the value of one index (in

comparison to the state leaders) necessarily implies an increase in one or more other indices.

This is what is meant when the value of one utility is "shifted" to that of another.

Cooperative actions are, as expected, downplayed in the tactical considerations of these two

organizations. Both I–5a scores are lower than the state leader mean and strongly significant,

indicating support in the direction of the I–5a (Reward) expectation. However the results do

run somewhat counter to popular Western perceptions of al–Qaeda and Hamas. The tactical use of cooperative actions, while lower than that of state leaders is not dramatically lower in that it does not approach the minimum value obtained from the state leaders.

Table 4-15 – Values for the I–5a Index (Utility of Reward Tactic)

– Low Utility of Tactic –				*State Leader* **Mean**		– High Utility of Tactic –		
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
0.01	0.04	+0.07	+0.10	+0.14	+0.17	+0.20	+0.24	+0.27

Group or Test	Value	Significance Level
State Leader Maximum	+0.23	
State Leader Mean	+0.14	
State Leader Minimum	+0.00	
al–Qaeda Mean	+0.08	0.01
Hamas Mean	+0.08	0.00
al–Qaeda x Hamas		0.88

Popular portrayals of these two organizations would lead one to believe that such actions would be all but unknown to them. This is clearly not the case. The values obtained for Hamas and al–Qaeda also agree with the predictions made with regard to the I–4b index above. However the lack of significant difference between the values for the two organizations is somewhat counter to expectations. Since Hamas finds itself directly competing for the constituency of the Palestinian people there is an expectation for a higher than al–Qaeda reliance upon cooperative actions. This is not supported by the index values.

Still comparison of the I–5 Approve index to the I–5 Punish index (indicative of hostile actions) is instructive. Al–Qaeda shows a significantly higher reliance upon punish tactics over that of the state leaders so it is clear that al–Qaeda bears out the assumption that when actions are taken for terrorist organizations they are significantly more likely to rely upon hostile actions rather than cooperative ones. The picture is different for Hamas. While the

reliance of Hamas on cooperative actions is also significantly less than that of state leaders their reliance on hostile actions is indistinguishable from that of state leaders. Even in specific tactical choices then Hamas diverges from expectations. This is somewhat unsurprising given the multiplicity of specialized organs Hamas maintains for functions not normally associated with a terrorist organization.

Table 4-16 – Values for the I–5b Index (Utility of Promise Tactic)

– Low Utility of Tactic –				*State Leader* **Mean**		– High Utility of Tactic –		
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
-0.01*	0.01	+0.03	+0.05	+0.07	+0.09	+0.11	+0.13	+0.15

Group or Test	Value	Significance Level
State Leader Maximum	+0.15	
State Leader Mean	+0.07	
State Leader Minimum	+0.00	
al–Qaeda Mean	+0.05	0.50
Hamas Mean	+0.04	0.02
al–Qaeda x Hamas		0.77

* Minimum value for this index is 0.00.

Because of general denigration of word tactics and the preference for conflict oriented action, the expectation is for this utility to be lower than for the state leaders although there is no indication that said difference would be of substantial degree. The values returned for both organizations are in the direction expected although only the Hamas value differs significantly from the state leaders. The values for the two groups do not differ significantly from one another. Likely, the lower value indicated for Hamas is related to the aforementioned opposition to the Reward tactics of Fatah.

Expectation is that the utility of cooperative words will be higher for Hamas than for al–Qaeda and that Hamas levels should be at or slightly lower than state leaders reflective of

a shift away from cooperative deeds to cooperative words on the part of Hamas. As the shift away from cooperative deeds for al–Qaeda is likely to manifest in a direct transfer to conflict deeds there is little to suggest an expected value for al–Qaeda although lower than either Hamas and state leaders would not be out of place given a general presumption of disutility of both cooperation and words.

Table 4-17 – Values for the I–5c Index (Utility of Approve Tactic)

– Low Utility of Tactic –				*State Leader* **Mean**	– High Utility of Tactic –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
+0.26	+0.32	+0.37	+0.43	+0.49	+0.54	+0.60	+0.65	+0.71

Group or Test	Value	Significance Level
State Leader Maximum	+0.68	
State Leader Mean	+0.49	
State Leader Minimum	+0.21	
al–Qaeda Mean	+0.42	0.29
Hamas Mean	+0.54	0.07
al–Qaeda x Hamas		0.07

In contrast to expectations, Hamas demonstrates significantly greater than state leader reliance on the Approve tactic. Suspicion again is that the lower than state leader utility for the Reward and Promise tactics is resulting in a shift toward the Approve and Oppose tactics for Hamas and a shift toward the Threat and Punish tactics for al–Qaeda. The value for al–Qaeda is lower than the state leader mean, as predicted, but only at a 0.29 significance level.

However it is important to note that the total reliance on the three cooperative tactics for state leaders comes in at 0.70 while the value for al–Qaeda is 0.55 and the value for Hamas is 0.66 indicating an overall lower importance attached to the cooperation tactics and an emphasis on Approval when tactical cooperation is indicated. It is clear that when either of these

organizations utilizes cooperative tactics, actions are devalued in comparison to the set of

state leaders. Still it is apparent from the cooperative utility indices that al–Qaeda more

closely approximates the expectations for a terrorist organization than does Hamas.

Table 4-18 – Values for the I–5d Index (Utility of Oppose Tactic)

– Low Utility of Tactic –				*State Leader* **Mean**	– High Utility of Tactic –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
+0.03	+0.06	+0.09	+0.11	+0.14	+0.17	+0.20	+0.23	+0.25

Group or Test	Value	Significance Level
State Leader Maximum	+0.25	
State Leader Mean	+0.14	
State Leader Minimum	+0.04	
al–Qaeda Mean	+0.14	0.96
Hamas Mean	+0.16	0.40
al–Qaeda x Hamas		0.63

Evidence for the expected value of the Oppose utility is contradictory. As with the previous

indices the primary factors in informing expectations are the presumed terrorist propensity for

deeds over words and for conflict over cooperation. However these two factors oppose each

other in determining the value for the Oppose tactic. With little to indicate which, if either, of

these factors is the stronger there is commensurately little to recommend an expectation

outside of the state leader values. This is, in fact, the result seen as the utility of the Oppose

tactic does not differ significantly from the state leaders for either organization, nor does it

differ significantly between the organizations themselves.

While still a utility linked to word actions, the use of the Threaten tactic does indicate a

greater intensity of conflict and therefore is more likely to display a significant difference

from the state leader values than was the Oppose tactic.

Table 4-19 – Values for the I–5e Index (Utility of Threat Tactic)

– Low Utility of Tactic –				*State Leader* **Mean**	– High Utility of Tactic –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
-0.05*	-0.03*	+0.00	+0.02	+0.04	+0.07	+0.09	+0.12	+0.14

Group or Test	Value	Significance Level
State Leader Maximum	+0.20	
State Leader Mean	+0.04	
State Leader Minimum	+0.00	
al–Qaeda Mean	+0.11	0.07
Hamas Mean	+0.06	0.19
al–Qaeda x Hamas		0.18

* Minimum value for this index is 0.00.

The values for both al–Qaeda and Hamas are in the direction predicted, indicating greater reliance on the verbal Threaten tactic than state leaders. The value for al–Qaeda is significant at the .07 level however the Hamas value does not differ significantly (0.19). While the al–Qaeda value is suggestive of the veracity of the I–5e expectation, the low value and lack of significance of the Hamas score is puzzling.

Table 4-20 – Values for the I–5f Index (Utility of Punish Tactic)

– Low Utility of Tactic –				*State Leader* **Mean**	– High Utility of Tactic –			
Extremely	Very	Definitely	Somewhat		Somewhat	Definitely	Very	Extremely
-0.05*	-0.01*	+0.03	+0.08	+0.12	+0.16	+0.21	+0.25	+0.29

Group or Test	Value	Significance Level
State Leader Maximum	+0.41	
State Leader Mean	+0.12	
State Leader Minimum	+0.00	
al–Qaeda Mean	+0.20	0.05
Hamas Mean	+0.12	1.00
al–Qaeda x Hamas		0.05

* Minimum value for this index is 0.00.

Expectations for the Punish utility are relatively straight–forward and were previously discussed. The terrorist preference for both deed and conflict should manifest itself as higher rates of utility than those obtained for the state leaders. Additionally it is the reliance upon conflictual actions that generally serves as part of the defining feature for a terrorist organization hence one would expect that a high degree of utility for the Punish tactic would be a given for an organization so designated. The value obtained for al–Qaeda is in line with predictions, with a value of 0.20 indicating greater than state leader reliance on the Punish tactic to the 0.05 significance level. However the value obtained for Hamas, is indistinguishable from the state leader mean at any significance level. The score for al–Qaeda strongly favors the I–5f expectation but the Hamas value is again problematic. Particularly with regard to these last two indices Hamas appears must more akin to state leaders than their engagement in terrorist actions would suggest.

General Conclusions Regarding the Instrumental Indices

In keeping with the philosophical indices that demonstrated a high degree of coherence between al–Qaeda and Hamas,[105] the instrumental indices demonstrated similar coherence varying in their direction from the state leader values only on I–4b and elements of the I–5 indices. However, in several instances the scores obtained from Hamas provided only weak confirmation of the hypotheses generated from prior research into terrorism or ran counter to expectations. In most instances the al–Qaeda values were supportive of those same hypotheses.

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[105] Although the al-Qaeda and Hamas values for each of the five Philosophical indices differed significantly from each other, these differences were, for the most part a matter of degree of difference from the state leader values. Only on the P-4 index did they differ in direction.

Graph 4-21 – Instrumental Index Summary Results
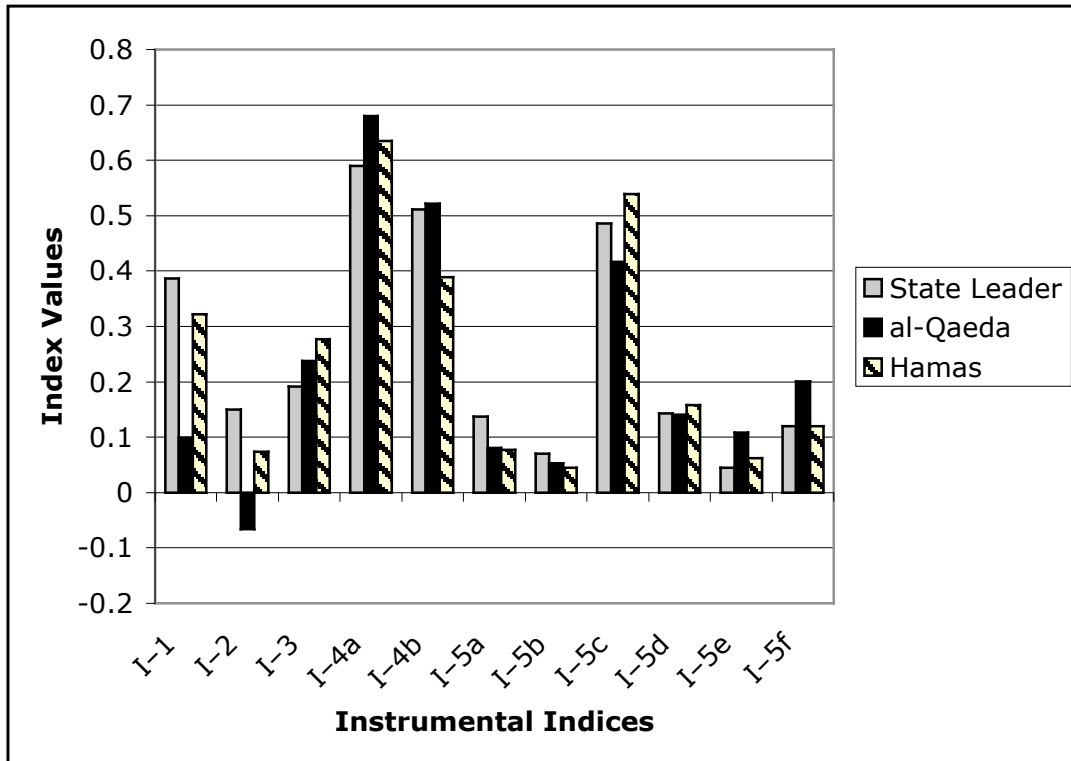
That there would be differences in their instrumental beliefs was anticipated given their differences in motivation, structure, and behaviors but the degree to which Hamas differed from expectations, particularly with regard to the I–5 utility scores, was unforeseen. While this could be taken as an indication that the Hamas organization has been misclassified as terrorist, since it does not share the instrumental beliefs presumed to be characteristic of such organizations, an alternative is that Hamas may demonstrate a division of belief system along either chronologic or structural lines that, when combined into a single measure, results in these more moderate values. This alternative is examined in the following chapter.

Tactical Utility Hierarchies

Summation of the tactical utility scores from the I–5 indices into subtotals for cooperation and conflict tactics provides insight into the unexpected results from the tactical flexibility index for those options (I–4a). The state leader utilities indicate a 70 / 30 ratio of cooperative to conflictual preference. The results for Hamas indicate a 66 / 34 ratio and the Al–Qaeda scores provide a 55 / 45 ratio. The higher tactical flexibility indicated by the I–4a score for al–Qaeda therefore results from the increased utilities al–Qaeda assigns to conflictual tactics. This also appears true, albeit to a lesser extent, for Hamas. The greater than expected tactical flexibility between cooperative and conflictual tactics does not represent, as previously interpreted, a greater willingness on the part of al–Qaeda and Hamas to vary their tactical choices, instead it represents the relatively greater utilities attached to the tactics of conflict. This interpretation has the advantage of also being consistent with the values obtained from the tactical intensity index (I–2).

There is however, little to distinguish the relative utility of cooperative actions between the three actors in terms of a ranking of the tactical categories. Although both al–Qaeda and Hamas differ significantly in one or more of these categories from the state leader scores, the ranking of Approve > Reward > Promise is common to all three. The state leader indices always indicate a preference for cooperative tactics at each level of intensity; this differs from both Hamas and al–Qaeda. Hamas indicates a preference for conflict in both of the Punish/Reward and Threat/Promise pairings which are indicative of higher intensity actions. Al–Qaeda is clearly different from either. While the relatively low intensity Approve action is still preferred, this is immediately followed by each of the three conflict utilities and the higher intensity cooperative actions are least favored. In both instances the hierarchies reflect

an emphasis on conflictual actions as intensity of action rises, this being more pronounced in al–Qaeda. This lends further credence to the supposition that al–Qaeda may be expressively motivated toward the use of violent action.

Table 4-22 – Tactical Utility Hierarchies (Raw Scores)

Tactic	al–Qaeda	Hamas	State Leaders
Reward (RE)	0.08	0.08	0.14
Promise (PR)	0.05	0.04	0.07
Approve (AP)	0.42	0.54	0.49
Oppose (OP)	0.14	0.16	0.15
Threat (TH)	0.11	0.06	0.04
Punish (PU)	0.20	0.12	0.12

State Leaders
     AP > (OP = RE) > PU > PR > TH
   Cooperation
     AP > RE > PR
   Conflict
     OP > PU > TH

Hamas
     AP > OP > PU > RE > TH > PR
   Cooperation
     AP > RE > PR
   Conflict
     OP > PU > TH

al–Qaeda
     AP > PU > OP > TH > RE > PR
   Cooperation
     AP > RE > PR
   Conflict
     PU > OP > TH

To an extent, the relative utilities of each tactical category are dependent upon the number of verb forms that can be coded into that category. This likely accounts for the presence of the Approve tactic as the primary tactical category for all groups, as the number of verb forms that code to the corresponding +1 value is significantly larger than the number of verb forms corresponding to any other of the tactical propensities. While this should make us skeptical in drawing conclusions based on the similarity of ranking hierarchies it only serves to highlight

the presence of differing utility rankings. Thus bolstering the belief that there are significant differences between Hamas, al–Qaeda, and the state leaders. An alternative to relying upon the raw utility scores of the I–5 index is to compute the tactical hierarchies based on values of the I–5 index that correct for this artifact of the coding process. If one presumes that the state leader mean values should represent a perfect distribution of tactics, then the differences in utility scores would be driven solely by the number of verb forms corresponding to each tactic in the VICS coding process. Since this is obviously not entirely accurate both the raw score and adjusted-score hierarchies are presented. Given that perfect tactical distribution would be indicated by 0.16 values[106] for each I–5 index, a corrected value can be obtained for the al–Qaeda and Hamas scores by multiplying the al–Qaeda and Hamas scores by the ratio of the state leader mean and 0.16 which results in the following scores.

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[106] This value is obtained by dividing unity by the number of tactical options available (six) and rounding down.

Table 4-23 – Tactical Utility Hierarchies (Adjusted Scores)

Tactic	al–Qaeda	Hamas
Reward (RE)	0.10	0.09
Promise (PR)	0.12	0.11
Approve (AP)	0.14	0.18
Oppose (OP)	0.16	0.18
Threat (TH)	0.40	0.23
Punish (PU)	0.28	0.17

Hamas
      TH > (OP => AP => PU) > PR > RE
   Cooperation
      AP > PR > RE
    Conflict
      TH > (OP => PU)

Al–Qaeda
      TH > PU > OP > AP > PR > RE
   Cooperation
      AP > PR > RE
    Conflict
      TH > PU > OP

Summation of the tactical utility scores from the adjusted I–5 scores further supports the above contention regarding interpretation of the I–4a tactical flexibility index. The 84 / 36 and 58 / 38 ratios of conflict to cooperation for al–Qaeda and Hamas respectively, indicate far larger emphasis on conflictual tactics. The adjusted–score hierarchies also agree better with presumptions regarding terrorist preference for the tactics of conflict as well as the tactical intensity (I–2) scores. Seen in this way, the utility hierarchies demonstrate a high level of correspondence between al–Qaeda and Hamas. The identical hierarchies for cooperative tactics indicate a strong reluctance to engage in higher intensity behaviors (Promise and Reward). While Hamas is obviously more balanced in its tactics, the hierarchies for the two groups differ only in the position of the Punish alternative. Al–Qaeda places much more emphasis on this category; it resides at near equal value to the Approve and Oppose tactics for Hamas. This would seem to indicate that while the ability to threaten violence is highly

valued by both organizations, the actual utility assigned to violent action and the corresponding commitment to these types of actions differs.

General Discussion of Terrorist Organization to State Leader Comparison

Do the operational codes of al–Qaeda and Hamas differ from the mean state leader values in such a way as to indicate the presence of a belief system specific to terrorist organizations? Primary evidence for this contention would be indicated by a highly conflictual worldview, a strategic and tactical reliance upon conflict, belief in a largely predictable international system, high levels of risk acceptance, and tactical reliance upon the use and threat of violence for both organizations. The operational code indices corresponding to these beliefs (P–1, P–2, I–1, I–2, P–3, I–3, I–5e, and I–5f respectively) are generally supportive of this position. Both al–Qaeda and Hamas view other political actors as being primarily and intensely motivated toward the use conflictual behaviors as is indicated by P–1 and P–2 scores. They also share a perception of a political universe that is highly predictable indicated by their P–3 index scores. Although the P-4 and P-5 indices do not indicate a uniform distinction between the two groups and the state leaders, they measure beliefs for which there is either no reason to presume a significant difference from other international actors or the evidence in favor of such differences is contradictory and therefore inconclusive. Both indices also rely upon the ratio of "self" to "other" attributions which as indicated previously is suspect for al-Qaeda because of the decision to code divine references as "other."

It would seem consequently that there is good reason to believe that these two organizations are distinctly different from state leaders with regard to their philosophical beliefs. While this may seem no more than a common sense conclusion, independent and reproducible

verification that these kinds of organizations have a largely different philosophical view of the political universe is an important factor in both the academic and policy–centric studying of these organizations. It calls into question the validity of applying a strict rational approach that subsumes belief and value systems consistent with other actors in the system. At the same time the commonality of their differences from the state leaders also lends credence to an approach which treats them as a single class of actor. The differences between the organizations are significant enough however to avoid a simplistic reduction of all terrorist actors to a single form. While their differences may only be the degree to which they differ from the state leader norms, that degree of difference may be critical to understanding the differences in behavior of the organizations. While no such direct linkage is attempted in this project, the results obtained certainly indicate reason to pursue this line of inquiry.

With regard to their instrumental beliefs there is still evidence to indicate Hamas and al–Qaeda distinctiveness from state leaders however these differences are much less uniform between the two organizations. The difference between the organizations and state leaders are only uniformly significantly different on the tactical means of goal pursuit (I–2) and the disutility of the reward tactic (I–5a). The instrumental indices obtained from al–Qaeda conform well to the hypothesized terrorist belief structure. Only the risk acceptance index (I–3) does not differ significantly in the direction indicated at 0.10 or better level although it is not far off the prediction at a 0.20 significance. Problematic however are the instrumental indices derived for Hamas. Only the tactical intensity (I–2) and risk acceptance (I–3) indices were significant in directions indicative of a coherent terrorist belief system. The other key instrumental indices did not differ significantly from the state leader means. The I–1 index (strategic emphasis on conflict) and the I–5 utility scores are much closer to those of the state

leaders than are the instrumental beliefs of al–Qaeda. Particularly troubling is the fact that the utility attached to the use of Punish tactics (I–5f) was indistinguishable from the state leader utility level.

The fact that Hamas' tactical utilities (I–5) do not conform to expectations has several potential explanations. One possibility is that the predicted belief structure is simply incorrect. The conformity of al–Qaeda to the predicted values and the grounding of those predictions in terrorist literature makes this unlikely. A second possibility is that characterization of Hamas as a terrorist organization is simply incorrect. While possible, the uniformity of its philosophical beliefs with al–Qaeda and its known involvement in activities characteristic of terrorism (specifically suicide bombings) would seem to argue against such a misclassification. The third possibility is that there are multiple belief structures that can be associated with terrorist organizations and Hamas is an exemplar of one of these other structures. The explanations provided in the previous index descriptions provided some possibilities in which the instrumental indices of Hamas can be reconciled with conventional beliefs regarding terrorist organizations. Examination of the tactical hierarchies also indicated that the tactical approaches of Hamas and al–Qaeda may not be as different as the initial coding results indicated. As was noted in the chapter 2 discussion of the Hamas and al–Qaeda case choices, Hamas does differ in important ways from the conventional image of a terrorist organization. It is significantly more embedded in the social fabric, is larger in direct and affiliated membership numbers, and is considerably more diversified in terms of both its structures and the range of its types of operations. While these structural and operational differences could be situational, they may also reflect fundamental differences between ideologically motivated and nationalist motivated organizations. The fact that these

differences are mirrored in the asymmetry in instrumental beliefs between al–Qaeda and Hamas does tend to support the presence of a distinction between their underlying motivations.

Direct Comparison of al–Qaeda and Hamas

As was previously indicated, despite a common portrayal as "Islamic terrorist organizations" there are significant differences between the Hamas and al–Qaeda organizations with regard to their structures, causes, types of operations, constituencies, and degree of social connection. Do these differences manifest as differences between their operational codes? It is clear from the preceding discussion that the operational codes for these two organizations differ significantly from those of the state leaders but is it equally clear that they differ significantly from each other in important ways? Aside from the risk acceptance index (I–3), the cooperation/conflict flexibility index (I–4a) and several of the tactical utility indices (I–5), all other philosophical and instrumental beliefs differ significantly between al–Qaeda and Hamas.[107] In most instances these represent varying degrees of difference from the state leader values and are therefore expressions of the extent to which the belief is held rather than substantive divisions between the two. This is particularly true of the philosophical indices. While both organizations display belief in a political universe that is highly conflictual (P–1 and P–2) and highly predictable (P–3), all three beliefs are more extreme for al–Qaeda than for Hamas.

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[107] The P-5 index, indicating the perception of the role of chance, only differs weakly at a 0.13 significance level.

The instrumental indices display similar traits although there are greater instances of substantive difference (defined as varying in direction from the state leader mean). In general, as noted previously, the instrumental indices for Hamas display a greater commonality with the state leader values than with those of al–Qaeda. Despite similar perceptions of their political universe, there appears to be a difference in both the strategic and tactical choices between al–Qaeda and Hamas. Hamas seems to have chosen to adopt a mixed strategy in the pursuit of its objectives and to this end employs a lower than expected level of conflict–oriented tactical options This lends further plausibility to the presumption that we can differentiate between motivational types of organizations on the basis of their belief structures.

Expressive and Instrumental Motivation

Most important to the question of operational code differences between al–Qaeda and Hamas is the issue of whether or not the operational code can differentiate between organizations utilizing terrorism instrumentally and those that utilize it out of expressive motivations. This expressive/instrumental difference between organizations is conceived here as a continuum, one end of which marks an organization completely motivated by instrumental concerns, the other by organizations completely ruled by the expressive need for violent action. In all likelihood no organization exists at either extreme, and shifts along this continuum over time are probable. This portrayal is consistent with McCormick's observation (2001, p. 480) that terrorist groups are likely to shift behaviorally over their life spans according to their competing instrumental and expressive motivations, and is also consistent with the views of Staub (2003, p. 9), Crenshaw (1988, p. 21) and Post (1987 & 1990) regarding the potential for groups to move toward expressive violence.

One cannot determine the extent of expressive motivation from observance of behaviors. An expressive act of violence is not necessarily a violent act committed as a result of expressive motivations. The choice of a largely symbolic target, while seemingly indicative of expressive violence, may be rooted solely in instrumental concerns. Perhaps more substantive targets are too well protected, or the organization believes the target, being symbolic, will generate greater media attention. Any number of instrumental motivations are plausible. Determination of an expressive motivation toward violence therefore requires knowledge of the beliefs underlying the action and so should be amenable to determination via operational code analysis.

Is there reason to suspect that either Hamas or al–Qaeda are so motivated? Both are religious organizations which, as a category, have often been cited as being more prone to the usage of expressive violence than other types of terrorist organizations (Jenkins 2006; Jurgensmeyer, 1988 & 2003; Ranstorp, 1996; Rapoport, 1990). As described by Rapoport (2001), Laqueur (1999) and others, both organizations also fit the general profile for the "new terrorism" which is also associated with a higher probability of expressive violence. Each displays evidence of very strong collective identities which Post (1987 & 1990) and Crenshaw (1988) have linked to the potential for the substitution of instrumental objectives with an expressive need for the group's continuation. However, the ethno–nationalist element of Hamas goals implies at least the potential for a stronger instrumental motivation. Behaviorally Hamas has also displayed indications of the instrumental use of violence particularly in its use of ceasefires and the deliberate linkage of its attacks to specific opposition actions. While certainly not conclusive these do provide a basis for the exploration of whether or not

al–Qaeda displays belief system characteristics indicative of the presence of a significant expressive motivation. Several indices speak indirectly to the instrumental/expressive balance within these organizations. Unfortunately, the operational code does not provide a direct measure of the expressive/instrumental motivational balance, nor is there a clear external indicator with which to test this hypothesis. Thus, even if all indicators are the in the directions predicted, this still only provides a circumstantial case that the group is oriented toward expressive rather than instrumental violence.

While mentioned in the index discussions earlier in this chapter, the expectations with regard to indices for differences between expressive and instrumental terrorist organizations, are presented here to clarify the results obtained.

P–4: the level of self mastery over events

While it is possible that a group motivated toward expressive violence would justify its actions in terms of achieving particular instrumental objectives, the degree to which achieving those objectives is actually secondary to the actual use of violence. This should manifest itself as lower perceived ability to affect political change. Engagement in terrorism while perceiving a low chance of it to alter conditions is indicative of the presence of a non–instrumental motivation. A low *control over events* LTA value (and related P-4 index) may also be, according to Lazareska, Sholl, and Young (2006), indicative of a belief that only extreme actions have the potential to achieve change. However, as such a belief is likely to be present in all terrorist entities the existence of significant difference in the P-4 indices for two terrorist entities implies some other causative factor. Al–Qaeda's score on the P–4 index is lower than that of Hamas and the difference between them is significant at better than 0.01.

I–1: Strategic direction of self actions

As indicated in the discussion of the index, an expressively violent organization will necessarily exhibit a predilection toward conflict, particularly the use of conflictual actions which will manifest as a strongly negative score on the I–1 index. Such a value may be shared by instrumentally motivated organizations particularly those operating under the assumption that only conflict can bring about political change. The al–Qaeda score on the I–1 index is lower than that of Hamas (indicating greater conflictual emphasis) and the difference is significant at the 0.05 level.

I–2: Tactical emphasis of self actions

While fundamentally an expression of tactical intensity and expected to be strongly negative (indicative of strong tendencies to prefer conflictual deeds) for both instrumental and expressive organizations, the I–2 index can also be an indicator of expressive tendencies. In order for an organization to be strategically motivated toward violent action the degree to which it pursues conflictual strategies must be intense. A more moderate value would indicate that the strategic goals of the organization (even if inherently conflictual) are being pursued by a mix of tactical options, at least between conflictual words and deeds if not also including substantial cooperative options. The al–Qaeda score on the I–2 index is lower than that of Hamas (indicating a more intense pursuit of conflictual tactics) and the difference is significant at the 0.04 level.

I–3: Risk acceptance

Risk acceptance is likely to be higher for an organization with an expressive motivation. They have greater incentive (both instrumental and expressive) to conduct violent actions and are

driven toward escalation of the level of violence. To the degree that this means having to take greater risks to achieve that escalation, an expressive motivation should manifest as a higher risk acceptance. The al–Qaeda score on the I–3 index is lower than that of Hamas which is indicative being less risk acceptant. The difference between the values is not significant (0.29) and runs counter to expectation.

I–4a: Shift propensity between cooperative and conflictual actions

As an expression of the tactical flexibility of an organization, one would predict that the I–4a index for an expressively motivated organization would indicate an unwillingness to switch away from conflictual tactics. Thus the expectation is that the I–4a index will be lower for al–Qaeda than for Hamas. In fact, however, the al–Qaeda score is higher, although the difference between the two is not significant (0.50). While this seems to run counter to the proposition that al–Qaeda has a more prominent expressive motivational element than does Hamas, closer examination suggests otherwise. The summed tactical utility scores from the I–5 indices indicate that this "greater tactical flexibility" results from the increased tendency to rely upon conflictual options for both al–Qaeda and Hamas. This tendency is far more pronounced in al–Qaeda than in Hamas, such that the I–4a value, to the degree that it reflects this greater emphasis, does support the proposition of an expressively motivated al–Qaeda.

I–5f: Utility of the Punish tactic

An expressively motivated organization should be less inclined to maintain tactical flexibility, seeking instead to maximize its conflictual actions. Derivation of an intrinsic strategic benefit from conflictual actions should be indicated then by a greater tactical utility associated with Punish tactics. The al–Qaeda score on the I–5f index is higher than that of

Hamas (indicating perception of a greater utility for that tactic) and the difference is significant at the 0.05 level.

Additional support of an expressive motivation can be found in the tactical hierarchies obtained from the adjusted utility scores. As indicated earlier, the only difference between the hierarchies of Hamas and al–Qaeda is the position of the Punish tactic. Recall that both organizations emphasized the use of Threat and in the case of al–Qaeda this was followed closely by the Punish tactic. In contrast the adjusted–score for the Punish tactic of Hamas placed it nearly equivalent to the Approve, and Oppose tactics. A compelling interpretation of the relative position of the Punish tactic is that Hamas pursues violent action in order to make use of the threat of continued violence. Its use of the Punish tactic is an instrumental choice made between the Approve, Oppose and Punish tactical options, dependent on which best suits its operational needs. Al–Qaeda, while deriving a similar instrumental benefit from Punish tactics (*ie*. the ability to make use of Threats), must also derive an additional benefit from this tactic otherwise it too would be valued at approximately the same level as the Oppose and Approve tactics. This additional benefit is the expressive component of its motivation.

Together these factors are highly suggestive of a more powerful expressive motivational element within al–Qaeda than in Hamas. Only the risk acceptance index (I–3) does not concur with the pattern of traits symptomatic of its presence. This should not be taken to mean that al–Qaeda is only motivated on an expressive level and is not seeking to act instrumentally. It does suggest however that a relatively larger component of its motivation is generated from expressive concerns. Factors that increase the emphasis on the communal

identity, such as increased societal isolation, shared involvement in violent actions, and the death of fellow organization members are only likely to increase the level of radicalization and as a consequence drive upwards the level of expressive motivation (Post, 1987 & 1990).

Conclusion

The preceding examinations of the operational codes of al–Qaeda and Hamas, and their comparisons to each other and to the norming group of state leaders have largely supported the primary contentions of this research project. Both Hamas and al–Qaeda view the political universe, their role within it, and optimal behavior under those conditions, in a manner that differs remarkably from that of state leaders. Although this still does not imply a singular belief system that is generalizable to all terrorists, or even to religious terrorists, it does indicate that certain philosophical and instrumental beliefs may be useful in the distinguishing of terrorist entities from other international actors. These differences appear to be more pronounced for al–Qaeda than for Hamas, whose instrumental beliefs often display strong similarities to those of the state leaders. Further, the results of this analysis indicate that the differences between these organizations are also significant and can be used to distinguish between them particularly with regard to the issue of instrumental and expressive motivations. Additionally, in most instances, the specific expectations regarding index values, generated from previously existing terrorism research and known group characteristics, were supported by the results of the operational code analysis. Cases that differed from expectations were often explainable in terms of specific situational characteristics, choices made in the coding process, or in the method of interpretation of the index. In general then the case for the utility of the operational code approach to the study of the belief systems of terrorist entities appears to be a compelling one.

Chapter Five:
Internal and Chronologic Divisions within the Operational Codes of al–Qaeda and Hamas

The analyses carried out in the previous chapter treated the al–Qaeda and Hamas test groups as unitary entities in their comparisons to each other and to the norming group of state leaders. Their operational codes were also treated as static over time. In this chapter both of these presumptions are set aside. First, coherence of the al–Qaeda operational code is examined by segregating the collected al–Qaeda statements according to the attributed speaker and comparing the operational codes obtained from bin Laden's statements to those made by other members of the organization. A second analysis is performed that compares two groups of al–Qaeda leadership that were suggested as a result of cluster analysis on the leader differentiated al–Qaeda statements. Examination of changes to the al–Qaeda operational code over time are also examined. Al–Qaeda statements were re–organized chronologically, without regard to speaker. Initial categorization of chronologic periods was based upon the desire to maintain approximately equivalent time periods between the categories as well as similar numbers of statements and comparable word counts. This is followed by analysis of groups suggested by cluster analysis over the chronologically organized statements. A final examination of the al–Qaeda operational code classifies the chronologically organized statements into categories representing periods of threat and success for al–Qaeda. These are used to determine if differences between the operational codes over these periods could be used as markers for relevant shifts in the organizational life cycle of al–Qaeda.

A similar process is used to examine the internal and chronologic divisions within Hamas. Due to the relatively small number of Hamas statements that could be directly attributed to

specific leaders, statements were categorized according to attribution to one of three subgroups: Hamas leadership, statements attributed to the Qassam Military Brigades, and Hamas statements with non–specific attributions. Coherence of the belief system is then measured across these three subgroups. The operational code for the Qassam Military brigades is also examined with comparisons to other Hamas sub–groups, the norming group of state leaders, and to al–Qaeda. Cluster analysis over the Hamas statements largely serves to confirm the tripartite categorization scheme. Changes to the Hamas operational code over time are handled in the same manner as they are for al–Qaeda. Statements were re–grouped chronologically without regard to attribution. These were split annually and examined for potential trends. Cluster analyses are performed over the non–attributed Hamas statements and the resulting statement clusters are also examined for evidence of belief system alteration over time. Finally, as with al–Qaeda, the chronologically organized statements are grouped according to periods of threat and success for exploration of potential organizational life cycle shifts. This is followed by a brief summary of the results of these analyses of the operational codes of al–Qaeda and Hamas.

The Operational Code of al–Qaeda

Analysis of the Operational Code Divisions within al–Qaeda

Examination of the operational code of various members of al–Qaeda should provide some measure of the coherency of the al–Qaeda belief system. It also speaks to the influence of bin Laden on al–Qaeda beliefs and allows for exploration of the degree to which the beliefs of affiliated groups (such *al–Qaeda in Iraq*, formerly headed by Zarqawi) correspond to those of al–Qaeda. A four part approach to these comparisons follows starting with a face value look at the raw scores for each leader. This is followed by both hierarchical and non–hierarchical

cluster analyses of the leadership statements, a t–test comparison of bin Laden to the other

leaders, and finally a t–test of leader groupings suggested by the results of the cluster

analyses.

Analysis of belief system division within al–Qaeda is hampered by the number and length of

the statements available for coding. Further, of the 15 observations (composed of 8 single

statements and 7 grouped statements), only 5 observations do not have Osama bin Laden as

the author. This imposes a significant limitation on the kinds of leadership comparisons that

can be made. For this reason the primary test of the al–Qaeda belief system coherence takes

the form of comparing the operational code of bin Laden to that of the other leaders.

Two basic results are possible. Either the operational code of bin Laden largely agrees with

the values obtained from other leaders, in which case coherence is presumed to be high, or

differences between the operational code of bin Laden and the other leaders are noticeable

and significant, in which case belief system coherence is likely to be low. In the latter

instance, identification of the points upon which there is disagreement may be important for

the formulation of counter–terrorism strategies and for anticipation of al–Qaeda behaviors

absent the influence of bin Laden, presuming his eventual death or capture.

The following table provides the scores for nine operational code indices organized by

leader.[108]

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[108] For all analyses in this chapter, only the following indices were used: P–1, P–2, P–3, I–1, I–2, I–3, I–5Re, I–5Ap, and I–5Pu. Each of these indices showed significant difference from the values obtained from state leaders and/or were significant in their difference between the al–Qaeda and Hamas organizations. Inconclusive or problematic results from the P–4, I–4a, and I–4b were enough to disqualify them from use. A subset of the I–5 indices was used to

Table 5-1 – al–Qaeda Leadership Indices

Index	Abu Ghaith	Unknown	Zarqawi	Abu Jandal
P–1	-0.061	-0.148	-0.250	-0.178
P–2	-0.150	-0.241	-0.292	-0.304
P–3	0.101	0.116	0.115	0.179
I–1	-0.200	-0.304	-0.583	0.029
I–2	-0.289	-0.542	-0.542	-0.095
I–3	0.125	0.203	0.212	0.124
I–5a Reward	0.141	0.140	0.102	0.104
I–5c Approve	0.281	0.230	0.221	0.328
I–5 Punish	0.359	0.450	0.420	0.400
Statements	3	4	1	1
Word Count	1527	2777	4603	4414

Index	Zawahiri	bin Laden A	bin Laden B	State Leaders
P–1	0.114	-0.252	-0.270	0.280
P–2	-0.042	-0.277	-0.291	0.133
P–3	0.100	0.131	0.132	0.093
I–1	0.302	0.097	0.179	0.387
I–2	0.155	-0.048	0.004	0.149
I–3	0.267	0.232	0.229	0.192
I–5a Reward	0.376	0.084	0.078	0.137
I–5c Approve	0.376	0.403	0.443	0.486
I–5 Punish	0.281	0.179	0.154	0.119
Statements	4	11	10	35
Word Count	7707	40420	38725	

bin Laden A includes all statements, bin Laden B excludes the 10/18/03 statement

avoid collinearity (the value of these six indices for any one subject will always total unity) and the I–5Re, I–5Ap and I–5Pu variables were chosen because of their direct significance to the presumptions of tactical utility made regarding terrorist organizations. Initial tests also indicated that the excluded variables often exhibited large skew and / or kurtosis making their inclusion in t–tests problematic.

The three philosophical indices seem largely coherent. All philosophical index scores vary from the state leader mean in the same direction and most are similar in degree. The Zawahiri scores however are less extreme in each case than the rest of the al–Qaeda leadership. This is more pronounced in the I–1 and I–2 indices (strategic and tactical inclinations for self) in which Zawahiri shows a more cooperative position. He approaches the state leader mean value for I–1 index and his I–2 index differs in the opposite direction to the others.[109] There is also a much larger spread of values for the I–1 and I–2 indices than there are for the P–1 and P–2 indices so this may be part of a pattern of greater instrumental differentiation within al–Qaeda. The I–3 index (risk acceptance) also shows evidence of a lack of coherence with both the Abu Ghaith and Abu Jandal statement groups indicating risk acceptance lower than that of the state leaders in contrast to the higher risk acceptance for the other members of al–Qaeda. With regard to the I–5 tactical utility indices, there is a marked difference between the values obtained for bin Laden and the other leaders. Bin Laden's scores indicate a lower utility of Reward, higher utility of Approve, and a much lower utility of Punish tactics than the rest of al–Qaeda. Bin Laden's scores, particularly for the I–5c (Approve) index are much closer to the state leader means and indicate, counter–intuitively, that bin Laden exerts a moderating influence upon the behaviors of al–Qaeda. At face value there seems reason to be

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[109] The Zawahiri statement group includes the lengthy (word count 6302) letter to Zarqawi dated 7/9/2005. As correspondence to an affiliated group, this statement may be suspect in its values as both "other" and "self" references are likely to be indicative of greater support levels than would public statements directed at a presupposed hostile "other". This was checked by comparing the values obtained from that statement with the values obtained from the other three Zawahiri statements (total word count 1405). Zawahiri is often credited with having co–authored the 2/23/1998 statement attributed in these analyses to bin Laden so a check was also made of the indices obtained from the other three Zawahiri statements and the 2/23/1998 statement. The letter to Zarqawi radically alters the indices for Zawahiri which otherwise would appear directly in line with the other al–Qaeda observations. Unfortunately these tests were not performed until after the cluster and t–tests from this section had already been completed. Several Zawahiri statements are also available from 2006 and could be coded at a later date for a better indication of the beliefs espoused by Zawahiri.

suspect of the presumed coherence of al–Qaeda's operational code. However, as was indicated in chapter four's comparison of al–Qaeda to state leaders, giving equal weight to the six leaders is suspect because of the limited words counts used to achieve the individual operational codes of the non–bin Laden leaders. Therefore additional exploration of belief system coherence disaggregates the bin Laden operational code scores into scores for individual statements (or small sets of temporally proximate statements) and treats the other leaders as singular statements.

A hierarchical cluster analysis of the al–Qaeda statements (organized by leader[110]) shows a primary division of the Abu Ghaith statement group (GHH), the statement group with unknown attributions (UNK), the Zarqawi statement (ZAR), the bin Laden statement of 10/18/2003 (OBL03b), and the bin Laden statement group from October 2001 (OBL01a).

All other bin Laden statements, the Abu Jandal statement, and the Zawahiri group of statements form a distinct separate cluster. This is a further indication that there is a significant gap between the belief systems expressed by Osama bin Laden and others within the al–Qaeda organization. Note however that the Zawahiri statement group also appears grouped with the bin Laden statements. Given the prominence attached to these two individuals as the guiding philosophers of the al–Qaeda cause, finding them grouped in the same cluster is not entirely surprising. However, the preceding analysis did indicate the distinctiveness of Zawahiri on most indices.

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[110] See Appendix Two for a description of how statements were classified and a listing of the statements and appropriate subgroupings.

The averaging form of cluster analysis demonstrates this by segregating the Zawahiri

statement group from the rest of the bin Laden statements in this cluster.

Graph 5-2 – Dendrogram of the Hierarchical Cluster Analysis of al–Qaeda Leaders
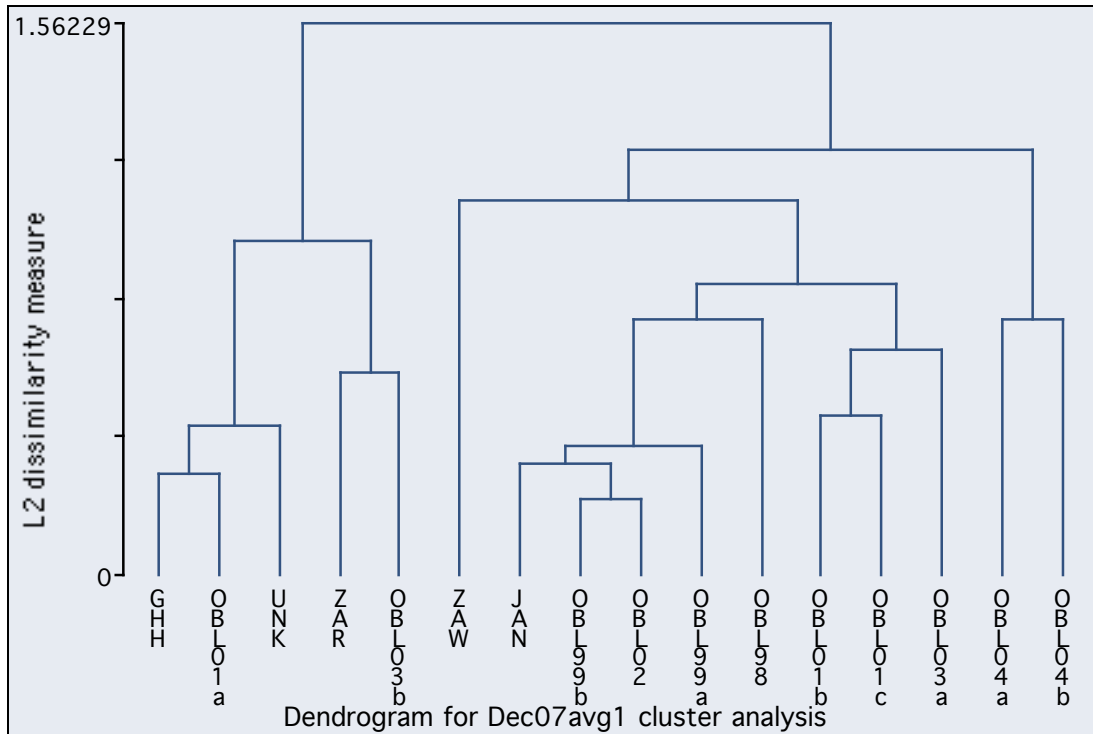
A non–hierarchical cluster analysis (k means – 3 clusters specified) sheds a little more light

on these divisions.

Cluster One	Cluster Two	Cluster Three
Ghaith group (GHH) Unknowns group (UNK) Zarqawi statement (ZAR) bin Laden group A (OBL01a) bin Laden 10/18/03 (OBL03b)	Abu Jandal 8/3/2004 (JAN) bin Laden 2/23/98 (OBL98) bin Laden 1/3/1999 (OBL99a) bin Laden 6/10/1999 (OBL99b) bin Laden 12/26/01 (OBL01c) bin Laden group C (OBL02) bin Laden 2/11/2003 (OBL03a)	Zawahiri group (ZAW) bin Laden group B (OBL01b) bin Laden group D (OBL04a) bin Laden 10/30/2004 (OBL04b)

There is still a clearly demarked "other–leaders" grouping (Cluster One) that includes the same statements as did the hierarchical cluster analysis. However the remaining statements are subdivided somewhat differently from that analysis. A second cluster (denoted as Cluster Two) is composed of the Abu Jandal statement (JAN) and the three pre–9/11 Osama bin Laden statements (OBL98, OBL99a, OBL99b), bin Laden's 12/26//01 statement (OBL01c), the Osama bin Laden statement group from late 2002 (OBL02), and his 2/11/2003 statement (OBL03a). The remaining cluster (Cluster Three) is made up of the Zawahiri statements (ZAW), the immediately post–9/11 bin Laden statement group (OBL01a) and bin Laden's statements from 2004 (OBL04a, OBL04b). This would seem to indicate additional support for the contention that the leadership of bin Ladin and Zawahiri is important and distinct from other leadership within al–Qaeda. It also lends credence to the proposition that 9/11 was a defining feature for bin Laden, the other leaders are more distinguishable by personal differences than by events affecting the organization. The Abu Jandal statement may seem problematic to this division but this is a statement from one of bin Laden's former bodyguards and references back to the pre–9/11 period. It may very well be a reflection of beliefs more in common with the prior period than with the period at which the interview was taken (August 2004).

While the cluster analyses provide initial indications of al–Qaeda belief system subdivisions, the significance of those divisions cannot be determined without closer analysis. As in the previous chapter t–tests are used to determine the difference of means between clusters of statements. While some degree of difference is expected between the leadership groupings, it is expected that these differences will be only weakly significant owing to the contention of the coherence of belief structure within a terrorist organization particularly one with a

relatively small, leadership in–group. The previous analyses indicated that this presumption may be incorrect and that there may be significant differences. If so, isolation of those differences would provide a valuable insight into al–Qaeda leadership. The initial t–tests are performed as a comparison of bin Laden statements to those of the other leaders. This is followed by a subsequent test of groupings suggested by the above cluster analyses.

Both the P–1 and I–5f Punish indices show significant difference of means at better than 0.10 level while both I–2 and I–5a Reward are significant to at least the 0.15 level. Three other indices come close to these levels including the P–2 (0.24), I–1 (0.22), I–5c Approve (0.16) indices. Only the P–3 (Future Predictability) and I–3 (Risk Acceptance) display no real significant difference in value. The P–1 index shows significant difference at the 0.08 level between the statements from bin Laden and from other leaders within al–Qaeda, with the bin Laden statements indicating a perception of the political universe as more conflictual. Although the statements from other al–Qaeda leaders indicate a less conflictual world view than that expressed by bin Laden, this view is still significantly more conflictual than that of the state leaders (significant at the 0.00 level).

Table 5-3 – Comparison of Osama bin Laden Statements to Other al–Qaeda Statements

Index	Group	Mean	Std Deviation	Significance
P–1 View of the Political Universe	bin Laden Other State Leaders	-0.251 -0.105 0.280	0.109 0.140 0.195	0.080
P–2 Intensity of Pursuit of Goals by Others	bin Laden Other State Leaders	-0.277 -0.205 0.133	0.090 0.110 0.148	0.245
P–3 Predictability of the Political Future	bin Laden Other State Leaders	0.131 0.122 0.093	0.036 0.326 0.234	0.649
I–1 Optimal Approach to Goals for Self	bin Laden Other State Leaders	0.097 -0.151 0.387	0.392 0.336 0.226	0.225
I–2 How Goals Most Effectively Pursued	bin Laden Other State Leaders	-0.048 -0.256 0.149	0.242 0.221 0.151	0.126
I–3 Risk Acceptance Level	bin Laden Other State Leaders	0.232 0.186 0.192	0.123 0.061 0.089	0.339
I–5a Reward Utility of the Reward Tactic	bin Laden Other State Leaders	0.084 0.130 0.137	0.081 0.026 0.065	0.114
I–5c Approve Utility of the Approval Tactic	bin Laden Other State Leaders	0.403 0.287 0.486	0.236 0.656 0.111	0.158
I–5 Punish Utility of the Punish Tactic	bin Laden Other State Leaders	0.179 0.382 0.119	0.132 0.065 0.087	0.001

N–OBL = 11   N–Other = 5   N–State Leaders = 35

The P–2 index between bin Laden and the other leaders differs only at the 0.24 level and the

P–3 index does not differ significantly (0.65) between the two groups. While there is some

degree of difference in the perception of how conflictual the political universe is and a lesser

degree of difference in the perception of how others pursue their goals, the statements from other al–Qaeda leaders and those of bin Laden are essentially similar. Both perceive a more conflict laden world than do state leaders. Both perceive others as more intense in the pursuit of those conflict strategies than do state leaders and they both assume a higher degree of future predictability than do state leaders. Examination of the instrumental indices follows to determine whether or not these differences in degree of perception are mirrored by differences in the instrumental beliefs.

Although the philosophical indices indicated that non–bin Laden leadership within al–Qaeda perceive the world as less conflictual, the reaction of those other leaders to that world is significantly more conflict laden than is indicated by the bin Laden indices. The scores for other al–Qaeda leaders for strategic emphasis (I–1) and tactical emphasis (I–2) are both lower than they are for bin Laden, although only weakly so at a 0.22 and 0.13 significance level respectively. This indicates that although bin Laden's perception of the political universe is more conflictual than his peers, he may actually be less inclined toward the use of violent action than are his peers. However, bin Laden's scores for these indices are still significantly lower than those of the state leaders so this represents only a difference in the degree of conflict emphasis rather than reflecting strongly divergent strategic and tactical approaches between al–Qaeda leaders. With regard to risk acceptance, although the bin Laden score is higher, the difference of means is not significant (0.34) indicating no detectable difference in risk acceptance levels.

In all three of the tactical utility indices, there is significant difference between the scores obtained for bin Laden and the others. The I–5 Reward, I–5 Approve, and I–5 Punish indices

differ at the 0.11, 0.16, and 0.001 levels respectively. The scores obtained for bin Laden display a strong tendency to shift away from deeds toward words in comparison to the other al–Qaeda leaders. This trend also held true across the non–reported indices. The other al–Qaeda statements show exactly the opposite. Preference amongst the non–bin Laden leaders is toward action rather than words, and while this preference is largely in favor of conflictual action (I–5 Punish), the I–5 Reward utility also shows a value that does not differ significantly from state leaders. Again this was true across the non–reported indices as well. Such a high utility attached to the tactics of reward runs contrary to behavioral expectations regarding these kinds of organizations. The I–5 Punish and I–5 Approve indices for bin Laden differ from the state leaders at the 0.18 and 0.28 significance level, indicating similar utilities to those of the state leaders. These same indices for non–bin Laden statements differ from the state leader scores to a much higher level.

While bin Laden's utility for the Punish tactic is clearly higher than that for state leaders, it is also significantly lower than that of al–Qaeda's other leadership members. It seems obvious that the perceived high utility of this tactic by al–Qaeda as a whole is being driven by these other influences. This reiterates the evidence from the preliminary examination of al–Qaeda leadership that indicated that bin Laden may have a moderating influence upon the behavior of the organization. This indicates a cautionary note regarding the removal of bin Laden. Since the non–bin Laden score for this index approaches the maximum value found for state leaders (0.40) the removal of bin Laden could well serve to increase al–Qaeda's already heavy reliance upon the Punish tactic. Coupled with the differences in the I–1 and I–2 indices one can be largely assured that the death or capture of bin Laden will exacerbate this commitment to violent action.

The cluster analyses performed at the introduction to this section suggested an alternative grouping of statements, in particular the inclusion of the Zawahiri block of statements and the Abu Jandal statement with bin Laden's statements along with the moving of the unusual bin Laden statement of 10/18/2003 to the alternate leader section (keeping the OBL01 statement group with the rest of the bin Laden statements was done because of its proximity to 9/11). If, as is suspected, the bin Laden and Zawahiri grouping shows improvement in the significance of the difference of means between the two clusters it implies that the primary leadership difference is not between bin Laden and all other al–Qaeda leaders but rather that bin Laden and Zawahiri form a singular cluster of belief expression that contrasts with those others.

All but two indices show increased significance in the difference of means between the bin Laden & Zawahiri group (LDR_II) and other (LDR_I) as opposed to bin Laden and other. In the second set of tests, six of the nine indices tested show significance at the 0.10 level or better, as opposed the initial test in which only two indices were significant at that level. Additionally, the difference noted in the I–1, I–2, I–5 Approve and I–5 Punish indices were significant at the 0.02 level or better in the second test. Only I–5 Punish index was significant to that level in the initial test. Thus while the initial difference of means tests suggested that the removal of bin Laden might result in a significant radicalization of al–Qaeda, this second set of tests suggests that the prevailing belief system within al–Qaeda may be more resilient. However, both sets of tests indicate that beliefs expressed by Abu Ghaith, Zarqawi, and the unknown authors (LDR_I) do differ significantly from al–Qaeda's primary two spokesmen in their beliefs regarding the utility of violence.

Table 5-4 – Leadership Divisions Suggested by Cluster Analyses

Index	Group	Mean	Std Deviation	Significance
P–1				
View of the	LDR_I:	-0.230	0.087	0.139
Political Universe	LDR_II:	-0.133	0.141	
	State Leaders:	0.280	0.195	
P–2				
Intensity of Pursuit	LDR_I:	-0.272	0.103	0.200
of Goals by Others	LDR_II:	-0.204	0.075	
	State Leaders:	0.133	0.148	
P–3				
Predictability of	LDR_I:	0.111	0.007	0.062
the Political Future	LDR_II:	0.134	0.038	
	State Leaders:	0.093	0.234	
I–1				
Optimal Approach	LDR_I:	-0.450	0.239	0.005
to Goals for Self	LDR_II:	0.176	0.278	
	State Leaders:	0.387	0.226	
I–2				
How Goals Most	LDR_I:	-0.443	0.136	0.002
Effectively Pursued	LDR_II:	-0.003	0.163	
	State Leaders:	0.149	0.152	
I–3				
Risk Acceptance	LDR_I:	0.201	0.058	0.642
Level	LDR_II:	0.223	0.122	
	State Leaders:	0.192	0.089	
I–5a Reward				
Utility of the	LDR_I:	0.131	0.019	0.097
Reward Tactic	LDR_II:	0.087	0.079	
	State Leaders:	0.137	0.065	
I–5c Approve				
Utility of the	LDR_I:	0.183	0.125	0.018
Approval Tactic	LDR_II:	0.428	0.189	
	State Leaders:	0.486	0.111	
I–5f Punish				
Utility of the	LDR_I:	0.415	0.039	0.000
Punish Tactic	LDR_II:	0.185	0.124	
	State Leaders:	0.119	0.087	

N–LDR_I = 4   N–LDR_II = 12   N–State Leaders = 35
LDR_I: GHH, ZAR, OBL_10/18/03
LDR_II: ZAW, JAN, all other OBL statements

This is especially troubling given the extreme levels of these indices that are indicated by the

non–bin Laden & Zawahiri group (LDR_I). The mean value for the P–1, P–2, I–1, I–2, and

I–5 Approve indices for this group all fall below the minimum values obtained from state leaders and the I–5 Punish value indicates a utility of punish actions above the maximum noted for state leaders. In contrast none of the index means for the bin Laden & Zawahiri group (LDR_II) fall outside the state leader maximum or minimums. They do however still differ significantly from the state leader values in most instances.

The LDR_I group is largely dominated by the size of the Zarqawi document. Total word count for this grouping is 8907 of which 4603 comes from the one Zarqawi statement. None of the individual statements that make up the rest of the statements in LDR_I is a full 1000 words in length. Thus some of this extreme difference may be representative of a division between the organizational beliefs of al–Qaeda and those of Zarqawi. This may be less an internal al–Qaeda difference and more an example of the difference in beliefs between al–Qaeda and an affiliated organization. It also seems reasonable to assume that Zarqawi's direct involvement in an active conflict situation is accentuating his conflict emphasis, heightening the differences between the two groups. This signifies a greater coherence for al–Qaeda than previously indicated although no such logic can be applied to the statements from Abu Ghaith or the unknown al–Qaeda authors. Hence one cannot avoid the conclusion that there is a disjuncture between the beliefs of certain elements of al–Qaeda. The degree of disjuncture is however questionable. The inclusion of the bin Laden statement from 10/18/2003 with the LDR_I group[111] indicates that these differences are not outside the bounds of the beliefs expressed by bin Laden. Additionally, as previously indicated, most differences, although significant, are still a matter of the degree to which their beliefs vary

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[111] Recall that this statement group was derived from a cluster analysis which indicated that the 10/18/2003 bin Laden statement was more similar to the rest of the statements in the LDR_I group than it was to the rest of bin Laden's statements, its inclusion is not arbitrary.

from the state leader indices and do not represent fundamental strategic or tactical differences.

Summary

There is little to suggest that the belief system espoused by bin Laden differs to a great degree from the other al–Qaeda spokesmen, particularly Zawahiri. Despite face value differences in the indices between leaders, only the P–1 and I–5 Punish indices showed significant differences when examined via t–test between bin Laden and other al–Qaeda leadership. However, use of the leadership groupings suggested by cluster analyses did result in a number of indices displaying significant difference of means. However, none of these represented fundamental differences in beliefs. Only the I–3 (risk acceptance index) shows a difference in index direction about the state leader mean for the LDR_I and LDR_II groups, and the difference in risk acceptance between those two groups is not significant (0.34 level). There is also some evidence to indicate a degree of coherence within al–Qaeda's expressed belief system across its various spokesmen. For the most part the differences within al–Qaeda are much less significant than the differences noted between the overall al–Qaeda belief system and the mean values for state leaders. Thus while the differences within al–Qaeda may be significant, they also appear to be a matter of degree of difference from the state leader scores and do not represent radical departures from the overall belief structure laid out in chapter four. To the extent that these differences do exist, there is the strong potential that they are artifacts of the difference between the belief system espoused by Zarqawi and that of al–Qaeda. While there may be a commonality of interest and a deliberately expressed affiliation of al–Qaeda in Iraq and that of al–Qaeda, it is likely incorrect to actually consider the Zarqawi movement part of the direct al–Qaeda network. Further, there is nothing to

suggest in these differences that the removal of certain leadership elements of al–Qaeda would lead to an alternative belief structure more amenable to traditional international relations strategies. In fact, exactly the opposite seems true. To the extent that differences are found within the operational code of al–Qaeda leadership, removal of the primary leaders (bin Laden and Zawahiri) may well result in a greater shift toward the utility of violent action: a hardening of the belief structure outside of any potential other effects generated by the removal of these individuals. Several conclusions are therefore apparent from applying the operational code approach to leadership divisions within al–Qaeda. First, the evidence for the presence of a coherent belief structure is mixed. Second, the differences between Zarqawi and al–Qaeda's primary leadership (bin Laden and Zawahiri) call into question the degree of affiliation between the al–Qaeda in Iraq and al–Qaeda organizations. Third, to the extent that the beliefs of bin Laden and Zawahiri do differ from other al–Qaeda elements, it is apparent that removal of these individuals is likely to lead to increased radicalization of the organization.

Chronologic Analysis of al–Qaeda's Operational Code

This analysis seeks to determine the presence of shifts in the belief structure of al–Qaeda over time, the presence or absence of defining moments in al–Qaeda's history, and whether the belief structure is responsive to periods of threat and success for the organization. As with the previous analysis, the nature of the data imposes certain restrictions on this analysis. In particular the sporadic nature of the observations and the small number of statements, prohibit the use of a conventional time series analysis and limit the ability to control for differences amongst the various spokesmen. Therefore statements were grouped

chronologically rather than by leader and the resultant groupings are somewhat different than those used in the preceding leadership analyses.[112]

The first chronologic analysis subdivides the grouped statements into four separate time periods and compares the average scores across those periods. The second analysis makes use of hierarchical and non–hierarchical clustering routines to discern if any major chronologic groupings are apparent. This is followed by a t–test of indices between the pre–9/11/2001 and immediately post–9/11/2001 statement groups. The section concludes with a general examination of al–Qaeda response to successful operations and external threats and a t–test between indices derived from statements grouped into the success and threat categories.

Initial exploration of the chronology of al–Qaeda's operational code is undertaken by subdividing the statements and statement groups into four categories chosen on the basis of maintaining approximately equivalent time periods, approximately equivalent numbers of observations, and by utilizing naturally occurring gaps in the statement record. A fifth group was formed in initial testing that made use of Zawahiri statement from 7/9/05 as well as two other 2005 statements but this group was dropped after it was revealed that the unusual nature of that document as well as its high word count were dramatically altering the index values received for that period. It was clear that the difference in index scores was due to the nature of the communiqué rather than an actual reflection of a major shift in al–Qaeda's belief system. Average index values and standard deviations are reported for each chronologic group in the following table.

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[112] See Appendix Two for a description of how statements were classified and a listing of the statements and appropriate subgroupings.

Table 5-5 – Chronologic Groupings of al-Qaeda Operational Codes

Index Mean & Std. Deviation	Group One 2/1998–8/2001 n=3	Group Two 9/2001–8/2002 n=4	Group Three 9/2002–10/2003 n=3	Group Four 11/2003–10/2004 n=4
P–1	-0.246 0.053	-0.207 0.060	-0.306 0.216	-0.212 0.036
P–2	-0.301 0.063	-0.173 0.065	-0.304 0.152	-0.256 0.069
P–3	0.138 0.018	0.112 0.023	0.124 0.015	0.138 0.070
I–1	-0.056 0.255	0.195 0.265	-0.088 0.608	0.181 0.482
I–2	-0.097 0.047	-0.050 0.142	-0.246 0.308	0.033 0.318
I–3	0.177 0.023	0.254 0.150	0.309 0.186	0.191 0.086
I–5a Reward	0.048 0.050	0.054 0.047	0.056 0.076	0.155 0.065
I–5c Approve	0.301 0.261	0.524 0.176	0.392 0.376	0.361 0.206
I–5f Punish	0.159 0.138	0.200 0.091	0.276 0.152	0.209 0.200
Statements Word Count	3 12066	9 14597	7 9937	5 15784

Several general observations are immediately obvious.[113] The coherence of scores among the philosophical indices appears much greater than that of the instrumental indices and all are congruent with expected values for terrorist organizations. The instrumental indices display greater differentiation both across and within the four chronologic groupings. Although there are exceptions, most instrumental values are in line with expected values for terrorist organizations. There is also no clear pattern to the differentiation shown in the instrumental

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[113] A cautionary note is in order here. The sample sizes for these values are extremely small and in many cases the standard deviation for the index is quite large. The inferences drawn regarding these four chronologic groups are therefore quite tentative and should only be taken as potentials to be further investigated.

indices. Comparing the high and low group values for each index via t–test demonstrated no significant difference of means except for the I–5 Reward index (low value of 0.048 for Group One and high value of 0.155 for Group Four) which was significant to the 0.06 level. Even granting the low number of observations for each chronologic group and the generally high standard deviations, this seems to indicate that there is high coherence over time of the operational code for al–Qaeda, with the greatest alterations occurring in the instrumental indices and in particular the tactical utility scores.

Group One corresponds to the pre–9/11 period for al–Qaeda, a kind of baseline position preceding al–Qaeda's ascension to the forefront of militant Islamists. Two scores stand out as unusual here. First, the I–3 index indicates a risk acceptance level on par with that of state leaders. The second is the tactical utility of conflictual action (I–5 Punish) which, while somewhat higher than the state leader mean does not differ significantly from that score. These two values are clearly not in line with expected values for terrorist organizations.

Group Two includes the immediate post–9/11 phase as well as the post–US invasion of Afghanistan and destruction of al–Qaeda infrastructure within that state. This is an unusual period that marks both extreme highs and lows for the group's success. Although it is possible that the mere fact of al–Qaeda survival of the invasion may have been perceived by the group as a period of success. Unusual is the extremely high level of utility attached to verbal cooperation (I–5 Approve) during this period. This figure is substantially higher than at any other period. It cannot be attributed as an artifact of any specific unusual statement or action unless it is a reflection of the approval voiced by al–Qaeda spokesmen for the actions taken on 9/11 and in the defense of Afghanistan. In that case a high utility should also be

indicated for conflictual actions (I–5 Punish) and while the value is higher than the pre–9/11 score it does not appear unusually high.

Group Three corresponds to a regrouping period for the organization and the initial al–Qaeda response to the US invasion of Iraq. This was a remarkably quiet period for al–Qaeda in terms of major actions thus it is surprising that the instrumental indices indicate an intense pursuit of conflictual strategies (I–1 & I–2), very high risk acceptance (I–3) and a very high utility for the Punish tactic (I–5 Punish). This period also corresponds to an al–Qaeda perception of the political universe at its most conflictual (P–1 & P–2) which may be pushing the instrumental indices in the directions indicated as a way of responding. This picture of an extremely conflictual political universe may also be reaction to the US policy toward Iraq during this period. Although not referenced directly until after the actual invasion, US pressure on Iraq with regard to weapons of mass destruction and positioning for the invasion are, at least plausibly, being reflected in al–Qaeda's beliefs for this period.

Group Four is essentially a post–US invasion of Iraq period and the indices may be reflective of an al–Qaeda more concerned with aiding and assisting affiliated movements than undertaking operations itself. The I–1 and I–2 indices are, by a wide margin, indicative of al–Qaeda at its most cooperative and do not differ significantly from the state leader means. This is further evidenced by the unusually high value obtained for the I–5 Reward index which actually exceeds the state leader mean and is directly counter to expectation for a terrorist organization.

Cluster Analyses of the Chronologic Data

A hierarchical cluster analysis (utilizing averaging linkage) produces a dendrogram which

groups the bin Laden 10/18/2003 and statement group D (Zarqawi's 4/6/04 and bin Laden's

4/15/04 statements) together in a couplet isolated from the other statements at a high level of

dissimilarity.

Graph 5-6 – Dendrogram of the Hierarchical Cluster Analysis of
Chronologically Grouped al-Qaeda Statements
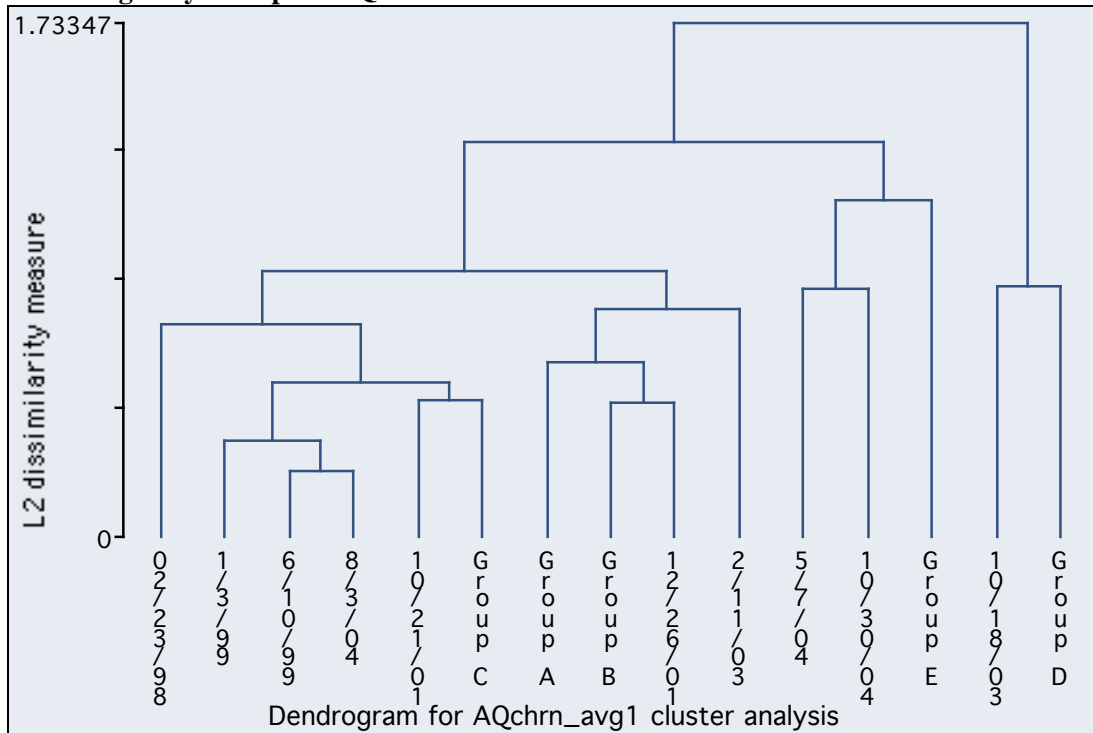
The rest of the statements are divided into two subgroups, one of which contains the

remaining 2004 and beyond statements, the other is further subdivided into two groups. The

first of these two groups is largely composed of the immediate post–9/11 responses found in

Group A, Group B, and the bin Laden statement of 12/26/2001. The other group includes the

statements pre–9/11 but also the immediately post–9/11, 10/21/2001 bin Laden statement as

well as the statement group from 2002 (Group C) and the 8/3/2004 Abu Jandal statement.

There are several items of note in this chronological clustering. The first is the odd presence of the 10/18/2003 and Group D statements as outliers. The 10/18/2003 bin Laden statement was noted as unusual in the leadership cluster analysis[114] and statement group D is composed of two statements that showed as dissimilar in the leadership cluster analyses as well. In the absence of other obvious similarities between these three statements, it may be that their presence as outliers results only from dissimilarity to other statements and does not represent a commonality between them. The second notable feature of the cluster analysis is the distinct cluster of statements from 2004 and later. The distinctiveness of these statements was also indicated in the previous leadership cluster analyses. The differentiation here might well have been indicative of an incremental alteration in the al–Qaeda belief structure over time, providing evidence of an evolution of those beliefs. The degree to which this cluster differs from the remainder of the statements is explored via t–test between the scores obtained pre–2004 and those obtained post–2003. The results indicate that no index means differ better than at a 0.24 level. Attempting to improve the results by eliminating the anomalous 10/18/03 and Group D statements led to only one significant difference: I–2 (intensity of self pursuit of goals) shifted toward a less intense pursuit of conflictual options at the 0.09 significance level. Given this limited result, the generally high level of variation in the I–2 scores, and the limited sample size for the t–test, this does not seem indicative of a general evolution of belief system. A third feature of note is that the last two clusters show strong similarities to the pre–9/11 and post–9/11 division that was noted in the leadership analyses. This lends further credence to this event being an important distinction chronologically for al–Qaeda.

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[114] This statement is composed of two separate messages, one targeting young Muslims and the other targeting the American people and troops in Iraq. It could be that this duality of audience is causing an odd combination of operational code index values but there is no obvious reason to believe this is the case.

A non–hierarchical cluster analysis (k means – 3 clusters specified) produces very similar results.

Cluster One	Cluster Two	Cluster Three
10 / 18 / 2003 Group D (4 / 2004)	2 / 23 / 1998 1 / 3 / 1999 6 / 10 / 1999 10 / 21 / 2001 Group C (2002) 8 / 3 / 2004	Group A (10 / 2001) Group B (11 / 2001) 12 / 26 / 2001 2 / 11 / 2003 5 / 7 / 2004 10 / 30 / 2004 Group E (8 / 2005)

The previously identified Group D and 10/18/2003 couplet is again identified as outliers, forming their own cluster. The second cluster (Cluster Two) contains the pre–9/11 bin Laden statements but also the post–9/11 bin Laden statement from 10/21/2001, the 2002 Group C, and the Abu Jandal statement of 8/3/2004. The last of the clusters (Cluster Three) contains all but one of the immediately post–9/11 statements (bin Laden's 10/21/01 statement), and matches those with all but one of the statements dating 2003 and later (Abu Jandal's 8/3/2004 statement). Both the hierarchical and non–hierarchical forms of cluster analysis point to the 10/18/2003 and Group D statements as outliers. They also provide some evidence that the events of 9/11 may provide a point around which the belief structure of al–Qaeda altered. However the degree of that change cannot be determined from cluster analysis alone. Additional non–hierarchical cluster analyses were performed specifying four and five clusters. Neither provided greater insight into chronological divisions, although the five cluster analysis did result in one large cluster of statements largely composed of pre–9/11 statements and a smattering of later statements. This large single cluster may be indicative of a group of statements not influenced by the success of the 9/11 operation while the division of other statements into relatively small clusters or singletons may be indicative that the

success of the 9/11 operation bred greater diversification in the al–Qaeda belief system. If true, there should be significant differences between al-Qaeda's pre– and post– 9/11 operational codes.

As a follow–up to the results of the cluster analyses, a series of t–tests is performed comparing the pre–9/11/01 statements to the 2001 and 2002 statements. While expectations were that the 9/11/01 actions would provide a significant point of difference in the al–Qaeda belief system, the results of these t–tests rather strongly argue against this contention. Only the P–3 index (predictability of political future) indicates a significant difference of means between the two groups at anything better than the 0.30 level (P–3 was at 0.14), denoting a decrease in system predictability between the two time periods. However given the very small sample sizes (Pre–9/11/01 = 3, Post–9/11/01 = 5) this should not be taken as conclusive evidence that the 9/11 operations did not impact the belief system of al–Qaeda. No other dates are suggested by the cluster analyses as potentially having had a significant impact upon al–Qaeda's operational code.

Organizational Evolution Tests

The following applies a basic organizational evolution theory to classify chronologically organized al–Qaeda statements into stages of organizational existence, and determine whether those stages can be differentiated on the basis of alterations in the operational code. The goal of this analysis is to determine if changes in the operational code indicate relevant shifts in the organizational life cycle of al–Qaeda. If so, then the operational code approach could be used to determine where, along an evolutionary cycle, al–Qaeda perceives itself. The benefit of which would be the ability to use an at–a–distance measure in order to determine periods

of significant threat to the organization as well as periods potentially open to organizational fragmentation, both of which have significant counter–terrorism implications.

According to Worchel and Coutant (2004, p. 186-189) organizational development moves cyclically between four stages, with situational factors such as the level of goal achievement and threat pushing movement from one stage to another. These four stages are *identification*, *productivity*, *individuation*, and *decay*. The *identification* stage is characterized by strong pressures for conformity, restricted new member acceptance, low tolerance for dissent, high susceptibility to groupthink and a push toward action. Members seek to accentuate their group identity in order to differentiate it from competing identity constructs (Worchel & Coutant, 2004, p. 187). Groups in the *productivity* stage become more concerned with goal achievement. Internal group divisions originate, based upon operational needs. Ideological concerns, predominant in the *identification* stage, become secondary to the instrumental relation of actions to goals (Worchel & Coutant , 2004, p. 187). The group becomes even more action oriented and group success is likely to result in membership growth. The third stage, *individuation*, is marked by the pressure to develop unique identities within the group. The communal identity has either served its purpose, resulting in goal achievement, or has become tainted by the inability to attain group goals. In either instance "individuals demand direct compensation for contributions to the group" as their intra–group and personal identity constructs increase in saliency (Worchel & Coutant, 2004, pp. 187-188). Movement to the *individuation* stage is often predicated upon either significant obtainment of group goals or demonstrated inability to achieve those goals. In the latter case individuals may seek alternative goal achievement strategies, provoking non–operational divisions within the organization. Stage four, the *decay* stage, is distinguished by increased fragmentation,

membership defection from the organization, the blaming of leadership for set backs, and the potential questioning of the continued need for the organization. Destruction of the organization at this point is likely. The group identity is no longer highly valued or has been replaced by alternative group identities.

The effect of threat upon an organization is the tendency to push a group toward either the *identification* or *individuation* stages dependent on the source and target of this threat. External threats to organizational survival are most often met by reactivation of ideological concerns, retrenchment in core beliefs, and a general retreat to the *identification* stage. Internal threats, particularly those targeting organizational subsets or specific individuals, more frequently result in movement toward *individuation* (Rothgerber, 1997; cited in Worchel & Coutant, 2004, p. 188).

Statements and statement groups from the chronologic listing were placed into one of three categories. The first were time periods deemed to be indicative of successful operations on the part of al–Qaeda, and are equated with al–Qaeda in an *individuation* stage. The second were periods of readily identifiable threats to the group's existence. These were equated with al–Qaeda in an *identification* stage. The third, denoted as neutral, indicated time periods that could not be otherwise classified, and were equated with al–Qaeda in a *productivity* stage. It is notable that the resultant breakdown of statements does not correspond to any of the previous groupings indicated by any of the cluster analyses. Care was also given to check if any of those clusters could be explained in terms of stages of group evolution. There appeared to be no obvious correlations other than the previously indicated importance of the 9/11/2001 date.

Periods of Threat	Neutral Periods	Periods of Success
Identification	*Productivity*	*Individuation*
Group B (11 / 2001)	6 / 10 / 1999	2 / 23 / 1998
12 / 26 / 2001	Group C (2002)	1 / 3 / 1999
Group D (4 / 2004)	5 / 7 / 2004	Group A (10 / 2001)
2 / 11 / 2003	8 / 3 / 2004	10 / 21 / 2001
10 / 30 / 2004	10 / 18 / 2003	
Group E (8 / 2005)		

Absent indicators of internal threats to al–Qaeda leadership, the presence of threat to al–Qaeda was taken to be evidence of an organization in the *identification* stage. This led to specific expectations regarding the values attached to the operational code indices for this period. Since al–Qaeda perceives the universe as a highly conflictual arena, threats to the organization should confirm this, thus reaffirming a low P–1 value. Intensity of that pursuit should also be perceived as higher since it is manifesting as a direct threat to the organization (low P–2). Being anticipated behavior on the part of political others, the predictability of political behaviors index (P–3) should also be high. However, as the philosophical indices are essentially the core values of the organization (demonstrated earlier as being largely coherent across both time and leader) it is possible that shifts in these areas will not be detectable given the data available. It is more likely that this kind of shift would be recognizable from alterations in the instrumental indices. As organizational threats generally result in a shift toward action, it is likely that the intensity with which al–Qaeda pursues its goals (I–2) will increase, resulting in a lower value for that index. Retrenchment, rather than adaptive reaction is generally the course chosen by organizations under threat, making it likely that al–Qaeda's I–3 index (risk acceptance) will also drop. However it is also possible that the drive toward renewed action will trump this tendency resulting in the need to take action regardless of the risk level. To the extent that periods of threat can be identified, the values of the I–3 index

will be instructive as to which pressure is dominant. In terms of tactical utilities, there is a small chance that the push toward action would result in an increased utility for cooperative actions (I–5 Reward). Far more likely, is that, given a return to core ideological values, of which belief in the efficacy of violence is one, al–Qaeda will demonstrate its presence in the *identification* stage with a high emphasis on conflictual actions (I–5 Punish).

As indicated in the preceding discussion of the chronologic cluster analyses, there is evidence to suggest a greater diversification in the operational code of al–Qaeda after the success of the 9/11 operations. I assume that the greater belief system diversity is an indicator that the level of success of the 9/11 operation was enough to propel al–Qaeda out of *identification* and *productivity* and into an *individuation* stage. As with the equation of periods of threat to the *identification* stage, certain expectations arise from the equation of periods of operational success to the *individuation* stage. Groups within the this stage are likely to experience differentiation of their belief system in both goals sought (differentiation based upon previous goals either being met or demonstrated as unattainable) and means used to pursue those goals (if group goals have not been obtained then alternative means of goal pursuit may be sought). Further, the success of the group breeds individual desires for recognition of achievements thus generating further differentiation. There are no clear indications that al–Qaeda has attained a measure of its strategic goals, nor do al–Qaeda statements reflect an admission of unattainability of those goals, so expectations for index scores are based on an assumed differentiation of the means of goal pursuit. These differences should manifest themselves as a greater standard deviation amongst the I–2, and tactical utility indices for this group, than for statements attributed to the threat or neutral groups. Actual values for the indices would

also be expected to indicate a general shift toward cooperative tactics.[115] Decreased utility for

I–5 Punish and increased utility for the Approve (I–5 Approve) and Reward (I–5 Reward)

tactics are therefore expected along with a value of I–2 higher than the Threat or Neutral

categories.

The following table presents the mean values of the operational code indices for each of the

three periods.

Table 5-7 – The Operational Code of al–Qaeda Across Stages of Identification, Productivity, and Individuation

Coded as: Group Stage: n =	Threat **Identification** 4	Neutral **Productivity** 6	Success **Individuation** 5	All Chronologic Groups 15
P–1 Mean	-.304	-.171	-.176	-.208
Std Dev.	.132	.194	.084	.151
P–2 Mean	-.312	-.232	-.226	-.252
Std Dev.	.082	.138	.094	.112
P–3 Mean	.123	.137	.119	.127
Std Dev.	.018	.053	.027	.037
I–1 Mean	.066	.242	-.154	.063
Std Dev.	.335	.326	.409	.375
I–2 Mean	-.116	.043	-.205	-.082
Std Dev.	.205	.222	.218	.229
I–3 Mean	.214	.215	.210	.213
Std Dev.	.131	.082	.101	.095
I–5a Mean	.063	.103	.072	.080
Std Dev.	.061	.084	.057	.069
I–5c Mean	.426	.476	.272	.417
Std Dev.	.245	.113	.276	.237
I–5f Mean	.246	.161	.242	.201
Std Dev.	.155	.118	.158	.138
Statements	7	11	8	
Word Count	16333	26417	16617	

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[115] While it is possible that the greater diversity of beliefs expected from this stage could result in a shift toward even more conflictual tactics, this seems highly unlikely given the already extreme conflict emphasis of al–Qaeda.

Comparison, via t–test, of the Threat and Success categories indicates significant difference of means in the P–1 (0.12) and P–2 index (0.19). No other indices differ significantly at better than the 0.40 level. Comparison between the Threat and Neutral categories reveals no significant difference of means for any index at better than a 0.29 significance level (for the I–2 index). Comparison of the Neutral and Success categories indicate significant difference of means in the I–1 (0.10), the I–2 (0.09) and the I–5 Approve indices (0.13). Given the low observation counts and high standard deviations these results must be considered inconclusive[116] however the fact remains that the variation between these groups remains comparable to the variation within the groups themselves. Provided that these groupings represent realistic expectations for a differentiation of operational codes, the operational code for al–Qaeda seems remarkably coherent particularly since even those indices that differ significantly from one another are still differentiable from state leader means to a high degree and in the directions predicted in chapter four.

To the extent that this classification of statements represents an accurate capture of threat periods for al–Qaeda certain factors stand out. The first, is that there is differentiation among the philosophical indices to a greater degree than expected. The initial estimation that periods of threat would strengthen the perception of an intensely hostile political universe are correct. This factor is taken as evidence that the statements in this category have been correctly identified. The P–3 index remains largely unchanged contrary to expectations but it has remained largely unchanged across several different chronological and leadership groupings thus indicating a relatively non–malleable element of al–Qaeda's operational code. Expectation that differences in the operational code attributable to perception of a period of

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[116] Several of these indices also displayed skew or kurtosis values that indicated substantial deviation from a normal distribution, further eroding confidence in these results.

threat would be more noticeable in alterations to the instrumental indices proved incorrect. The I–1, I–2 and I–3 indices appear in line with the overall scores for al–Qaeda. None of them demonstrate an extreme value that could be expected of an instrumental change caused by threat. This generally was true across the tactical utility scores as well although the I–5 Reward index is the lowest of the three groups and the I–5 Punish index is the highest of the three. As indicated in the previous paragraph these differences are not statistically significant. Contrary to expectation, the presence of organizational threat is more noticeable in alteration to the philosophical indices. The fact that this shift is in the direction of a conflictual political universe reiterates that core to the distinction of this kind of organization from other political actors is an extremely hostile perception of the universe in which they operate. While classification of statements into the threat category and equating that period with a shift back to an *identification* stage for al–Qaeda met with limited success, the classifications into Neutral and Success categories and subsequent linkage of those to *productivity* and *individuation* stages were less successful.

The predictions based on equating operational success with *individuation* simply do not hold. Standard deviations for the instrumental indices are not indicative of substantial differentiation. Further, differences in the I–2 and tactical utility scores are not in the directions expected. It may well be that the operational successes used to form the success group of statements does not capture a true *individuation* stage. This would indicate that either al–Qaeda has not had periods that qualify as success to its membership (highly unlikely), that success is measured by some other standard or, that the level of threat may simply override consideration of success. Measurement of success by a standard other than operational success necessarily implies an instrumental use of these operations and would call

into question the previous chapter's characterization of al–Qaeda as having a strong expressive motivational component.

However assuming that the statements assigned to this category are reflective of the group belief system after operational successes, it is still worthwhile to examine the effects on the indices of successful operations without correlating those to an evolutionary group change. The philosophical indices are largely in line with other values. They are not as extreme as those present in the threat group. The I–1 index indicates a shift toward an even more conflictual strategy, with I–2 index indicating a ramping up of the intensity with which that strategy is pursued. Operational success therefore seems to reinforce the perceived correctness of this strategic approach. This is reinforced by the values of the tactical utilities. After a successful operation, the use of the Approval tactic is depressed sharply while the utilities attached to the Reward and Punish tactics remain largely indistinguishable from periods of group threat (very low Reward, very high Punish) this is in direct contrast with the movements expected of a group in an individuation stage.

With respect to the statements assigned to the neutral period, the philosophical indices are largely indistinguishable from the success categorization while the I–1, I–2 and tactical utility indices show significant differences from the other two groupings. Rather than capturing statements indicative of a separate stage it may simply be the case that this is a collection of statements that do not correspond strongly with either threat or operational success and thus represent a hodge–podge of belief shifts rather than a single category of beliefs. In truth the indices in this category look far more like the expected values for a group within the *individuation* stage than do those for the success category. Standard deviations are generally

up and the instrumental indices all indicate more cooperative tactics. However, given the rather arbitrary criteria of being neither success nor threat related one should not jump to the conclusion that this grouping represents *individuation*. More likely it should be taken as an indication of the ease with which any random cluster of statements may approximate the expectations associated with an *individuation* stage. Given only limited success at equating periods of threat to the *identification* stage, it seems that reliance strictly upon belief system shifts, detected by means of changes in the operational code, to determine al–Qaeda's evolutionary stage of development is largely ineffectual. It is possible that in–group pressures to maintain the communal belief system may act as a kind of buffer against the kind of belief system differences that one might expect to correspond to differing evolutionary stages. Belief system changes may be further attenuated by the ever present level of danger a terrorist organization finds itself in. The result of which may be a belief system that, even under periods of operational success, epitomizes a group in the *identification* or *productivity* stages.

Summary

Analysis of the al–Qaeda belief system across various time periods does indicate a fairly high degree of coherence. Some non–patterned shifts are apparent but they tend to be limited to degrees of difference from the state leader scores and not reflective of substantive belief system alterations. The philosophical indices are most coherent, with a larger degree of variation being present among the instrumental indices. The tactical utility indices display the greatest degree of difference across various chronologic groupings. The results of the non–hierarchical cluster analyses about four and five clusters is suggestive of a general tendency toward greater belief system diversity after 9/11 but no other evidence is supportive of this contention. In fact, only the events of 9/11/2001 seem to indicate any event related

alteration in belief system. However, even this impact is questionable, largely being suggested by the cluster analyses. No specific operational code changes can be demonstrated across the pre– and post– 9/11 periods. Examination of organizational evolution via operational code shifts also met with only limited success. The equation of periods of organizational threat to the group *identification* stage is, at least, plausible. Periods of threat appear to have little impact upon al–Qaeda beyond reiteration of the pre–existing perception of the political universe as highly conflictual. Correlation of statements to the *productivity* and *individuation* stages is less successful. In direct contrast to the expectations of an *individuation* stage, periods of operational success appear to generate increased emphasis on the pursuit of conflictual tactics and largely leave the philosophical beliefs unchanged. No systematic shifts in the belief structure over time are suggested by these analyses. Nor are they able to identify event specific belief system alterations, including alterations caused by the events of 9/11. Further, while the belief structure of al–Qaeda does appear to be responsive to periods of threat and success, these periods do not correspond to an ability to determine alteration between developmental stages for the group.

The Operational Code of Hamas

Analysis of the Operational Code Divisions within Hamas

The process of examining Hamas' internal belief system divisions is similar to the process applied to al–Qaeda. However, despite a much larger statement base (311 separate statements for Hamas) analysis was hampered by two factors. The first is the general brevity of the Hamas statements, most are only several hundred words in length, only occasionally reaching 1000 words or more (36 such statements). This necessitated the aggregation of significantly larger numbers of statements into groups that could be accurately coded.[117] The second is the relatively small number of statements directly attributable to specific leaders. Only eight of the total collected statements for Hamas can be directly attributed to a specific individual within Hamas, all others are either attributed to a specific subgroup (such as the Qassam Military Brigades or Information Bureau) or are attributed only as Hamas. These factors necessitated a different approach to the internal division analyses. Coherence of the belief structure can still be determined by comparison across the operational codes of Hamas leadership, the Qassam Brigades and the non–attributed statements. While the impact of a single individual cannot be explored (as was done with bin Laden) the presence of the non–attributed statements does allow for examination of the degree to which the beliefs of Hamas leadership differ from those presented as representative of the organization as a whole, and for examination of which subgroup, if any, most accurately reflects the overall operational code of Hamas. As with al–Qaeda, a multiple part approach to these comparisons is employed, starting with an analysis of subgroups within Hamas and comparison of the operational codes from those subgroups to the state leader and al–Qaeda operational codes.

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[117] See Appendix Three for a listing of the statements within each statement group.

This is followed by both hierarchical and non–hierarchical cluster analyses as well as t–tests between statement groups suggested by the cluster analyses.

It is expected that the Hamas subgroups will share characteristics in common. In particular the philosophical indices should indicate substantially similar views of how the universe operates. High levels of coherence would be indicated by similarity in the instrumental beliefs as well. However, unlike al–Qaeda where the presumption was a for a highly coherent belief structure, the prediction for Hamas is for greater internal differentiation. This prediction is based upon Hamas' greater behavioral diversity: entrance into the political process, social welfare projects, etc., as well as its use of politicized violence. It is also expected that, unlike al–Qaeda where the differences appeared as degrees of difference from state leaders, the leadership of Hamas will exhibit instrumental indices that approach the state leader means. Analysis of coherence within Hamas is carried out by analyzing belief coherence across organizational subgroups. This is done by isolating statements attributed to the Qassam Military Brigades and comparing the indices from them to the indices generated for Hamas leadership and for the non–attributed Hamas statements. Extreme differences between these groupings would indicate not just a division of tasks within Hamas but also significant differences in beliefs regarding appropriate strategy and tactics amongst the structural elements of the organization.

Separation of the operational codes for various elements of Hamas also allows for comparison of those belief systems to the operational codes derived from al–Qaeda and state leaders. The operational code derived for Hamas in the previous chapter differed significantly from the operational code of al–Qaeda, as well as from the expectations corresponding to

their classification as a terrorist organization. It may be that the elements within Hamas that most closely resemble a terrorist organization are relegated to a specific subgroup, in this case, the Qassam Military Brigades. There is evidence already to support the contention that the beliefs of individuals within this subgroup are distinct from those of the rest of Hamas, particularly with respect to their perceptions of the use of violence (Post, Sprinzak, and Denny, 2003, pp. 180-181). If, as is suspected, the belief system for the Qassam Brigades closely resembles that of al–Qaeda, it would help explain the anomalous instrumental index results obtained for Hamas in the preceding chapter. It would also support the depiction of Hamas as predominantly instrumentally motivated and actively attempting to mitigate the pressures pushing it toward violence as its own end.

Table 5-8 – Operational Codes Across Hamas Subgroups

	Hamas Leadership	Qassam Military Brigades	Hamas non–Attributed	State Leaders	al–Qaeda
n=	6	10	40	35	15
P–1 Mean	.225	-.148	-.020	.280	-.208
Std Dev	.112	.173	.133	.195	.151
P–2 Mean	.072	-.245	-.089	.133	-.251
Std Dev	.104	.108	.102	.148	.111
P–3 Mean	.102	.147	.097	.093	.127
Std Dev	.034	.037	.033	.234	.037
I–1 Mean	.409	.142	.371	.387	.063
Std Dev	.396	.290	.285	.226	.375
I–2 Mean	.206	-.083	.106	.149	-.082
Std Dev	.219	.198	.145	.152	.229
I–3 Mean	.249	.207	.330	.192	.213
Std Dev	.236	.101	.133	.089	.095
I–5a Mean	.196	.057	.071	.137	.080
Std Dev	.151	.075	.076	.065	.069
I–5c Mean	.438	.444	.583	.486	.417
Std Dev	.257	.129	.153	.111	.237
I–5f Mean	.063	.260	.084	.119	.201
Std Dev	.076	.127	.079	.087	.138

The portrayal that emerges is that of a group that seeks to contain the tendencies toward expressive violence through segregation of its more expressive elements into a specific subgroup responsible for conducting violence.

Table 5-9 – Difference of Means Results for Hamas Subgroups

T–test of: Index	Hamas Leaders x Non–Attributed	Hamas Leaders x Qassam Brigades	Hamas Leaders x State Leaders	Qassam Brigades x Non–Attributed	Qassam Brigades x State Leaders	Qassam Brigades x al–Qaeda
P–1	0.001	0.000	0.349	0.050	0.000	0.384
P–2	0.010	0.000	0.244	0.001	0.000	0.894
P–3	0.712	0.032	0.826	0.002	0.200	0.201
I–1	0.831	0.188	0.901	0.042	0.029	0.758
I–2	0.326	0.025	0.569	0.015	0.005	0.841
I–3	0.448	0.691	0.582	0.005	0.681	0.501
I–5a	0.098	0.076	0.386	0.620	0.009	0.448
I–5c	0.230	0.959	0.674	0.010	0.373	0.708
I–5f	0.554	0.001	0.147	0.002	0.007	0.287

Hamas Subgroup Analysis

The operational code of Hamas is clearly not coherent to the same degree as al–Qaeda. It displays significant differences across each subgroup examined. Hamas leadership and the non–attributed Hamas statements are similar in most respects except for the view of the political universe (I–1) and the tactical intensity of others (I–2). The leadership values for the non–attributed statements of these indices differ significantly (0.01) in the direction of greater perceived cooperation. In contrast, the operational codes for Hamas leadership and the Qassam Brigades differ significantly on most values. Only the level of risk acceptance (I–3) and utility of the Approval tactic (I–5 Approve) do not differ significantly between the two sets of indices. On six of the nine indices, the non–attributed values lie between the leadership and Qassam Brigade scores. However, the non–attributed statements are clearly more similar to the Hamas leadership statements than they are to those of the Qassam Brigades. They differ significantly on eight of the nine indices from the Qassam Brigade

scores. The prediction that the three Hamas subgroups will display high levels of similarity in philosophical indices but not instrumental ones fails. The P–1 and P–2 indices differ at significant levels between all three subgroups while the instrumental indices of the Hamas leadership and the non–attributed statements correspond closely. The Qassam Brigade scores for both the philosophical and instrumental indices differ sharply from the scores of either of the other two subgroups. While some lack of coherence was expected due to the structure and observable behavior of Hamas, this level of disjuncture between elements is well outside of those expectations.

Hamas leadership scores correspond most highly with the values obtained from state leaders. The only significant difference (0.15) is for the utility for the Punish tactic which is actually lower for Hamas leadership than for state leaders. Although it was suspected that Hamas leadership would demonstrate characteristics that approached those of state leaders, such a high level of agreement is surprising, especially in light of the findings of Lazarevska, Sholl, and Young (2006) whom found significant differences in the P–1 and I–1 indices between terrorists (including three Hamas leaders) and state leaders. The Qassam Brigade scores correspond most closely to the operational code values derived from al–Qaeda. Not only are all differences a matter of degree away from the state leader scores, only the P–3 (predictability of the political environment) index is even weakly significant (0.20). These results clearly indicate a high level of belief differentiation within Hamas tied to structural and behavioral divisions.

Under these circumstances I believe the most accurate representation for a group level operational code of Hamas would be obtained from the non–attributed statements. First, each of the statements within this categorization is clearly intended to represent the viewpoint of

the organization as a whole. The leadership statements and Qassam Brigade statements represent views of their respective structural elements within Hamas. Second while it might be arguable that use the leadership indices would be more in keeping with traditional operational code analyses, I would argue that the impact of leadership beliefs on the organization as a whole are better represented by the impact they have upon the statements released under the general authorship of Hamas. In this way the non–attributed statements are presumed to reflect the beliefs of Hamas leadership as they are interpreted by their organization. Third, it seems clear that reliance upon the Qassam Brigade statements would unfairly misrepresent the level of influence this subgroup has upon the general beliefs of the organization. Given the distinctiveness of the Hamas leadership and Qassam Brigade scores, the best option is therefore to make use of a measure that represents either the prevailing beliefs at any given point in time, or one that it representative of a compromise across the other subgroups. It remains to be determined which of these (prevailing or compromise) the operational code from the non–attributed statements most closely resembles.

Cluster Analyses

Cluster analyses were done with the expectation that statements would aggregate around the leadership and Qassam Brigades distinction, forming two distinct clusters. Cluster formation of this type would support the subgroup distinctions of the previous analysis. Non–attributed statements are expected to either overlap the other two or to form a third distinct cluster. If the non–attributed statements form a distinct third cluster this would support the contention that the operational code derived from the non–attributed statements represents an integration of the belief structures of Hamas' subgroups: a kind of compromise belief system. The division of non–attributed statements to the leadership and Qassam Brigade groups without a

significant presence as a third cluster would represent a belief structure for Hamas that shifts between its various subgroups: a kind of prevailing belief system. In this latter case, dates for the non–attributed statements would be indicators for the prevailing belief system within Hamas at a given time. The cluster analyses should also serve to isolate any potentially anomalous statement groups, so that they could be examined in greater detail.

Hierarchical cluster analysis (utilizing averaging linkage)[118] demonstrates a strong split between two primary groups, one of which includes all leadership statements except for Hassan Yusef's[119] August 2005 statement. The second grouping includes all but two of the Qassam statement groups. Non–attributed statements are split amongst these two groups with a slight preference for the leadership grouping, indicating support for the prevailing belief system contention. This analysis also agrees with the previous t–test results indicating that the Qassam Military Brigade statements are distinct from the leadership statements. The statement by Yusef while appearing as an outlier is explainable. This statement is an interview in which he addresses an assassination attempt upon his life. It directly references violent action hence its commonality with the Qassam statements is not unexpected. Dropping the non–attributed statement groups from the cluster analysis (hierarchical averaging linkage) demonstrates a clear split between Qassam and leadership statements indicating that only the Qassam statement group from the July 2002 period is linked with the leadership statements. There appears to be nothing unusual about this particular grouping of Qassam statements. Their tone appears consistent with others nor does the word choice or topic appear particularly distinct.

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[118] See Appendix Four (Graph A4-1) for the resulting dendrogram.
[119] Hassan Yousef is the leader of the political bureau of Hamas within the West Bank region.

Graph 5-10 – Dendrogram of the Hierarchical Cluster Analysis of Hamas Statements (excluding non-attributed statements)

Dendrogram for HA_sbgrp_avg_b cluster analysis
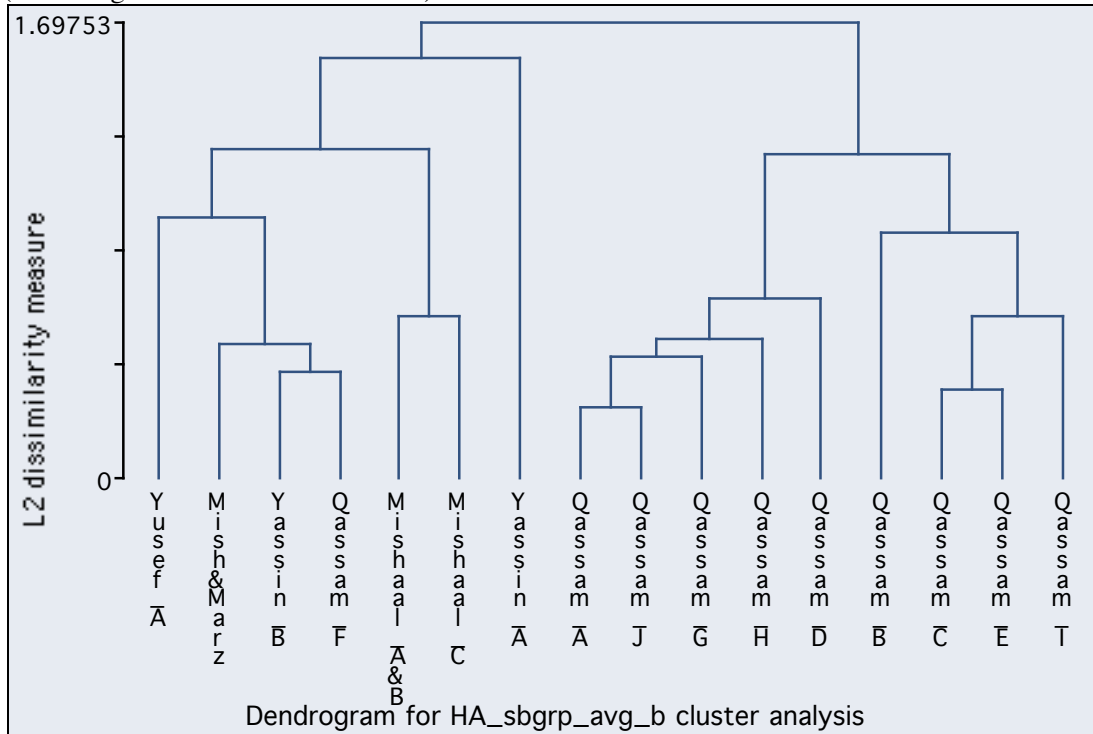
Non–hierarchical clustering (k means – three clusters specified) largely confirms these results.[120] The clusters appear to consist of a non–attributed statements group that includes some similar Qassam and leadership statements (Cluster 1), a cluster of Qassam Brigade and related statements (Cluster 2), and a leadership group with similar non–attributed statements (Cluster 3). The initial cluster consists of 20 of the 40 non-attributed statement groups along with two Qassam Brigade statement groups and the Yassin statement from 11/12/2000. The second cluster consists of seven of the ten Qassam Brigade statement groups, the Yusef statement from 8/20/2005, and ten non-attributed statement groups. The final cluster includes five of the seven leadership statements, a lone Qassam Brigade statement group, and the remaining ten non–attributed statement groups. The lone Qassam Brigade group in cluster

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[120] See Appendix Four for the breakdown of statements into each cluster.

three is from the July/August period of 2002 and does not appear to be chronologically linked to the non-attributed statements from that same cluster. Evidence for the prevailing belief system contention appears mixed from this analysis. The fact that the first cluster is primarily composed of non–attributed statements lends credence to the non-attributed statements representing a compromise belief system. However, the equally large number of non–attributed statements within the second and third clusters, and their even distribution amongst those clusters, suggests that the beliefs of these two subgroups do have periods of ascendancy which argues in favor of the presence of a prevailing belief system.

Summary

Results of the subgroup testing of Hamas indicate very low levels of belief system coherence across each of the subgroups. This division is also supported by the various cluster analyses which demonstrate distinct differences between these subgroups. Disparity of values across the three groups are substantial and reflective of fundamental differences in both the perceptions of the political universe and the means of operating within that environment. The operational code for Hamas leadership is virtually identical to that of the state leaders, and operational code of the Qassam Brigades is essentially indistinguishable from al–Qaeda's. This argues against the presumption that Hamas, as an organization, is expressively motivated toward the use of violence. In fact the segregation of operational duties and the corresponding segregation of belief system indicated by the Qassam Brigades subgroup supports the presumption of an organization that makes use of violent action as a tactical resort. It may also be indicative of a strategic motivation for violent action on the part of those individuals that form the core of the Qassam Military Brigades. Of the three subgroups, the non–attributed statements appear to be most representative of an overall measure of the

operational code of Hamas. Whether they are reflective of a prevailing operational code or one that is the result of compromise position between the leadership and Qassam Brigade elements remains an open question.

Chronologic Analysis of the Operational Code of Hamas

As with al–Qaeda an initial look at the chronology of the operational code of Hamas is done by separating statement groups into several time periods (in the case of Hamas, roughly corresponding to annual divisions) and comparing the values derived from each.

The arbitrary nature of the divisions (and the comparatively small samples from the pre–2000 and post–2002 periods) make any conclusions speculative however, there does seem to be evidence that Hamas' view of the political universe has been increasingly conflictual. There also appears to be indication that the Hamas response to this perception change has been to shift its strategy and tactics toward more conflictual ends and means. The risk acceptance appears to have been dampened over time but still remains quite high. Tactical utility scores remain largely unchanged although there is a hint that utility of the Punish tactic is increasing and the utility of the Approval tactic is decreasing.

Table 5-11 – Chronologic Groupings of Hamas Operational Codes

	Group One Pre–2000 N=8	Group Two Year 2000 N=13	Group Three Year 2001 N=11	Group Four Year 2002 N=12	Group Five Post–2002 N=5
P–1 Mean	-.026	.038	-.048	-.087	.029
Std Dev.	.087	.148	.121	.136	.241
P–2 Mean	-.060	-.059	-.113	-.190	-.071
Std Dev.	.060	.116	.087	.129	.138
P–3 Mean	.082	.103	.084	.141	.102
Std Dev.	.029	.034	.015	.041	.047
I–1 Mean	.279	.456	.317	.250	.230
Std Dev.	.378	.187	.228	.218	.343
I–2 Mean	.090	.138	.074	.005	.048
Std Dev.	.204	.110	.087	.141	.214
I–3 Mean	.253	.359	.278	.238	.191
Std Dev.	.195	.140	.120	.090	.137
I–5a Mean	.115	.082	.052	.061	.097
Std Dev.	.086	.094	.035	.053	.066
I–5c Mean	.475	.623	.551	.525	.428
Std Dev.	.217	.147	.111	.095	.190
I–5f Mean	.116	.095	.091	.174	.130
Std Dev.	.131	.077	.068	.082	.109
Statements	23	66	87	113	20

The following analysis was done after removal of leadership and Qassam Brigade statements. This was done to remove potential masking effects of the differences between those groups, and thereby isolate only the chronologic differences upon the organization as a whole. A hierarchic cluster analysis (averaging linkage) isolated the 1999B and 2001J statement groups into an outlier couplet and then divided the remaining statements into two main groupings: Clusters A and B. Each of these clusters can also be roughly divided in half between two sub–clusters thus giving four main groupings (A1, A2, B1, and B2).

Graph 5-12 – Dendrogram of the Hierarchical Cluster Analysis of non–attributed Hamas Statements

(Hamas statements organized chronologically)

L2 dissimilarity measure

1.47517

0

Pre-1994

Dendrogram for HA_nonatt_avg_b cluster analysis
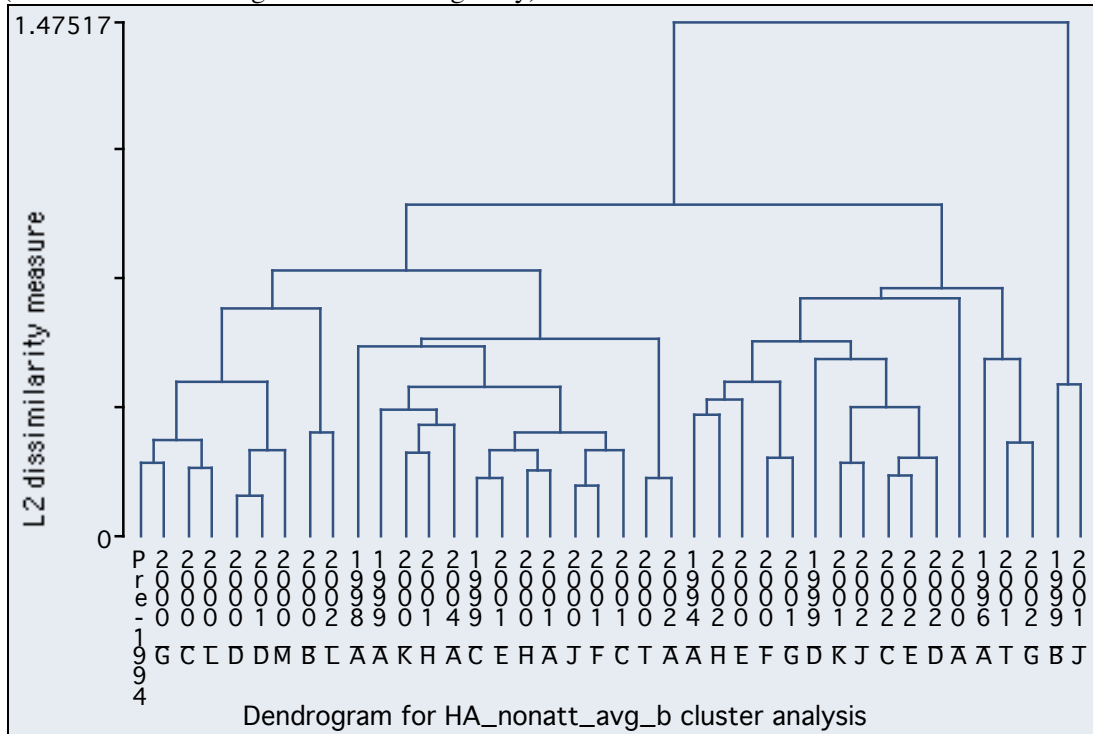
T–tests for difference of means were run between the two main clusters (A and B) with the results summarized in the table below. The P–5 and I–5 Approve values for both clusters demonstrate moderate to high levels of skew and kurtosis making the t–test results problematic. The I–5 Reward values for cluster B demonstrate high skew and kurtosis which make the results suspect although in line with expectations. The I–5 Punish index for cluster B has a moderate to high skew (1.224) but this is not enough to invalidate the rather obvious difference between the two means.

Table 5-13 – Difference of Means Results Over Clusters Suggested by Chronologic Cluster Analysis

Index	Group	Mean	Std Deviation	Significance
P–1				
View of the	Cluster A	0.002	0.032	0.199
Political Universe	Cluster B	-0.057	0.024	
P–2				
Intensity of Pursuit	Cluster A	-0.068	0.115	0.077
of Goals by Others	Cluster B	-0.129	0.072	
P–3				
Predictability of	Cluster A	0.091	0.033	0.072
the Political Future	Cluster B	0.110	0.029	
I–1				
Optimal Approach	Cluster A	0.570	0.096	0.000
to Goals for Self	Cluster B	0.165	0.154	
I–2				
How Goals Most	Cluster A	0.205	0.066	0.000
Effectively Pursued	Cluster B	-0.002	0.088	
I–3				
Risk Acceptance	Cluster A	0.395	0.114	0.000
Level	Cluster B	0.256	0.099	
I–5a Reward				
Utility of the	Cluster A	0.084	0.064	0.244
Reward Tactic	Cluster B	0.054	0.093	
I–5c Approve				
Utility of the	Cluster A	0.672	0.078	0.000
Approval Tactic	Cluster B	0.494	0.129	
I–5f Punish				
Utility of the	Cluster A	0.054	0.041	0.001
Punish Tactic	Cluster B	0.137	0.987	

Cluster A: n = 23   Cluster B: n = 15

With respect to characterizing the two clusters there is little to suggest that there are any strictly chronologic shifts occurring. Cluster A does appear to be strongly grouped in the early 2000 to mid 2001 period and cluster B does include most of the mid to late 2001 and later statements. However, the inclusion of later statement groupings in cluster A, and the inclusion of 1994 and 1996 statement groups in cluster B argues against interpretation of

these two clusters as indicative of a belief system shift occurring sometime in the middle of 2001.

There is however, a strong overlap between the statements in Cluster A with the statements that correspond to the leadership grouping identified in the previous section's subgroup cluster analysis. Similarly, the statements from the B1 and B2 subgroups, while grouped together for purposes of the above t–tests, also correspond roughly to the division of statements between the non–attributed and the Qassam groupings from the previous analysis. It was noted in the previous section that the operational code derived from the non–attributed statements probably represents a measure of the prevailing belief structure, sometimes corresponding highly with the leadership values sometimes corresponding to the Qassam Brigade values. With this in mind the A and B clusters can be interpreted as periods in which either the Hamas leadership (Cluster A) or Qassam Brigade (Cluster B) belief structure is prevailing.

The statements from cluster B do generally a) occur around periods that are also marked by large numbers of Qassam Brigade statements, b) directly reference Qassam Brigade actions, and/or c) reference violent actions on the part of Israel (the killing of Ayyash, Shehachem, the attack on Beit Reema, etc.). Although references to these same kinds of actions can be found in cluster A, they are more infrequent and are less often the primary subject of the communication. In most instances, Qassam Brigade statements indicate that the violent actions taken by Hamas are in the form of a reprisal for one or more specific actions taken against them. The non–attributed statements that make up Cluster B also largely share this trait. This suggests that the belief system indicated by the Qassam Brigades tends to dominate

in periods of direct danger to the Hamas organization and that the tactical use of violence is generally utilized in response to violent action directed against the organization or its leadership.

This corresponds well with the differences seen between the operational codes of cluster A and cluster B. As with the al–Qaeda response to danger, Hamas statements reflect a reiteration of an inherently hostile world as the P–2 index is significantly lower (P–1 is also lower although significant only at the 0.20 level). This is accompanied by a significant increase in the predictability of the political universe (P–3). It appears that violent action is expected from the opposition and its presences serves to increase the expectation for further such actions. These shifts in the philosophical indices are matched in the instrumental indices in which I–1 and I–2 both shift toward greater self emphasis on conflict for the strategic and tactical levels respectively. Contrary to the results for al–Qaeda however, Hamas responds with a lowering of its level of risk acceptance. Granted, the level is still far in excess of state leader scores but nonetheless it is a significant decrease from the Cluster A value. Shifts in the tactical utilities are also in the directions expected, mirroring the response of al–Qaeda. The I–5 Reward utility decreases (although not significantly), the I–5 Approve utility decreases significantly, and the I–5 Punish utility increases significantly.

Organizational Evolution Analysis

As with al–Qaeda, an attempt was made to identify stages of group *identification* and *individuation* in Hamas by equating those stages with periods of threat and success. Statement groups categorized as occurring under periods of threat included any that occurred during or immediately after the killing or attempted killing of Hamas leadership, the direct

targeting of Hamas facilities, or large scale arrests of Hamas members. Statement groups categorized as occurring under periods of success included any that occurred during or immediately after successful terrorist attacks as well as the release of prominent Hamas members from incarceration (such as Yassin's release in September of 1997).[121]

To this point the operational code of Hamas has demonstrated greater levels of differentiation than has al–Qaeda, it is presumed therefore that differences between the success, threat, and neutral statement groups for Hamas would display more distinct cross group divisions. Predicted values for philosophical indices in the *identification* stage include significantly lower P–1 and P–2 values and a higher P–3 value than for the *individuation* stage. Similarly expectations are for an increased emphasis on strategic violence and increased intensity in pursuit of those objectives (lower I–1 and I–2 scores). With al–Qaeda the initial presumption was that the risk acceptance level (I–3) would decrease, although it was hypothesized that the increased need for action (I–2) would serve to drive the I–3 score higher. In the case of Hamas, risk acceptance is presumed lower based on a lower need to initiate violent actions (a consequence of the higher overall I–1 and I–2 scores for Hamas). If, as suspected, the I–2 score does not indicate a much higher degree of intensity in pursuit of violent action then correspondingly expectations are for a reinforcement of the I–5 Approve tactical utility and lower utilities for I–5 Reward and I–5 Punish. If so this has important implications for counter–Hamas operations. If periods of threat result in shifts in tactical utility away from Punish tactics then these operations may indeed be useful limiters on Hamas actions. This would be in sharp contrast to al–Qaeda in which the threat grouping displayed the highest level of utility for Punish tactics.

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[121] See Appendix Three for the breakdown of statements into each category.

Expectations regarding equation of periods of operational success to an *individuation* stage are limited because of the poor results from the al–Qaeda analysis. Greater standard deviations of I–2 and the tactical utility indices for the success grouping would indicate a degree of correlation between operational success and *individuation* particularly if this was reinforced by a higher I–2 score, greater utilities for the Reward (I–5 Reward) and Approve (I–5 Approve) tactics, and a lowered utility for Punish (I–5 Punish) tactics. The mean values for the operational code indices for each subdivision and the difference of means results (in the form of p-values) are summarized in the tables on the page following.

Table 5-14 – The Operational Code of Hamas Across Stages of Identification, Productivity, and Individuation

Coded as: Group Stage: N =	Threat Identification 7	Neutral Productivity 30	Success Individuation 12	All Chronologic Groups
P–1 Mean	-0.036	-0.006	-0.059	-.023
Std Dev.	0.110	0.156	0.140	.146
P–2 Mean	-0.119	-0.092	-0.128	-.104
Std Dev.	0.088	0.124	0.118	.117
P–3 Mean	0.094	0.107	0.103	.104
Std Dev.	0.020	0.039	0.050	.039
I–1 Mean	0.169	0.357	0.326	.323
Std Dev.	0.225	0.264	0.265	.262
I–2 Mean	0.029	0.092	0.054	.074
Std Dev.	0.102	0.148	0.166	.147
I–3 Mean	0.191	0.290	0.296	.277
Std Dev.	0.068	0.160	0.110	.141
I–5a Mean	0.078	0.094	0.035	.077
Std Dev.	0.057	0.076	0.048	.071
I–5c Mean	0.466	0.552	0.547	.539
Std Dev.	0.122	0.174	0.113	.155
I–5fMean	0.098	0.118	0.134	.119
Std Dev.	0.057	0.083	0.134	.094

Table 5-15 – Difference of Means Results for Hamas Stages of Identification, Productivity, and Individuation

	Individuation x Identification	Productivity x Individuation	Productivity x Identification
P–1	0.718	0.312	0.631
P–2	0.883	0.401	0.581
P–3	0.659	0.760	0.386
I–1	0.205	0.738	0.091
I–2	0.722	0.470	0.293
I–3	0.036	0.895	0.122
I–5 Re	0.100	0.018	0.610
I–5 Ap	0.162	0.924	0.224
I–5 Pu	0.508	0.647	0.538

Comparison, via t–test, of the Threat and Success categories indicate significant difference of means in only the I–3 and I–5 Reward indices (0.04 and 0.10 respectively). The I–1 and I–5 Approve indices can be considered weakly significant as well (0.20 and 0.16 respectively). The utility of the Reward tactic is lower in the success grouping while the risk acceptance is significantly higher. An additional test was done loosening the criteria for threat and success periods. While this resulted in an increase in the size of N, again only the I–3 and I–5 Reward indices showed significant differences albeit to lesser degrees (0.17 and 0.13 respectfully) and in the same direction as with the more constrained categorization.

In contrast to expectations there is little differentiation between the philosophical indices of the three groups. In fact the Hamas groupings display stronger overall coherence than al–Qaeda, which, given the greater differentiation seen in previous tests, may indicate that the greater subgroup differences are masking chronologic differences. The instrumental indices however are in line with projections. Both the I–1 and I–2 indices are lowest for the threat grouping indicating a shift toward conflictual strategies and an increased intensity in pursuit of those strategies. The I–3 index is significantly lower indicating a substantial lowering of the group's willingness to accept risk (putting it on par with the state leader mean). The tactical utility score for the use of Reward tactics (I–5 Reward) differs significantly in the opposite direction from expectation. The I–5 Reward score for the Success category is substantially lower than another other recorded value for that index. No explanation for the anomalous value is readily apparent. In contrast, the tactical utilities for both Approve and Punish tactics are lowest for the threat category. The evidence for or against counter–Hamas operations is therefore mixed. On the positive side there is a noticeable lowering of risk acceptance and some evidence of decreased emphasis on violent action (I–5 Punish).

However, the lower I–1, I–2, and I–5 Approve scores are not indicative of desired responses to these operations.

As with al–Qaeda, the predictions based on equating periods of operational success with an *individuation* life cycle stage do not hold. While the I–2 index does display a larger standard deviation for this category it is not unusually large and the standard deviations for the tactical utilities are actually lowest in the success category for Reward and Approve tactics. Only the standard deviation of I–5 Punish is in line with expectations. The I–2, I–5 Reward and I–5 Punish values are all contrary to expectations and the I–5 Approve value shows no real difference from the neutral and overall values. For both al–Qaeda and Hamas, it would seem that operational success does not equate with periods of group *individuation*. As indicated with al–Qaeda, this damages the assertion that either is motivated toward the use of expressive violence. Evaluation of the success category to examine beliefs during periods of violent action is however still instructive.

The philosophical indices I–1 and I–2 are at their lowest values during these periods, the I–5 Punish index is at its highest, and the I–5 Reward utility plunges dramatically. Drops in I–1 and I–2 and a tactical utility pattern emphasizing Punish and/or de–emphasizing Reward tactics therefore seem to be likely indicators of such an operational period. Similarly, presuming that Hamas violence is generally tactically motivated and in response to perceived threats, it seems prudent to look for significant upward shifts in the I–3 index and downward shifts in the I–5 Reward index as possible warning signs of imminent violent action on the part of Hamas.

With respect to the neutral category, the philosophical indices have the highest values, indicating a more cooperative view of the political universe, these differences are not however statistically significant. The I–1 and I–2 indices are highest for the neutral group, and I–1 differs significantly from the threat group's value at the 0.09 level. The I–3 index (risk acceptance) is also significantly higher for the neutral category than the threat category (0.12 level). In contrast with al–Qaeda, there does seem to be evidence that the neutral category is representative of a distinct subset of statements, although correspondence between this category and a *productivity* stage is still unsubstantiated. Despite differing at the 0.20 level or better in only three instances, this category does have the highest value for seven of the nine indices and seems to indicate a more cooperative view of the political universe and a more cooperative response to that universe. In fact the I–1 and I–2 index scores approximate state leader scores for this category a factor not found in any of the chronologic groupings of al–Qaeda.

Hamas Chronologic Summary

The chronologic analyses agree with the subgroup analyses. The Hamas belief system seems to lack the level of coherence seen in that of al–Qaeda. Annual breakdown of the Hamas operational code suggests the possibility of a gradual shift of the Hamas worldview toward one that is more conflictual and that requires a more strongly conflictual response. There may also be a general tendency toward less risk acceptance although this level still far exceeds that of state leaders. Substantial patterned differences exist between specific chronologic groupings and these differences do reflect substantive alterations rather than mere degrees of difference. In fact, the results of the cluster analysis, that removed the masking effects of the leader and Qassam Brigade subgroups, resulted in two clusters whose instrumental indices

(I–1 and I–2) differed considerably from the state leader means in either direction indicating radically differing strategic and tactical objectives across time. These two clusters are suggestive of a chronologic shift in belief system occurring in mid–2001 that cannot be tied to a specific event or series of events. This result is the opposite of that seen for al–Qaeda in which the events of 9/11/2001 were suggested by cluster analysis as a defining moment in time but no corresponding belief system shift was detected. In the case of Hamas there appears to be a shift in belief system but no known triggering event. These clusters are only suggestive of this shift. Both clusters included statements from time periods not in keeping with the viewpoint of a singular belief system alteration. The differences may therefore reflect a Hamas belief system that shifts between periods in which the Leadership and Qassam Brigade operational codes each take precedence. The operational code of the non-attributed statements therefore represents the prevailing beliefs at a given point in time as they are expressed through the filter of group processes.

Equating of periods of organizational success or threat to group evolutionary stages was largely unsuccessful. Periods of threat are only loosely correlated with expectations for a group's *identification* stage, and appear to have a less pronounced effect on Hamas than on al–Qaeda. These periods do result in a significantly lower risk acceptance and possible increases in the conflictual nature of Hamas strategy and tactics. As with al–Qaeda, periods of operational success do not seem to equate with an *individuation* stage of group development. They do seem to coincide with significantly increased risk acceptance and deterioration of the utility of Reward tactics. Some shift toward a more intensely conflictual view of the political universe is also indicated. Statements from the Qassam Military Brigades subgroup do indicate a degree of expressive motivation however, the relegation of

those beliefs to this subgroup, and the fact that the non-attributed statements chronologically linked to them, do not exhibit these same traits, strongly indicate that Hamas is largely an instrumentally motivated organization.

Overall Summary

Two primary areas of comparison between al–Qaeda and Hamas were discussed, the issue of belief system coherence and the question of motivation for violent action. Both al–Qaeda and Hamas displayed evidence of non–coherent belief structures although in the case of al–Qaeda these differences are at least partially explainable by outlier statements (such as Zawahiri's letter to Zarqawi) or are reflective of divisions between the al–Qaeda and Zarqawi organizations rather than differences in al–Qaeda per se. It is less clear whether such explanations are viable for Hamas. While the operational code for the Qassam Military Brigades is clearly distinctive from other elements of Hamas there is no question that the Brigades are part of the Hamas organization to a much higher degree than the level of affiliation between al–Qaeda and Zarqawi's organization. The belief differences for al–Qaeda although significant are also largely matters of a degree of difference from the state leader means. This is not the case for Hamas. The leadership subgroup appears very similar to state leaders and in periods not marked by organizational threat or operational success, the instrumental indices for Hamas show an emphasis on cooperative behavior that approximates state leader means. Whether this represents a chronologic shift in the group's overall belief structure or the ascendancy of the Hamas leadership beliefs during those periods is largely irrelevant in terms of comparing al–Qaeda and Hamas belief system coherence. The level of coherence for al–Qaeda is clearly much higher, representing a tighter control over beliefs within the organization and a closer match to expectations regarding belief system coherence

for a terrorist organization. The operational code differences within Hamas do not display the high level of coherence expected of a terrorist organization. They indicate that the structural divisions within Hamas are not mere window dressing but rather are reflective of multiple strategic and tactical views within the organization, and the success of Hamas in conjoining differing viewpoints within one organization which, while clearly capable of taking actions deserving of the label "terrorism," does not match expectations for a strictly terrorist organization.

An answer to the question of the level of expressive motivation toward violent action remains less conclusive. One would have expected that a strategically motivated organization would have demonstrated differences in operational code based on the successes of violent operations, particularly if those differences were seen to accentuate the group's tendency toward the use of violence. The inability to link periods of operational success to an *individuation* stage of group development for either organization therefore calls into question the labeling of either as a group expressively motivated toward violence. For Hamas the chronologic shifts in the operational code particularly those that result in high levels of cooperative behaviors is indicative of an organization willing to make use of violent action as a tactical means of achieving its objectives rather than an organization that has come to perceive the use of violent action as an end in itself. This is bolstered by the belief system of the Qassam Military Brigades which parallels that of al–Qaeda. The fact that this is relegated to a subgroup and that other groupings are so very different from it, point to the use of violent action is a choice of tactics and rarely if ever the result of a strategic need for violent action. The evidence against an expressive motivation is less clear for al–Qaeda. Utility of Punish tactics remains extremely high across all divisions within al–Qaeda and while this utility is

less pronounced for bin Laden there is clearly a much greater utility attached to violent action

for al–Qaeda as a whole then there is for either Hamas or the state leader groups. Similarly

the instrumental indices, indicating an emphasis on conflictual strategies (I–1) and intensity

of tactical pursuit of those objectives (I–2), generally remained well outside of the state leader

norms. While these factors alone cannot be taken as conclusive evidence of an expressive

motivation for violence on the part of al–Qaeda, they do suggest, particularly when compared

to Hamas, the presence of motivational factors outside of simple instrumentality.

Chapter Six:
Conclusion

The operational code approach has proven itself to be an enduring means of understanding the motivations and behaviors of prominent state leaders. This project is an attempt to demonstrate that this approach can also be usefully extended to the study of other influential international actors, to terrorist organizations in general and specifically to al–Qaeda and Hamas. As stated in the introduction, the primary purpose of this project is two–fold. At its most basic this study seeks to demonstrate that the operational code approach is an appropriate and useful means of studying terrorist entities. Its second goal is to conduct preliminary research into the kinds of information that the operational code approach can bring to the study of terrorism. To do so I have derived and studied the operational codes of two prominent international actors often labeled as terrorist: al–Qaeda and Hamas. In the first stage, operational codes for these organizations are developed at the group level from the aggregation of statements attributed to specific leaders of the organizations as well as statements from specific subgroups and those attributed to the organization as a whole. These operational codes are then compared both to each other and to the mean values for a reference set of state leaders. The second stage of this project is an examination of the operational codes of these organizations across internal subdivisions and over time. While in many respects tentative, the results of these analyses do confirm that the operational code approach is an appropriate means of studying these entities and can yield important insights into their study.

Group Level Comparison of al–Qaeda and Hamas: Results Summary

	Are Hamas and al–Qaeda distinct from state leaders in their political beliefs and can Hamas and al–Qaeda be usefully distinguished from either other on the basis of those political beliefs?
Nature of the Political Universe	*Both al–Qaeda and Hamas perceive the political universe as more hostile than do state leaders. Others are perceived as emphasizing the use of conflictual actions for the achievement of their goals. These perceptions are more pronounced for al–Qaeda than for Hamas.*
Predictability of Political Action	*The actions of others are viewed as more predictable by al–Qaeda and Hamas than by state leaders.*
Control over Historical Development	*While Hamas views their level of control at a similar level to that of state leaders, al–Qaeda ascribes to themselves a lower level of control over political events.*
Optimal Means of Goal Achievement	*Al–Qaeda perceives its political aims in conflictual terms to a larger degree than do state leaders. Both al–Qaeda and Hamas emphasize the efficacy of using conflictual action to achieve political goals to a greater degree than do state leaders. However, this emphasis is less pronounced for Hamas which perceives its political aims in terms largely indistinguishable from state leaders.*
The Acceptance of Risk	*While the al–Qaeda perception of the optimal level of risk acceptance is similar to that of the state leaders, the risk acceptance level of Hamas is greater than that of the state leaders.*
Tactical Utilities	*While most tactical utility levels are similar to those of state leaders, both al–Qaeda and Hamas attach significantly less utility to tactics involving cooperative actions (support). Hamas attaches a higher level of utility to low–intensity verbal cooperation (approval) than do either al–Qaeda or state leaders. Al–Qaeda attaches a higher utility to both conflictual high–intensity verbal tactics (threats) and conflictual actions than do state leaders. Rankings of preferred tactical options are similar for Hamas and al–Qaeda and distinct from those of state leaders.*
Violence Motivation	*While both al–Qaeda and Hamas appear largely instrumental in their use of violence, al–Qaeda does display characteristics indicating a greater tendency toward expressive motivation than does Hamas.*

The study of terrorism presupposes that its users represent a specific, identifiable class of actor. Whatever characteristics one uses to differentiate terrorist actors from other actors, there exists the potential that these differences will be reflected in their political beliefs.

Therefore, one of the primary contentions of this study has been that the operational codes of Hamas and al–Qaeda are distinct from state level international actors. Comparison of the operational codes of al–Qaeda and Hamas to state leaders indicates that this form of analysis can usefully differentiate between these classes of international actor. Belief system differences between the terrorist groups and state leaders are statistically significant on a number of operational code indices. This is particularly true of the philosophical indices. While this, in and of itself, does not demonstrate their uniqueness, the number of indices, the degree of difference, and the commonalities between Hamas and al–Qaeda, point to actors with distinctive operational codes. The degree of difference is noticeably more extreme for al–Qaeda than it is for Hamas. While significant, the degree of difference between the state leader and the Hamas and al–Qaeda scores do not indicate that Hamas and al–Qaeda are entirely outside of the bounds of state leader beliefs. This finding does agree with the Lazarevska, Sholl, and Young (2006, pp. 178-180) study whose results showed that certain "hardline" leaders (a specific subset of leaders of states known to sponsor terrorism) were categorized as terrorists in a discriminant function analysis. Only the P–1 and P–2 scores for al–Qaeda exceed the boundaries of state leader minimum or maximum values. This is surprising since one might have expected that the most significant differences between state leaders and terrorists would occur not in their perceptions of the political universe but in their perceptions of appropriate actions within that universe.

The differences between the group level operational codes of al–Qaeda and Hamas are also significant and therefore do support the second major contention of this study. The operational code approach can be used to differentiate between terrorist organizations. In this case, the choice of two specifically Islamic religious terrorist groups is a strong test for the

ability of the operational code approach to distinguish belief system differences between terrorist organizations with similar motivational bases. Both organizations, despite being religious in orientation and drawing inspiration from some of the same Islamic sources, have very different operational codes, although these differences tend to be in the same direction away from the state leader values. For example, both perceive the political environment as inherently hostile (P–1 & P–2) however, the degree of that perceived hostility is far greater for al–Qaeda than it is for Hamas. This supports the contention that the operational code approach to terrorist groups can be used for typological purposes. The sample size of two prevents any extrapolation to other groups, of the relationship between operational code differences and the variety of motivational, contextual, structural, and behavioral differences between al–Qaeda and Hamas. However some preliminary conclusions do not seem unfounded. The group level operational code of Hamas was found to be less extreme than that of al–Qaeda and a number of factors were suggested for this moderation. Hamas has an ethno-nationalist component to its aims that is absent from al–Qaeda. This provides Hamas with specific, long–term instrumental goals including the re–establishment of the state of Palestine. In turn, this means that, unlike al–Qaeda, Hamas has a constituency to whom it is directly responsible as well as competition for that constituency in the form of Fatah. Additionally, Hamas has a much higher degree of social connection with that constituency. Each of these is a potential moderating influence on an otherwise escalating level of violence reliance. The more moderate group level operational code values of Hamas, particularly those relating to the appropriateness and utility of conflictual actions (I–1, I–2, I–5f), indicate that these factors are inhibiting the tendency toward violent behavior and that this is reflected in the organization's belief structure.

While the belief system differences between al–Qaeda and Hamas, at the group level, seem to indicate the absence of any operational code that is specific to terrorist entities, this may not be an entirely correct conclusion. The similarities between the belief system espoused by the Qassam Military Brigades subgroup within Hamas and that of al–Qaeda are striking. While I am hesitant to generalize to the entirety of terrorist entities, the presence of these similarities does suggest that while specific terrorist beliefs, behaviors and motivations may differ from each other, the presence of a shared set of beliefs regarding the nature of the political world and their place within that world should not be ruled out. To be clear, I am not arguing that all terrorists share the same beliefs, or even that the beliefs of any subset of terrorist actors are identical. Such an argument is demonstrably false. What is being stated is that the myriad of differing motivations and beliefs that contribute to the decision to use terrorism may well manifest themselves as similar scores on specific operational code indices.

Derivation of the operational codes of additional terrorist entities (at both the group and subgroup levels) is therefore necessary for further exploration of this possibility. Identification of an operational code of terrorism would theoretically allow for an objective measure by which a group's status as a terrorist entity could be judged. It would also provide a means of identifying groups at a risk of engaging in terrorist behaviors. For both these purposes the results of the operational code analysis of Hamas are enlightening. Looking at the group level, one would not have said that the operational codes of Hamas and al–Qaeda demonstrated a unified set of beliefs. Only by examination of the subgroup divisions within Hamas does such a similarity appear. For large, structurally and operationally diverse organizations, aggregation of the operational code at the group level may mask the presence of a belief system that coincides with the usage of behaviors characterized as terrorist.

Even if additional research supports the contention that a belief system specific to terrorist entities exists, evidence from this study suggests that notable differences do exist in the operational codes between and within terrorist entities. Operational code differences between al–Qaeda and Hamas (at the group level) do indicate generally more extreme views for al–Qaeda and are particularly relevant to motivational differences between the two organizations. The more extreme values for al–Qaeda provide evidence of a motivational component toward expressive violence for that organization. To be sure, this does not imply that al–Qaeda does not use violence for instrumental purposes but, rather, that al–Qaeda has additional motivational impetus toward violent action that is unrelated to its instrumental goals. Whether this takes the form of a need or desire to inflict punishment upon the far–enemy or simply a need to commit violence for the sake of violence cannot be determined however, the belief system of al–Qaeda is certainly suggestive that such a component is present.

Evidence for expressive motivation is not entirely absent from Hamas as well, however, its presence highlights a structural difference between Hamas and al–Qaeda. The Qassam Military Brigades subgroup within Hamas has an operational code that closely resembles that of al–Qaeda being even more extreme (although not significantly so) on the utility of punish index (I–5f Punish). This suggests that, to the degree that Hamas has elements within it that are expressively motivated, they are largely confined to the specific sub–structure that is responsible for its terrorist actions. Chronologic analysis of Hamas' operational code also suggests that its dominant operational code varies between its leadership and the Qassam Brigades subgroup. Therefore, it would be unwise to assume that all of Hamas' violent actions are strictly instrumental in purpose.

Summary of the Evaluation of Commonly Held Assumptions Regarding the Nature of Terrorist Actors

Assumption	Evaluation of the Expected Operational Code Values
Groups resort to and continue to utilize terrorist behaviors because of rational calculations regarding the efficacy of violence in achieving political aims and the lack of viable alternative courses of action.	*al–Qaeda's belief in the primacy of conflictual action as a means of achieving strategic outcomes (and to a lesser degree the presence of the same belief for the Qassam Military Brigade subgroup within Hamas) combined with high degrees of predictability of other actions is indicative of a belief in the efficacy of violence as a means of achieving political aims.* *The extreme degrees to which al–Qaeda and Hamas believe other actors rely upon conflictual options, specifically violent actions, for the achievement of their political aims is indicative of a perception of a confined decision space also supportive of this assumption.*
The degree of societal isolation experienced by a terrorist organization exacerbates their level of violence.	*The more extreme values obtained for the beliefs of al–Qaeda regarding the conflictual nature of the political environment and the utility of conflict, particularly violent action, within that environment do appear to support the assumption that the degree of societal isolation contributes to the level of violence of the organization. Contrary to this finding is the lack of significant difference in the beliefs of al–Qaeda and Hamas with regard to tactical flexibility between conflict and cooperation and between their levels of risk acceptance.*
Terrorist organizations have and/or develop strong negative images of their opposition.	*To the degree that strong negative images are expressed in the form of a perception of others as inherently drawn to conflict and as overly predictable in their behaviors this assumption is supported by the operational code values for al–Qaeda and Hamas.*
Religious terrorist groups are less constrained in their use of violence.	*More extreme values for al–Qaeda's belief in the efficacy of violence, in conjunction with indicators for greater religiousness such as a strong external locus of control and higher expectations of behavioral predictability are generally supportive of this assumption. However given that both organizations are identified as religious in nature it may be that this evidence is supportive only of a relationship between the deterministic character of that religiousness and the group's lack of constraint.*
Terrorist organizations believe in the inevitability of their causes.	*Evidence from the locus of control index appears to be contrary to this assumption. In the case of al–Qaeda there is a strong indication that the fate of their cause is external. In the case of Hamas, the locus of control measure does not differ significantly from the norming group indicating either that cause inevitability is not a common trait for these organizations or that it is a trait that is uniformly high amongst the norming group as well.*

Summary of the Evaluation of Commonly Held Assumptions Regarding the Nature of Terrorist Actors (continued)

Assumption	Evaluation of the Expected Operational Code Values
Terrorist organizations perceive themselves as vanguard elements for their causes.	*al–Qaeda's greater perception of themselves as the vanguard of their movement, as indicated by the presumed importance of this concept to the writings of Azzam, is not supported by the relative values of the locus of control operational code index. Although the values for both organizations differ significantly they do so in a direction opposite of expectations.*
Long standing terrorist groups perceive themselves as "trapped" into a cycle of violence escalation.	*A perception that one is trapped by the continued need to escalate violent operations should be mirrored by a low perceived value for tactical flexibility with respect to conflict and cooperation. Neither al–Qaeda nor Hamas manifest this attenuated flexibility, indicating a lack of support for this assumption.*
Violent counter–terror operations exacerbate terrorist beliefs regarding the conflictual nature of their opposition.	*For al–Qaeda, beliefs regarding the conflictual nature of the political environment are more extreme during periods of threat. This trait is not shared by Hamas. However, for both organizations periods of threat were associated with increased perceptions of the efficacy of the use of violent action.*

As the preceding table indicates, the operational code approach is also capable of contributing to the field of terrorism studies through the evaluation of expectations arising from commonly held assumptions regarding terrorist behaviors and motivations. Although none of these evaluations should be considered a definitive test, each is indicative of an assumption's plausibility and therefore can serve as a starting point for more formal testing of them.

Group Specific Belief System Analysis Summary

	Results of al–Qaeda Leadership Comparisons
Belief System Coherence	*While significant differences do appear between the belief systems espoused by bin Laden and the other leaders of al–Qaeda these are largely matters of a degree of difference from the state leader values and do not represent fundamental disagreements.*
Potential for Radicalization	*To the extent that there are differences amongst the leadership of al–Qaeda this research indicates that Zawahiri and bin Laden represent a leadership grouping significantly less radical in its reliance on strategic and tactical conflict.[122]*
	Results of al–Qaeda Chronologic Comparisons
Belief System Coherence	*The belief system of al–Qaeda is largely coherent across time with philosophical beliefs displaying greater coherence than instrumental beliefs. Although there is some suggestion that the belief system altered after the events of 9/11, specific differences were not readily observable from the data.*
Organizational Life Cycle	*Classification of al–Qaeda statements into categories corresponding to different stages of organizational evolution proved of limited value suggesting limited movement beyond the identification stage. Classification of statements during periods of operational success did indicate however a reinforcement of the instrumental belief in the efficacy of violent action.*
	Results of Hamas Sub-group Comparisons
Belief System Coherence	*Sub–groups within Hamas are clearly differentiable on the basis of their operational codes. Philosophical beliefs do display greater coherence than instrumental beliefs and are largely matters of a degree of difference from state leader values. However instrumental beliefs indicate substantial divisions with regard to optimal courses of action. Hamas leadership beliefs are highly similar to those of state leaders while beliefs attributed to the Qassam Military Brigades correspond highly with those espoused by al–Qaeda.*
	Results of Hamas Chronologic Comparisons
Belief System Coherence	*The belief system of Hamas at any given time appears to shift between periods of dominance by the leadership and Qassam Brigade subgroups. These shifts may be linked to periods of instrumental response to actions taken against Hamas and a corresponding increased in perceived threat.*
Organizational Life Cycle	*Classification of Hamas statements into categories corresponding to different stages of organization evolution proved of limited value again suggesting limited movement between stages.*

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[122] These differences may also be an artifact of the inclusion of statements by Zarqawi in which case the argument for al–Qaeda's belief system coherence is strengthened and the degree of affiliation between al–Qaeda and al–Qaeda in Iraq is called into question.

Implications from this study with regard to terrorist behaviors are somewhat limited but nonetheless potentially valuable. The less conflict oriented belief system of Hamas does seem to correspond to an organization employing greater tactical and strategic flexibility. Analysis of the operational code of Hamas over time suggests a belief system that shifts between periods of ascendancy of the beliefs of the political leadership and the beliefs of the Qassam Military Brigades, with intermediate periods resulting in a compromise belief system between those two poles. It is possible that future research can build upon the presence of these shifts, linking them to behavioral differences, potentially via correspondence with event data, in an effort to predict periods of greater reliance upon conflictual options, opportunities for negotiated settlement, and/or the potential for group transition away from violence.

By contrast, the operational code of al–Qaeda seems to be relatively consistent over time. This remains true even over suspected seminal events such as the success of the 9/11 operations. While belief system differences were suggested by the results of cluster analyses, no significant belief system alterations were found in the difference of means tests over the pre– and post– 9/11 operational codes of al–Qaeda. Coherence of the al–Qaeda operational code also extended into the examination of internal divisions. There is some evidence suggestive of a division between the operational codes of bin Laden and Zawahiri and those of the other leaders of al–Qaeda. However in nearly all cases al–Qaeda operational code differences manifest as difference in degree rather than differences in kind. One notable sub–element difference was the difference between the operational code espoused by Zarqawi (and therefore applicable to the al–Qaeda affiliated al–Qaeda in Iraq) and that of the rest of al–Qaeda. While it is possible that the more extreme version expressed by Zarqawi is a product of situational context, there is the troubling possibility that groups affiliated with

al–Qaeda and/or inspired by al–Qaeda may, in fact, be more prone to the use of violence than al–Qaeda itself has been. If, as some have argued (Burke, 2003a & 2003b) al–Qaeda's chief impact after the US invasion of Afghanistan is the inspiration for and provision of assistance to affiliated groups, this could well foretell a future international system populated by multiple al–Qaeda inspired entities with little or no moderating influences on their willingness to use violence against the United States and its allies.

For both entities the attempts to link operational code shifts to differing group life–cycle stages was largely unsuccessful. Differences between the operational codes for periods designated as threat, success, and neutral differed only marginally and non–systematically from each other. An allusive outcome of these analyses is however the finding that, for both al–Qaeda and Hamas, the effect of successfully carried out violent operations is the reinforcement of the belief in the efficacy of those operations. While operational success has been previously cited as potentially leading to escalating levels of reliance upon violent options (Hoffman, 1998) this result demonstrates the actuality of this process.

Policy Implications

Several factors regarding the operational codes of al–Qaeda and Hamas are especially relevant to the choice of actions states have in responding to these entities. Previous research, principally from game theoretic or statistical models, has led to contradictory evaluations of the appropriateness of bargaining strategies.[123] While not unique in suggesting that the use of negotiated and/or conciliatory strategies may be problematic, the contribution made by this

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[123] See, for example, Lapan & Sandler (1988), Enders & Sandler (1993), Sederberg (1995), Sandler & Hartley (1995, pp. 305-335) and Bapat (2006).

project is to emphasize that the beliefs of the terrorist actor may inhibit the effectiveness of these techniques. Both organizations attribute high levels of predictability to the political universe (indicated by high P–3 scores). The actions of others are expected to occur within a fairly limited range of knowable behaviors. The expectations of these organizations is that the political objectives of others are primarily conflictual (indicated by low P–1 scores) and that hostile or violent actions are the preferred means of achieving those ends (indicated by the low P–2 scores). Actions outside of these expectations are therefore likely to be interpreted in one of two ways. Either they will be perceived as indicative of weakness, the behavior of an actor unwilling or unable to engage in its preferred options, or the action is likely to be re–interpreted, if possible, as conflictual, the result of re–framing the behavior to fit with the group's expectations. This is reinforced by the relative stability of the operational codes of these organizations which suggests a limited ability to respond to external factors.

This study also offers a cautionary note regarding the strategy of directly targeting organizational leadership. The primary leadership of al–Qaeda (bin Laden and Zawahiri) appear to be more moderate, particularly with regard to the utility of conflictual tactics. This holds true as well for Hamas in which the leadership subgroup displayed far more moderate tendencies approaching, in most cases, the values obtained from the state leaders. Periods of group threat for Hamas are also linked to instrumental shifts toward conflictual goals (low I–1 score) and with a greater emphasis on the use of conflictual actions to achieve those goals (low I–2 score). This suggests that counter-terrorism strategies that emphasize elimination of al–Qaeda and Hamas leadership may have the side effect of increasing the targeted organization's reliance upon violent action. However, it is equally true that the absence of these same shifts outside of periods of group threat may indicate that this response is

temporary indicating that policy makers will have to weigh short–term increased costs against the potential long–term value of leadership targeting.

The operational code divisions within Hamas have additional implications for anti-terror operations against them. The degree to which Hamas' political wings control their military wing is already the subject of some debate. Systematic targeting of the leadership of Hamas' political wings not only has the potential of radicalizing those wings but also of lessening their moderating influences upon the military wing. The degree of difference between the operational codes also however, indicates an opportunity for counter–terrorism efforts. If these differences can be accentuated into the provocation of schism, the military wing can be severed from political cover provided by the larger Hamas entity. Divorcing the actions of the military wing from the instrumental political objectives of Hamas has the potential for limiting the level of popular support for those actions. To the extent that this is similar to the Israeli strategy of encouraging the split between Hamas and Fatah the utility of this technique can be debated. At the very least the military wing would be largely severed from the operational support (financial and material) coming to it through the efforts of the political wings.

Where To Go From Here

While the results of this study certainly indicate that the operational code approach is a useful one to the study of terrorist organizations, the preliminary nature of much of this analysis suggests that additional applications of this approach are warranted. The confining of this project to the al–Qaeda and Hamas organizations was necessitated by practical considerations. However, the intent of this project has always been to develop a database of

operational codes for terrorist groups. Expansion beyond the two in this study is necessary for the exploration of a number of the tentative conclusions suggested by this research. In particular, the search for an operational code or operational code traits specific to terrorist organizations (whether shared across the group or specific to certain sub–elements) requires the study of additional groups. Similarly, while differences in the operational codes of al–Qaeda and Hamas have, in many cases, been linked to specific characteristics of those organizations, systematic correspondence of those operational code values and organizational traits cannot be accomplished without compilation of additional operational codes. Inclusion of other groups also opens the possibility of additional research questions outside the bounds of this project. Use of the operational code to typologically classify terrorist organizations is just one such possibility. Exploration of the differences between specific classes of organization is also possible. Are there belief system differences between the organizations that correspond to the different waves of Rappoport's four waves of terrorism? Are religiously oriented organizations truly distinct from other terrorist actors and if so, in what ways. The comparison of Fatah and Hamas would be potentially valuable in this regard. More importantly, the provision of a database of reproducible, statistically comparable measures of the political beliefs of terrorist organizations to the larger academic and policy communities will surely open the door to research paths beyond the immediate envisioning of this solitary researcher.

This is not to say that expansion of this work can only come about through the study of additional groups. The operational code work on al–Qaeda and Hamas is far from being exhausted. So long as these groups continue to exist as relevant political entities additional statements will continue to be released and are increasingly available in full–text translated

forms. Even within the time constraints of this study, additional statements occasionally become accessible. Documents are declassified or full–text translations become available of statements that were previously either un–translated or were unavailable in their full–text forms. The addition of these statements to the operational codes of al–Qaeda and Hamas increase the confidence in the accuracy of the values obtained, make possible the refinement of the previously conducted analyses, and provide the opportunity to explore research areas previously untouched. In the case of al–Qaeda additional statements from Zawahiri, allowing for a more confident derivation of his operational code, could confirm the presence of a division between the rest of al–Qaeda and its primary leaders, as well as allowing for the exploration of differences in the operational codes between bin Laden and Zawahiri. The limited numbers of leadership statements from Hamas eliminated the possibility of a similar leader to leader comparison however access to additional statements by those leaders would resolve this issue. The subgroup analyses of Hamas demonstrated significant belief system differences between its leadership and the Qassam Military Brigades. With additional leader statements it ought to be possible to determine whether differences in belief structure also occur between the internal and external political wings of the organization.

Deliberately excluded from this project were statements from leadership sources of both organizations that could not be directly linked to being representative of the organization. Introduction of those statements offers additional opportunities to explore the belief systems of these groups. An assumption of this project has been that the collective belief system of the organization is dominant and that personal beliefs either are replaced by the beliefs of the collective or are repressed in light of extreme pressures against dissension. Comparison of statements reflecting personal beliefs to those reflecting the organizational belief system

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would provide one means of testing this assumption. High degrees of coherence between personal and group operational codes would indicate a dominant collective identity while low levels of coherence would indicate repression of personal beliefs.

The addition of new material to the coding process is not the only avenue open for additional research. Alternative coding processes and comparison of the results of those processes was certainly indicated by the operational code of al–Qaeda. In this project the decision was made to code references to the divine as "other" a fact which, as was noted earlier, disguises the level of presumed divine guidance within al–Qaeda, potentially impacting indices that rely upon the ratio of "self" and "other" references. Comparison to an operational code generated with divine references coded as "self" or one excluding all divine references, is likely to be instructive as to the level of religious determinism experienced by the organization and could be expanded to Hamas in order to determine their relative levels of determinism.

Alternative methods of chronologic studies should also be explored, and particularly valuable may be the relationship between group operational codes over time and event data relevant to the organization. The lack of response of the al–Qaeda operational code to the events of 9/11 seems unusual at face value, and the general non–responsiveness of the operational codes of both organizations over time is not encouraging especially since cluster analyses suggested the potential for operational code shifts. However, it may be that the methods employed in this study for determination of operational code changes are not capable of illuminating the operational code differences across the groupings suggested by the cluster analyses. Employment of more sophisticated techniques of data analysis may prove more productive in this regard.

Concluding Remarks

To what degree are those labeled as 'terrorists' any different in the ways they think, believe, and act on the international stage from other international actors? Over the last few years, the motives and decision–making processes of these entities have been approached in a myriad of ways but definitive conclusions about these processes have proven elusive and are inherently limited by the secretive and insular nature of these groups. It does seem clear that the role of the political beliefs in these processes is prominent and this factor argues for the application of a strictly comparable quantitative measure of political beliefs for these actors, particularly if such a measure can be applied at–a–distance. The operational code approach, as it exists today, provides exactly that. As this project has demonstrated, it is an appropriate tool for the study of terrorist entities, one that is capable of yielding valuable insights, and has broad potential for future applications to the study of terrorism. It seems particularly appropriate to this researcher that an analysis form originated by Leites to study what he considered a "distinct type in social history," one that posed a fundamental challenge to the status quo of the international system of the 20th century, is today employed to study a set of actors challenging that system in the early part of the 21st century.

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Appendix One:
Alternative Formulation of the Operational Code of al–Qaeda

The following table lists the values for the al–Qaeda operational code had it been derived from the mean value of the six leader groups (see Appendix Two).

Table A1-1 – Operational Code of al-Qaeda (mean values of al–Qaeda leaders)

Operational Code Index	Group Assessed	N	Mean	Standard Deviation	T	Sig
P1	Al Qaeda	6	-.129	.138	-6.253	0.000
	State Leaders	35	.280	.195		
P2	Al Qaeda	6	-.652	.307	-6.141	0.001
	State Leaders	35	.133	.148		
P3	Al Qaeda	6	.123	.029	2.418	0.051
	State Leaders	35	.093	.023		
P4	Al Qaeda	6	.242	.121	0.570	0.591
	State Leaders	35	.212	.067		
P5	Al Qaeda	6	.970	.017	-1.477	0.196
	State Leaders	35	.980	.008		
I1	Al Qaeda	6	-.110	.317	-3.683	0.011
	State Leaders	35	.387	.226		
I2	Al Qaeda	6	-.664	.645	-3.074	0.027
	State Leaders	35	.149	.152		
I3	Al Qaeda	6	.194	.058	0.068	0.947
	State Leaders	35	.192	.089		
I4a	Al Qaeda	6	.710	.181	1.502	0.178
	State Leaders	35	.590	.180		
I4b	Al Qaeda	6	.685	.201	1.986	0.090
	State Leaders	35	.511	.184		
I5a Reward	Al Qaeda	6	.122	.030	-0.922	0.371
	State Leaders	35	.137	.065		
I5b Promise	Al Qaeda	6	.031	.018	-3.871	0.001
	State Leaders	35	.070	.041		
I5c Approve	Al Qaeda	6	.307	.075	-4.981	0.001
	State Leaders	35	.486	.111		
I5d Oppose	Al Qaeda	6	.127	.031	-0.987	0.344
	State Leaders	35	.142	.055		
I5e Threat	Al Qaeda	6	.065	.030	1.363	0.202
	State Leaders	35	.045	.048		
I5f Punish	Al Qaeda	6	.348	.101	5.214	0.002
	State Leaders	35	.119	.087		

Elimination of the Zarqawi statement and setting n=5 for al–Qaeda does not alter which indices are significant at the 0.10 level.

This method gives equal weight to the contributions of each leader but does not account for the assumed greater influence by bin Laden, and may be skewed by the inclusion of the Zarqawi statement and the communication from Zawahiri to Zarqawi. Even so, this operational code is quite similar to that utilized in Chapter Four. The resulting values differ from the state leader scores in the same direction on all but the P–4 and P–5 indices. Key indices such as P–1, P–2, I–1, I–2, and I–5f Punish differ significantly from the state leader

scores for both derivations. The primary differences appear in the tactical utility scores. The I–5a Reward score does not differ significantly from the state leaders in this derivation but is significantly lower in the chronologic derivation. In contrast, the I–5c Approve tactical utility is significantly lower than the state leader score in this derivation but does not differ significantly between the chronologic derivation and that of the state leaders.

Appendix Two:
Listing of al-Qaeda Statements According to Grouping Type

Al-Qaeda Statements Classified by Leader
Al-Qaeda statements were classified according to the individual making the address. Index values were derived from the total verb counts of all statements attributed to that individual. Index scores for bin Laden were constructed differently in order to avoid biasing the effect of his longer statements on those scores. In the case of bin Laden index values were derived from the mean value across seven statements and four groups of statements. The statement groups were used to avoid having to exclude statements not meeting the 1500 word minimum and the index values for those groups were derived from the total verb counts of all statements in that group. Individual statements are referred to in the text according to author and date of release. Statement groups are referred to according to a capital letter prefix indicating chronologic order followed by a three letter abbreviation for the appropriate leader. Designations in parentheses are the group labels from the cluster analyses. Statements noted as discounted were excluded from analyses that utilized the leader specific classification form.

Leader	Release Date	Length	Grouping
Osama bin Laden	2/23/1998	1053	solo (OBL98)
Osama bin Laden	1/3/1999	7465*	solo (OBL99a)
Osama bin Laden	6/10/1999	3548*	solo (OBL99b)
Osama bin Laden	9/24/2001	385	discounted
Osama bin Laden	10/7/2001	607	A-OBL (OBL01a)
Osama bin Laden	10/21/2001	3941*	A-OBL (OBL01a)
Osama bin Laden	11/1/2001	1032	B-OBL (OBL01b)
Osama bin Laden	11/3/2001	2377*	B-OBL (OBL01b)
Osama bin Laden	11/7/2001	1004	B-OBL (OBL01b)
Osama bin Laden	12/26/2001	4100*	solo (OBL01c)
Osama bin Laden	10/6/2002	336	C-OBL (OBL02)
Osama bin Laden	11/12/2002	619	C-OBL (OBL02)
Osama bin Laden	11/24/2002	3837*	C-OBL (OBL02)
Osama bin Laden	2/11/2003	2039*	solo (OBL03a)
Osama bin Laden	10/18/2003	1695*	solo (OBL03b)
Osama bin Laden	4/15/2004	1178	D-OBL (OBL04a)
Osama bin Laden	5/6/2004	3280*	D-OBL (OBL04a)
Osama bin Laden	10/30/2004	2309*	solo (OBL04b)
Abu Ghaith	10/9/2001	512	A-GHH (GHH)
Abu Ghaith	4/17/2002	162	A-GHH (GHH)
Abu Ghaith	5/xx/2002	853	A-GHH (GHH)
Ayman al-Zawahiri	10/8/2002	530	A-ZAW (ZAW)
Zawahiri	5/21/2003	514	A-ZAW (ZAW)
Zawahiri	7/9/2005	6302*	A-ZAW (ZAW)
Zawahiri	8/4/2005	361	A-ZAW (ZAW)
Abu Jandal	8/3/2004	4414*	solo (JAN)
Zarqawi	4/6/2004	4603*	solo (ZAR)
Sidique Khan	9/1/2005	349	A-UNK (UNK)

Unknown	10/10/2001	639	A-UNK (UNK)
Unknown	12/6/2002	881	A-UNK (UNK)
Unknown	5/30/2004	908	A-UNK (UNK)

Al-Qaeda Statements Classified Chronologically

Because of the brevity of some statements, individual documents whose release dates were close to one another were grouped in order to meet a 1500 word minimum. Most statements that did meet the minimum were kept as separate data points and operational code indices were calculated according the verb counts within those statements only. Where possible statements not meeting the minimum were grouped with other chronologically close below minimum statements and indices were computed over the sum of verb counts from statements within that group. Where this was not possible, the short statements were either included in the verb counts of statements that met the minimum or were discounted. In all cases statement groups were constructed without concern to statement author. Individual statements are referred to in the text according to author and date of release. Statement groups are referred to in the text according to a capital letter prefix indicating chronologic order of that statement group. Statements noted as discounted were excluded from analyses that utilized the chronologic classification form.

Leader	Document	Length	Grouping
OBL	2/23/1998	1053	solo
OBL	1/3/1999	7465*	solo
OBL	6/10/1999	3548*	solo
OBL	9/24/2001	385	A
OBL	10/7/2001	607	A
OBL	10/21/2001	3941*	solo
OBL	11/1/2001	1032	B
OBL	11/3/2001	2377*	B
OBL	11/7/2001	1004	B
OBL	12/26/2001	4100*	solo
OBL	10/6/2002	336	C
OBL	11/12/2002	619	C
OBL	11/24/2002	3837*	C
OBL	2/11/2003	2039*	solo
OBL	10/18/2003	1695*	solo
OBL	4/15/2004	1178	D
OBL	5/7/2004	3280*	solo
OBL	10/30/2004	2309*	solo
Ghaith	10/9/2001	512	A
Ghaith	4/17/2002	162	discounted
Ghaith	5/xx/2002	853	discounted
Zawahiri	10/8/2002	530	C
Zawahiri	5/21/2003	514	discounted
Zawahiri	7/9/2005	6302*	solo
Zawahiri	8/4/2005	361	E
Abu Jandal	8/3/2004	4414*	solo
Zarqawi	4/6/2004	4603*	D
Sidique Khan	9/1/2005	349	E

Unknown	10/10/2001	639	A
Unknown	12/6/2002	881	C
Unknown	5/30/2004	908	D

Organized chronologically the above statements are ordered as follows:

OBL 2/23/98
OBL 1/3/99
OBL 6/10/99
Group A:
    OBL 9/24/01,
    OBL 10/7/01,
    GHH 10/9/01,
    UNK 10/10/2001
Group B:
    OBL 11/1/2001,
    OBL 11/3/2001,
    OBL 11/7/2001
    OBL 10/21/01
    OBL 12/26/01
Group C:
    OBL 10/6/2002
    ZAW 10/8/2002
    OBL 11/12/2002
    OBL 11/24/2002
    UNK 12/6/2002
    OBL 2/11/2003
    OBL 10/18/2003
Group D:
    ZAR 4/6/2004
    OBL 4/15/2004
    UNK 5/30/2004
Group E:
    ZAW 7/9/2005
    UNK 9/1/2005
    OBL 5/7/2004
    JAN 8/3/2004
    OBL 10/30/2004

Appendix Three:
Listing of Hamas Statements According to Grouping Type

Hamas statements classified chronologically
Due to the brevity of most Hamas statements, documents whose release dates were close to one another were grouped in order to meet the 1500 word minimum. Where possible, statements were grouped to correspond to calendar months. Occasionally, if enough text was available a monthly grouping would be divided into two or more statement groups. Index values for those groups were derived from the total verb counts of all statements in that group. In some cases individual documents reached or approached the 1500 word minimum and were coded as separate groups unto themselves. Statements are identified by the date of their release. Instances of unknown or contradictory release dates are indicated by the replacement of the undetermined portion of the date with an X. A statement release August 1, 2002 would be identified as 2002_08_01 while a statement release sometime in June of that year would be 2002_06_xx. Where known, the attributed author is also listed. If no attribution is given, it is presumed to be attributed to the organization as a whole. The following is the complete list of chronologic groupings used for the determination of the group level operational code of Hamas in chapter four.

Statement Identifier	Group Designation	Length	Attribution	Group #
1987_12_14	pre-1994	457		1
1988_08_18	pre-1994	8951		
1988_xx_xx	pre-1994	3604		
1989_xx_xx	pre-1994	7487	multiple leaders	
1994_04_16	1994_A	1419	Political Bureau	2
1996_03_13	1996_A	2493		3
1998_04_09	1998_A	572		4
1998_10_23	1998_A	3567		
1998_12_17	1998_A	598		
1999_02_02	1999_A	611		5
1999_03_20	1999_A	237	Political Bureau	
1999_05_05	1999_B	463		6
1999_05_18	1999_B	732		
1999_06_05	1999_B	653		
1999_09_22a	1999_C	507	Khaled Mishaal	7
1999_09_22b	1999_C	372		
1999_10_31	1999_C	501		
1999_11_02	1999_C	658		
1999_11_09	1999_C	299		
1999_11_24	1999_4	263		8
1999_11_30	1999_4	363		
1999_12_02	1999_4	301		
1999_12_08	1999_4	1320		
2000_02_03	2000_1	477		9
2000_02_05	2000_1	669		
2000_02_09	2000_1	394		

2000_02_25	2000_1	461		
2000_02_27	2000_1	407		
2000_03_10	2000_2	739		10
2000_03_11	2000_2	558		
2000_04_09	2000_2	456		
2000_04_10	2000_2	296	Info. Bureau	
2000_04_17	2000_2	1086	Khaled Mishaal	
2000_04_21	2000_2	919		
2000_05_03	2000_3	208	Info. Bureau	11
2000_05_14	2000_3	788		
2000_05_15a	2000_3	518		
2000_05_15b	2000_3	398		
2000_05_16	2000_3	559		
2000_05_24	2000_3	579		
2000_07_04	2000_4	437		12
2000_07_10	2000_4	1265		
2000_07_15	2000_4	737		
2000_07_23	2000_4	1069		
2000_07_27	2000_4	1024		
2000_07_30	2000_4	317		
2000_08_03	2000_5	643		13
2000_08_07	2000_5	343		
2000_08_10	2000_5	432		
2000_08_16	2000_5	457	Info. Office	
2000_08_20	2000_5	1440	Dept. of Islamic Relations	
2000_08_27	2000_5	1241		
2000_09_02	2000_6	865		14
2000_09_27	2000_6	456		
2000_09_29a	2000_6	658		
2000_09_29b	2000_6	142		
2000_10_01	2000_7	1274		15
2000_10_03	2000_7	1181		
2000_10_04	2000_7	636		
2000_10_07a	2000_7	1040		
2000_10_07b	2000_7	506		
2000_10_08	2000_7	517		
2000_10_09	2000_7	1133		
2000_10_12	2000_8	771		16
2000_10_14	2000_8	158		
2000_10_15a	2000_8	606		
2000_10_15b	2000_8	623		
2000_10_15c	2000_8	226		
2000_10_17	2000_8	606		
2000_10_25	2000_9	439		17
2000_10_26	2000_9	1432		
2000_10_31	2000_9	578		
2000_11_02a	2000_10	1335		18
2000_11_02b	2000_10	363		

2000_11_09	2000_10	1245		
2000_11_12	2000_10	1117	Ahmed Yassin	
2000_11_21	2000_10	991		
2000_11_23	2000_10	214		
2000_11_27	2000_10	1203		
2000_12_02	2000_11	1311		19
2000_12_09	2000_11	1609		
2000_12_10	2000_12	563		20
2000_12_13a	2000_12	186		
2000_12_13b	2000_12	240		
2000_12_14	2000_12	1021		
2000_12_15a	2000_12	486		
2000_12_15b	2000_12	314		
2000_12_26	2000_13	1146		21
2000_12_31	2000_13	366		
2001_01_04	2001_1	1118		22
2001_01_07	2001_1	639		
2001_01_15	2001_1	310	Qassam Brigades	
2001_01_21	2001_1	353	Qassam Brigades	
2001_01_23	2001_1	1376		
2001_01_28	2001_1	358	Qassam Brigades	
2001_02_01	2001_2	494		23
2001_02_13	2001_2	424		
2001_03_22	2001_2	317	Qassam Brigades	
2001_03_27a	2001_2	1522	Khaled Mishaal	
2001_03_27b	2001_2	168	Qassam Brigades	
2001_03_27c	2001_2	290		
2001_03_31	2001_2	361	Qassam Brigades	
2001_04_03	2001_3	267		24
2001_04_06	2001_3	616		
2001_04_10a	2001_3	1345		
2001_04_10b	2001_3	594		
2001_04_11a	2001_3	349		
2001_04_11b	2001_3	429		
2001_04_16	2001_3	488		
2001_04_18	2001_3	221	Qassam Brigades	
2001_04_19	2001_3	144		
2001_04_27	2001_3	181	Qassam Brigades	
2001_05_01	2001_4	521		25
2001_05_12	2001_4	477		
2001_05_14	2001_4	1034		
2001_06_04	2001_5	367	Qassam Brigades	26
2001_06_05a	2001_5	876		
2001_06_05b	2001_5	147		
2001_06_05c	2001_5	157	Qassam Brigades	
2001_06_13	2001_5	626		
2001_06_14	2001_5	1617		
2001_06_15	2001_6	175		27

2001_06_19	2001_6	1147		
2001_06_20	2001_6	240		
2001_06_22	2001_6	267	Qassam Brigades	
2001_06_23	2001_6	843		
2001_06_28a	2001_6	574		
2001_06_28b	2001_6	134		
2001_06_30	2001_6	229		
2001_07_01	2001_7	316		28
2001_07_02	2001_7	296		
2001_07_03	2001_7	272		
2001_07_08	2001_7	214	Qassam Brigades	
2001_07_13	2001_7	198	Qassam Brigades	
2001_07_17	2001_7	407		
2001_07_19	2001_7	686		
2001_07_24	2001_7	303		
2001_07_28	2001_7	720		
2001_07_29	2001_7	341	Dept. Islamic Relations	
2001_07_31a	2001_7	585		
2001_07_31b	2001_7	135		
2001_08_01	2001_8	888		29
2001_08_09	2001_8	256	Qassam Brigades	
2001_08_20	2001_8	702		
2001_09_05	2001_9	260	Qassam Brigades	30
2001_09_18	2001_9	870		
2001_09_26	2001_9	301	Qassam Brigades	
2001_09_28	2001_9	1455		
2001_10_02	2001_10	283	Qassam Brigades	31
2001_10_03	2001_10	306		
2001_10_09	2001_10	405	Qassam Brigades	
2001_10_14	2001_10	329	Qassam Brigades	
2001_10_15	2001_10	472		
2001_10_19	2001_10	480		
2001_10_21	2001_10	662		
2001_10_23	2001_10	401	Qassam Brigades	
2001_10_24	2001_10	489		
2001_10_26	2001_10	270	Qassam Brigades	
2001_11_03	2001_11	449	Info. Bureau	32
2001_11_13	2001_11	532	Info. Bureau	
2001_11_24a	2001_11	290	Qassam Brigades	
2001_11_24b	2001_11	585		
2001_11_25	2001_11	1024		
2001_11_26	2001_11	247	Qassam Brigades	
2001_11_27	2001_11	226	Qassam Brigades	
2001_12_02a	2001_12	313	Qassam Brigades	33
2001_12_02b	2001_12	584	Qassam Brigades	
2001_12_04	2001_12	394		
2001_12_11a	2001_12	582		
2001_12_11b	2001_12	199		

2001_12_17a	2001_12	569		
2001_12_17b	2001_12	528		
2001_12_21a	2001_12	201		
2001_12_21b	2001_12	182	Qassam Brigades	
2001_12_23	2001_12	215		
2001_12_27	2001_12	672		
2002_01_08	2002_1	303		34
2002_01_09	2002_1	442	Qassam Brigades	
2002_01_12	2002_1	422		
2002_01_15	2002_1	316	Qassam Brigades	
2002_01_16	2002_1	258		
2002_01_22	2002_1	140		
2002_01_31a	2002_1	794		
2002_01_31b	2002_1	239	Qassam Brigades	
2002_02_04	2002_2	640		35
2002_02_07	2002_2	255	Qassam Brigades	
2002_02_12	2002_2	285	Qassam Brigades	
2002_02_16	2002_2	279	Qassam Brigades	
2002_02_17a	2002_2	153		
2002_02_17b	2002_2	170		
2002_02_28	2002_2	345		
2002_03_08	2002_3	313		36
2002_03_09	2002_3	287	Qassam Brigades	
2002_03_13	2002_3	364		
2002_03_26	2002_3	274		
2002_03_27	2002_3	475	Qassam Brigades	
2002_03_28	2002_3	391		
2002_03_29	2002_3	350	Qassam Brigades	
2002_04_02	2002_4	518		37
2002_04_06	2002_4	477		
2002_04_08	2002_4	783		
2002_04_12	2002_4	491		
2002_04_17	2002_4	214		
2002_04_24	2002_4	388		
2002_04_25a	2002_4	853		
2002_04_25b	2002_4	164		
2002_04_28	2002_4	332	Qassam Brigades	
2002_04_29	2002_4	319		
2002_05_02	2002_5	602	Qassam Brigades	38
2002_05_03	2002_5	383	Qassam Brigades	
2002_05_04	2002_5	235		
2002_05_10	2002_5	394		
2002_05_16	2002_5	655		
2002_05_17	2002_5	484		
2002_05_19	2002_5	277	Info. Bureau	
2002_05_20	2002_5	196		
2002_05_29	2002_5	281		
2002_06_05	2002_6	192		39

2002_06_11	2002_6	282	Qassam Brigades	
2002_06_13	2002_6	583	Qassam Brigades	
2002_06_15	2002_6	195	Qassam Brigades	
2002_06_23	2002_6	470		
2002_06_24	2002_6	404	Qassam Brigades	
2002_06_26	2002_6	833		
2002_07_01	2002_7	367	Qassam Brigades	40
2002_07_03	2002_7	262	Qassam Brigades	
2002_07_14	2002_7	258	Qassam Brigades	
2002_07_16	2002_7	356	Qassam Brigades	
2002_07_23a	2002_7	489		
2002_07_23b	2002_7	392		
2002_07_23c	2002_7	359	Qassam Brigades	
2002_07_31	2002_7	323	Qassam Brigades	
2002_08_04a	2002_8	445	Qassam Brigades	41
2002_08_04b	2002_8	404		
2002_08_05	2002_8	169		
2002_08_07	2002_8	290	Qassam Brigades	
2002_08_11	2002_8	268	Qassam Brigades	
2002_08_14	2002_8	336	Qassam Brigades	
2002_08_19	2002_8	441		
2002_08_30	2002_8	498		
2002_08_31a	2002_8	404		
2002_08_31b	2002_8	235		
2002_09_01	2002_9	316	Qassam Brigades	42
2002_09_04	2002_9	315		
2002_09_12a	2002_9	698		
2002_09_12b	2002_9	129	Qassam Brigades	
2002_09_19a	2002_9	276	Qassam Brigades	
2002_09_19b	2002_9	276		
2002_09_23	2002_9	234		
2002_09_25a	2002_9	181	Qassam Brigades	
2002_09_25b	2002_9	224	Qassam Brigades	
2002_09_25c	2002_9	227	Qassam Brigades	
2002_09_27	2002_9	139	Qassam Brigades	
2002_09_28	2002_9	302	Qassam Brigades	
2002_10_01	2002_10	335		43
2002_10_05	2002_10	188	Qassam Brigades	
2002_10_07a	2002_10	284		
2002_10_07b	2002_10	225		
2002_10_08	2002_10	202	Qassam Brigades	
2002_10_09a	2002_10	181	Qassam Brigades	
2002_10_09b	2002_10	462		
2002_10_12	2002_10	172	Qassam Brigades	
2002_10_15	2002_10	188		
2002_10_27	2002_10	107	Qassam Brigades	
2002_10_31a	2002_10	168		
2002_10_31b	2002_10	337	Qassam Brigades	

2002_11_06a	2002_11	129	Info. Bureau	44
2002_11_06b	2002_11	248	Qassam Brigades	
2002_11_11	2002_11	194		
2002_11_17	2002_11	419	Qassam Brigades	
2002_11_18	2002_11	295	Qassam Brigades	
2002_11_21	2002_11	467	Qassam Brigades	
2002_11_22	2002_11	288	Qassam Brigades	
2002_11_27	2002_11	236	Qassam Brigades	
2002_12_02a	2002_12	289		45
2002_12_02b	2002_12	800		
2002_12_04	2002_12	352		
2002_12_06	2002_12	581		
2002_12_08	2002_12	441		
2002_12_10	2002_12	178	Qassam Brigades	
2002_12_15a	2002_12	1042		
2002_12_15b	2002_12	295	Qassam Brigades	
2002_12_22	2002_12	441		
2002_12_23	2002_12	324	Qassam Brigades	
2002_12_25	2002_12	345	Qassam Brigades	
2002_12_26a	2002_12	130	Qassam Brigades	
2002_12_26b	2002_12	171	Qassam Brigades	
2002_12_30	2002_12	273	Qassam Brigades	
2003_01_02	2003_1	132	Qassam Brigades	46
2003_01_03	2003_1	275	Qassam Brigades	
2003_01_12	2003_1	157	Qassam Brigades	
2003_01_14	2003_1	179	Qassam Brigades	
2003_01_17	2003_1	171	Qassam Brigades	
2003_01_19	2003_1	173	Qassam Brigades	
2003_01_21	2003_1	272		
2003_01_24	2003_1	191	Qassam Brigades	
2003_01_25	2003_1	443	Qassam Brigades	
2003_01_26	2003_1	132	Qassam Brigades	
2003_01_27	2003_1	212	Qassam Brigades	
2003_01_30	2003_1	168	Qassam Brigades	
2003_01_31	2003_1	315	Qassam Brigades	
2003_02_04	2003_1	144	Qassam Brigades	
2003_05_07	2003_2	2105	Ahmed Yassin	47
2004_03_22	2004_1	431		48
2004_03_24	2004_1	265		
2005_08_20	2005_1	1005	Hassam Yusef	49
2006_01_02	2006_1	844	Khaled Mishaal	50
2006_04_24	2006_1	884	Abu Marzouk	

Hamas Statements Classified by Subgroup

For the analysis of the internal divisions within Hamas statements were classified as belonging to the Hamas leadership, the Qassam Military Brigades, or non-attributed categories. The breakdown for those three categories is as follows.

Hamas Leadership Statements SubGroup *(divided into 6 statement groups)*

Statement Identifier	Group Designation	Length	Attribution	Group #
2005_08_20	Yusef_A*	1005	Hassam Yusef	1*
1999_09_22a	Mishaal A&B	507	Khaled Mishaal	2
2000_04_17	Mishaal A&B	1086	Khaled Mishaal	
2001_03_27a	Mishaal C	1522	Khaled Mishaal	3
2006_01_02	Mishaal & Marzouk	844	Khaled Mishaal	4
2006_04_24	Mishaal & Marzouk	884	Abu Marzouk	
2000_11_12	Yassin_A*	1117	Ahmed Yassin	5*
2003_05_07	Yassin_B	2105	Ahmed Yassin	6

* = below 1500 word minimum

Qassam Brigade Statements SubGroup *(divided into 10 statement groups)*

Statement Identifier	Group Designation	Length	Attribution	Group #
2001_01_15	Qassam_A	310	Qassam Brigades	1
2001_01_21	Qassam_A	353	Qassam Brigades	
2001_01_28	Qassam_A	358	Qassam Brigades	
2001_03_22	Qassam_A	317	Qassam Brigades	
2001_03_27b	Qassam_A	168	Qassam Brigades	
2001_03_31	Qassam_A	361	Qassam Brigades	
2001_04_18	Qassam_A	221	Qassam Brigades	
2001_04_27	Qassam_A	181	Qassam Brigades	
2001_06_04	Qassam_A	367	Qassam Brigades	
2001_06_05c	Qassam_A	157	Qassam Brigades	
2001_06_22	Qassam_A	267	Qassam Brigades	
2001_07_08	Qassam_A	214	Qassam Brigades	
2001_07_13	Qassam_A	198	Qassam Brigades	
2001_08_09	Qassam_A	256	Qassam Brigades	
2001_09_05	Qassam_A	260	Qassam Brigades	
2001_09_26	Qassam_B	301	Qassam Brigades	2
2001_10_02	Qassam_B	283	Qassam Brigades	
2001_10_09	Qassam_B	405	Qassam Brigades	
2001_10_14	Qassam_B	329	Qassam Brigades	
2001_10_23	Qassam_B	401	Qassam Brigades	
2001_10_26	Qassam_B	270	Qassam Brigades	
2001_11_24a	Qassam_C	290	Qassam Brigades	3
2001_11_26	Qassam_C	247	Qassam Brigades	
2001_11_27	Qassam_C	226	Qassam Brigades	
2001_12_02a	Qassam_C	313	Qassam Brigades	
2001_12_02b	Qassam_C	584	Qassam Brigades	
2001_12_21b	Qassam_C	182	Qassam Brigades	

2002_01_09	Qassam_C	442	Qassam Brigades	
2002_01_15	Qassam_C	316	Qassam Brigades	
2002_01_31b	Qassam_D	239	Qassam Brigades	4
2002_02_07	Qassam_D	255	Qassam Brigades	
2002_02_12	Qassam_D	285	Qassam Brigades	
2002_02_16	Qassam_D	279	Qassam Brigades	
2002_03_09	Qassam_D	287	Qassam Brigades	
2002_03_27	Qassam_D	475	Qassam Brigades	
2002_03_29	Qassam_D	350	Qassam Brigades	
2002_04_28	Qassam_E	332	Qassam Brigades	5
2002_05_02	Qassam_E	602	Qassam Brigades	
2002_05_03	Qassam_E	383	Qassam Brigades	
2002_06_11	Qassam_E	282	Qassam Brigades	
2002_06_13	Qassam_E	583	Qassam Brigades	
2002_06_15	Qassam_E	195	Qassam Brigades	
2002_06_24	Qassam_E	404	Qassam Brigades	
2002_07_01	Qassam_F	367	Qassam Brigades	6
2002_07_03	Qassam_F	262	Qassam Brigades	
2002_07_14	Qassam_F	258	Qassam Brigades	
2002_07_16	Qassam_F	356	Qassam Brigades	
2002_07_23c	Qassam_F	359	Qassam Brigades	
2002_07_31	Qassam_F	323	Qassam Brigades	
2002_08_04a	Qassam_G	445	Qassam Brigades	7
2002_08_07	Qassam_G	290	Qassam Brigades	
2002_08_11	Qassam_G	268	Qassam Brigades	
2002_08_14	Qassam_G	336	Qassam Brigades	
2002_09_01	Qassam_G	316	Qassam Brigades	
2002_09_12b	Qassam_H	129	Qassam Brigades	8
2002_09_19a	Qassam_H	276	Qassam Brigades	
2002_09_25a	Qassam_H	181	Qassam Brigades	
2002_09_25b	Qassam_H	224	Qassam Brigades	
2002_09_25c	Qassam_H	227	Qassam Brigades	
2002_09_27	Qassam_H	139	Qassam Brigades	
2002_09_28	Qassam_H	302	Qassam Brigades	
2002_10_05	Qassam_H	188	Qassam Brigades	
2002_10_08	Qassam_H	202	Qassam Brigades	
2002_10_09a	Qassam_H	181	Qassam Brigades	
2002_10_12	Qassam_H	172	Qassam Brigades	
2002_10_27	Qassam_I	107	Qassam Brigades	9
2002_10_31b	Qassam_I	337	Qassam Brigades	
2002_11_06b	Qassam_I	248	Qassam Brigades	
2002_11_17	Qassam_I	419	Qassam Brigades	
2002_11_18	Qassam_I	295	Qassam Brigades	
2002_11_21	Qassam_I	467	Qassam Brigades	
2002_11_22	Qassam_I	288	Qassam Brigades	
2002_11_27	Qassam_I	236	Qassam Brigades	
2002_12_10	Qassam_J	178	Qassam Brigades	10
2002_12_15b	Qassam_J	295	Qassam Brigades	

2002_12_23	Qassam_J	324	Qassam Brigades	
2002_12_25	Qassam_J	345	Qassam Brigades	
2002_12_26a	Qassam_J	130	Qassam Brigades	
2002_12_26b	Qassam_J	171	Qassam Brigades	
2002_12_30	Qassam_J	273	Qassam Brigades	
2003_01_02	Qassam_J	132	Qassam Brigades	
2003_01_03	Qassam_J	275	Qassam Brigades	
2003_01_12	Qassam_J	157	Qassam Brigades	
2003_01_14	Qassam_J	179	Qassam Brigades	
2003_01_17	Qassam_J	171	Qassam Brigades	
2003_01_19	Qassam_J	173	Qassam Brigades	
2003_01_24	Qassam_J	191	Qassam Brigades	
2003_01_25	Qassam_J	443	Qassam Brigades	
2003_01_26	Qassam_J	132	Qassam Brigades	
2003_01_27	Qassam_J	212	Qassam Brigades	
2003_01_30	Qassam_J	168	Qassam Brigades	
2003_01_31	Qassam_J	315	Qassam Brigades	
2003_02_04	Qassam_J	144	Qassam Brigades	

Non–Attributed Statements Subgroup *(divided into 40 statement groups)*

Statement Identifier	Group Designation	Length	Attribution	Group #
1987_12_14	Baseline, pre-1994	457		1
1988_08_18	Baseline, pre-1994	8951		
1988_xx_xx	Baseline, pre-1994	3604		
1994_04_16	1994_A	1419	Political Bureau	2
1996_03_13	1996_A	2493		3
1998_04_09	1998_A	572		4
1998_10_23	1998_A	3567		
1998_12_17	1998_A	598		
1999_02_02	1999_A*	611		5*
1999_03_20	1999_A	237	Political Bureau	
1999_05_05	1999_B	463		6
1999_05_18	1999_B	732		
1999_06_05	1999_B	653		
1999_09_22b	1999_C	372		7
1999_10_31	1999_C	501		
1999_11_02	1999_C	658		
1999_11_09	1999_C	299		
1999_11_24	1999_D	263		8
1999_11_30	1999_D	363		
1999_12_02	1999_D	301		
1999_12_08	1999_D	1320		
2000_02_03	2000_A	477		9
2000_02_05	2000_A	669		
2000_02_09	2000_A	394		
2000_02_25	2000_A	461		
2000_02_27	2000_A	407		

2000_03_10	2000_B	739		10
2000_03_11	2000_B	558		
2000_04_09	2000_B	456		
2000_04_10	2000_B	296	Info. Bureau	
2000_04_21	2000_B	919		
2000_05_03	2000_C	208	Info. Bureau	11
2000_05_14	2000_C	788		
2000_05_15a	2000_C	518		
2000_05_15b	2000_C	398		
2000_05_16	2000_C	559		
2000_05_24	2000_C	579		
2000_07_04	2000_D	437		12
2000_07_10	2000_D	1265		
2000_07_15	2000_D	737		
2000_07_23	2000_D	1069		
2000_07_27	2000_D	1024		
2000_07_30	2000_D	317		
2000_08_03	2000_E	643		13
2000_08_07	2000_E	343		
2000_08_10	2000_E	432		
2000_08_16	2000_E	457	Info. Office	
2000_08_20	2000_E	1440	Dept. of Islamic Relations	
2000_08_27	2000_E	1241		
2000_09_02	2000_F	865		14
2000_09_27	2000_F	456		
2000_09_29a	2000_F	658		
2000_09_29b	2000_F	142		
2000_10_01	2000_G	1274		15
2000_10_03	2000_G	1181		
2000_10_04	2000_G	636		
2000_10_07a	2000_G	1040		
2000_10_07b	2000_G	506		
2000_10_08	2000_G	517		
2000_10_09	2000_G	1133		
2000_10_12	2000_H	771		16
2000_10_14	2000_H	158		
2000_10_15a	2000_H	606		
2000_10_15b	2000_H	623		
2000_10_15c	2000_H	226		
2000_10_17	2000_H	606		
2000_10_25	2000_I	439		17
2000_10_26	2000_I	1432		
2000_10_31	2000_I	578		
2000_11_02a	2000_J	1335		18
2000_11_02b	2000_K	363		19
2000_11_09	2000_K	1245		
2000_11_21	2000_L	991		20
2000_11_23	2000_L	214		

2000_11_27	2000_L	1203	
2000_12_02	2000_L	1311	
2000_12_09	2000_L	1609	
2000_12_10	2000_L	563	
2000_12_13a	2000_L	186	
2000_12_13b	2000_L	240	
2000_12_14	2000_L	1021	
2000_12_15a	2000_L	486	
2000_12_15b	2000_L	314	
2000_12_26	2000_M	1146	21
2000_12_31	2000_M	366	
2001_01_04	2001_A	1118	22
2001_01_07	2001_A	639	
2001_01_23	2001_A	1376	
2001_02_01	2001_A	494	
2001_02_13	2001_A	424	
2001_03_27c[124]	2001_C	290	23
2001_04_03	2001_C	267	
2001_04_06	2001_C	616	
2001_04_10a	2001_C	1345	
2001_04_10b	2001_C	594	
2001_04_11a	2001_C	349	
2001_04_11b	2001_C	429	
2001_04_16	2001_C	488	
2001_04_19	2001_C	144	
2001_05_01	2001_D	521	24
2001_05_12	2001_D	477	
2001_05_14	2001_D	1034	
2001_06_05a	2001_E	876	25
2001_06_05b	2001_E	147	
2001_06_13	2001_E	626	
2001_06_14	2001_E	1617	
2001_06_15	2001_E	175	
2001_06_19	2001_E	1147	
2001_06_20	2001_E	240	
2001_06_23	2001_E	843	
2001_06_28a	2001_E	574	
2001_06_28b	2001_E	134	
2001_06_30	2001_E	229	
2001_07_01	2001_F	316	26
2001_07_02	2001_F	296	
2001_07_03	2001_F	272	
2001_07_17	2001_F	407	
2001_07_19	2001_F	686	

[124] After removal of the Qassam and Leadership attributed statements from the 2001_B group only the 290 word 2001_03_27c statement remained. This statement was shifted into the 2001_C group and the 2001_B was removed from the analysis.

2001_07_24	2001_F	303		
2001_07_28	2001_F	720		
2001_07_29	2001_F	341	Dept. Islamic Relations	
2001_07_31a	2001_F	585		
2001_07_31b	2001_F	135		
2001_08_01	2001_G	888		27
2001_08_20	2001_G	702		
2001_09_18	2001_H	870		28
2001_09_28	2001_H	1455		
2001_10_03	2001_I	306		29
2001_10_15	2001_I	472		
2001_10_19	2001_I	480		
2001_10_21	2001_I	662		
2001_10_24	2001_I	489		
2001_11_03	2001_J	449	Info. Bureau	30
2001_11_13	2001_J	532	Info. Bureau	
2001_11_24b	2001_J	585		
2001_11_25	2001_J	1024		
2001_12_04	2001_K	394		31
2001_12_11a	2001_K	582		
2001_12_11b	2001_K	199		
2001_12_17a	2001_K	569		
2001_12_17b	2001_K	528		
2001_12_21a	2001_K	201		
2001_12_23	2001_K	215		
2001_12_27	2001_K	672		
2002_01_08	2002_A	303		32
2002_01_12	2002_A	422		
2002_01_16	2002_A	258		
2002_01_22	2002_A	140		
2002_01_31a	2002_A	794		
2002_02_04[125]	2002_A	640		
2002_02_17a	2002_C	153		33
2002_02_17b	2002_C	170		
2002_02_28	2002_C	345		
2002_03_08	2002_C	313		
2002_03_13	2002_C	364		
2002_03_26	2002_C	274		
2002_03_28	2002_C	391		
2002_04_02	2002_D	518		34
2002_04_06	2002_D	477		
2002_04_08	2002_D	783		
2002_04_12	2002_D	491		
2002_04_17	2002_D	214		

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[125] The 2002_B group was removed. The 2002_02_04 statement was shifted to the 2002_A group. The 2002_02_17a, 2002_02_17b, and 2002_02_28 statements were shifted into the 2002_C group.

2002_04_24	2002_D	388		
2002_04_25a	2002_D	853		
2002_04_25b	2002_D	164		
2002_04_29	2002_D	319		
2002_05_04	2002_E	235		35
2002_05_10	2002_E	394		
2002_05_16	2002_E	655		
2002_05_17	2002_E	484		
2002_05_19	2002_E	277	Info. Bureau	
2002_05_20	2002_E	196		
2002_05_29	2002_E	281		
2002_06_05[126]	2002_E	192		
2002_06_23[127]	2002_G	470		36
2002_06_26	2002_G	833		
2002_07_23a	2002_G	489		
2002_07_23b	2002_G	392		
2002_08_04b	2002_H	404		37
2002_08_05	2002_H	169		
2002_08_19	2002_H	441		
2002_08_30	2002_H	498		
2002_08_31a	2002_H	404		
2002_08_31b	2002_H	235		
2002_09_04[128]	2002_H	315		
2002_09_12a	2002_H	698		
2002_09_19b	2002_H	276		
2002_09_23[129]	2002_J	234		38
2002_10_01	2002_J	335		
2002_10_07a	2002_J	284		
2002_10_07b	2002_J	225		
2002_10_09b	2002_J	462		
2002_10_15	2002_J	188		
2002_10_31a	2002_J	168		
2002_11_11[130]	2002_J	194		
2002_12_02a[131]	2002_L	289		39
2002_12_02b	2002_L	800		
2002_12_04	2002_L	352		
2002_12_06	2002_L	581		
2002_12_08	2002_L	441		

[126] The 2002_06_05 statement was shifted to the 2002_E group from the 2002_F group.
[127] The 2002_06_23 and 2002_06_26 statements were shifted from the 2002_F group to the 2002_G group and the 2002_F group was eliminated from analysis.
[128] The 2002_09_04, 2002_09_12a and 2002_09_19 statements were shifted to the 2002_H group.
[129] The 2002_09_23 was shifted from the 2002_I group to the 2002_J group. The 2002_I group was eliminated from the analysis.
[130] The 2002_11_11 statement was shifted from the 2002_K group to the 2002_J group.
[131] The 2002_K group was eliminated from analysis.

2002_12_15a	2002_L	1042	
2002_12_22	2002_L	441	
2003_01_21[132]	2003_L	272	
2004_03_22	2004_A*	431	40*
2004_03_24	2004_A	265	

* = below 1500 word minimum

Removal of the Qassam Brigade and Hamas Leadership statements from the chronological list required the restructuring of the remaining non-attributed statements. This entailed the elimination of certain statement groups and the movement of some statements into other statement groups. These changes are indicated in the footnotes at the bottom of this page.

Hamas Success / Threat / Neutral Statement Groups

For the organizational evolution analysis, the above chronologic statement groups were classified into three categories: periods of success, periods of threat, and neutral periods. All statement groups not listed in the following two categories were classified in the neutral category.

Periods of group success	Periods of group threat
1994_A	pre_1994
1998_A	1996_A
2000_K	1999_C
2001_A	1999_D
2001_B	2000_A
2001_E	2000_B
2001_G	2000_D
2001_H	2001_F
2001_J	2002_G
2001_K	2002_H
2002_B	2002_I
2002_C	2004_A
2002_D	2005_A
2002_L	
2003_A	
2003_B	
2006_A	

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[132] The 2003_01_21 statement was added to the 2003_L group.

Appendix Four:
Results of Cluster Analyses of Hamas Statements by Subgroup

Graph A4-1 – Dendrogram of the Hierarchical Cluster Analysis of all Hamas Statements (Hamas statements organized by subgroup)
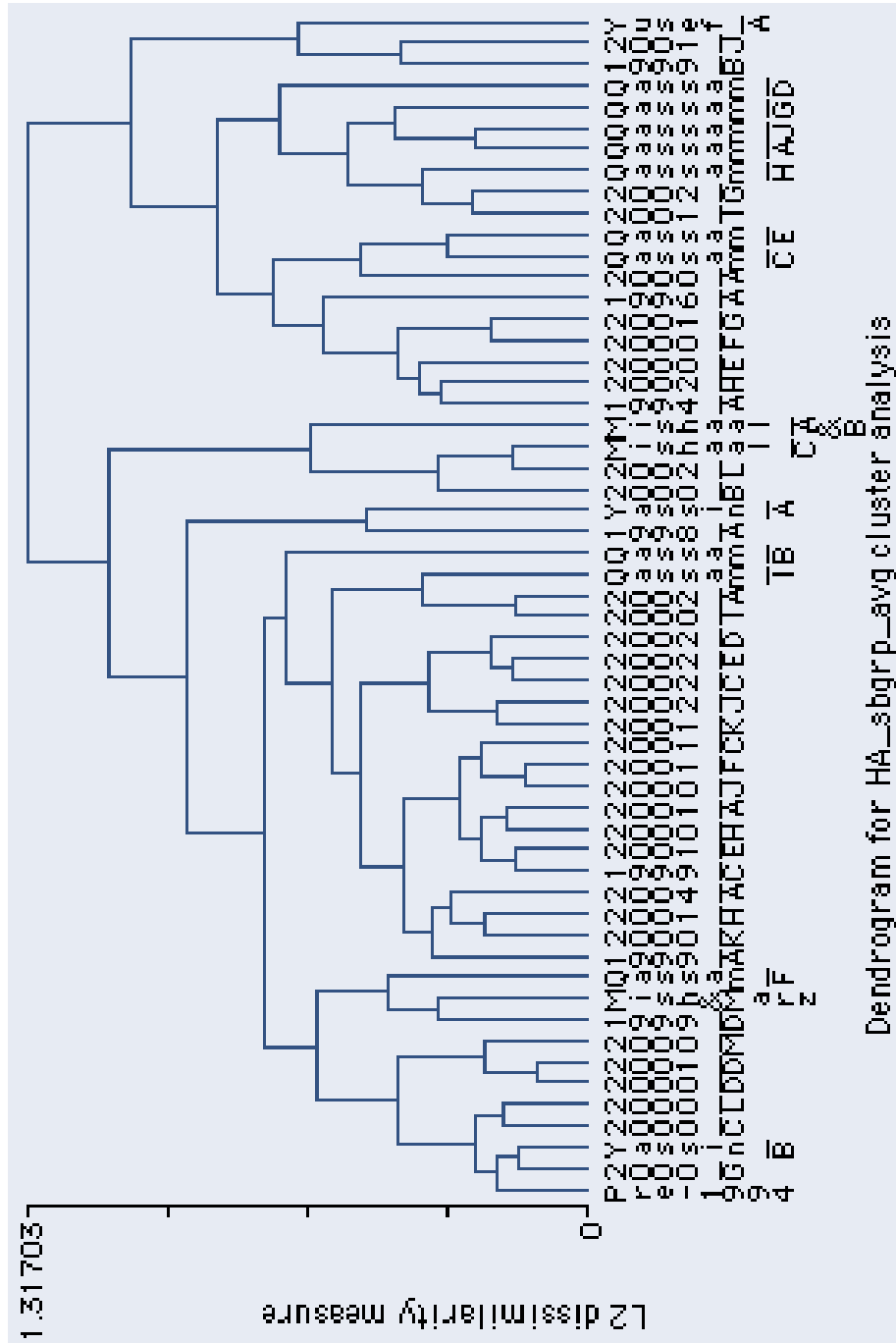
Results of Non-Hierarchical Cluster Analysis of all Hamas Statements by Subgroup
(kmeans-3 clusters specified)

Cluster 1
Leadership (1):
Yassin A

Qassam Brigades (2):
Qassam B, I

Non-attributed (20):
1998_A,
1999_A, 1999_C,
2000_A, 2000_H, 2000_I, 2000_J, 2000_K,
2001_A, 2001_C, 2001_E, 2001_F, 2001_H, 2001_K,
2002_A, 2002_C, 2002_D, 2002_E, 2002_J,
2004_A

Cluster 2
Leadership (1):
Yusef_A

Qassam Brigades (7):
Qassam A, C, D, E, G, H, J

Non-attributed (10):
1994_A,
1996_A,
1999_B,
2000_E, 2000_F,
2001_G, 2001_I, 2001_J,
2002_G, 2002_H

Cluster 3
Leadership (3):
Mishaal A&B, Mishaal C, Mish&Marz, Yassin_B

Qassam Brigades (1):
Qassam F

Non-attributed (10):
Pre–1994,
1999_D,
2000_B, 2000_C, 2000_D, 2000_G, 2000_L, 2000_M,
2001_D, 2001_L