Disciplinary Approaches to Terrorism: A Survey

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Abstract-This working paper reviews the literature on terrorism from the fields of psychology, social science and behavioral science in order to identify issues and directions for future research. The literature review here focuses on but is not limited to studies investigating the causes and characteristics of the phenomenon of terrorism. Unresolved issues within this area of research are outlined and implications for future studies discussed. An extensive bibliography is provided.

Index Terms - Terrorism, Psychology, Behavioral Science, Social Science, Decision Making.

I. INTRODUCTION

It is clear that since the events of 9/11 increased academic attention has been devoted to the subject of terrorism, Silke (2004) documents the explosion in university courses, publications and subscription to publications that deal with the topic. Further, some researchers have characterised post-9/11 as the 'Age of Terror' (Ignatieff, 2004; Talbott & Chander, 2002), this new era of terrorism being characterised by religious fanaticism, extremism, globalization and political and socio-cultural changes (Hoffman, 1999; Merari, 2000). Furthermore, the 'War on Terror' launched in response to the 9/11 attacks has also become a central part of U.S. President George W. Bush's foreign and domestic policy, despite the controversy caused by its nebulous objectives and failure to define terrorism. As will be seen from the literature review here, despite the current 'War on Terror', and the large body of terrorism research and analysis, a commonly accepted definition of 'terrorism' remains lacking and the causes of terrorism remain unclear. Thus, despite the large volume of research analyzing terrorism from psychological, behaviouralist and social science perspectives, findings about the causes of and contributing factors related to terrorism remain isolated by disciplinary boundaries and unifying approaches consolidating and linking these findings are lacking. Further, as Silke (2004) notes, terrorism as a field of research remains stubbornly at the exploratory stage, lacking the conceptual agreement and empirical foundations necessary to make the transition to the levels of providing descriptive and explanatory results.

Thus, little has altered in the field of terrorism research since Schmid & Jongman's 1988 review of over 6000 works published on terrorism between 1968 and 1988. The

authors found that almost none of the studies attempted to identify the patterns and relationships of terrorist operations in an empirical manner, and that studies relied largely on descriptive statistics and journalistic analysis and were characterised by a lack of depth. Martha Crenshaw (2001) also singles out the lack of empirical foundations in terrorism research for critique, noting that primary data about terrorists, based on life histories and interviews, is conspicuously lacking. Silke (2004) also criticises the trend in terrorism research to produce highly speculative findings as well as findings that are too theoretical to be applied in real situations.

While the lack of empirical foundation for terrorism research is a serious issue, the paucity of work aimed at developing an agreed upon conceptual framework seems even more serious. Thus, while the lack of agreed definitions and concepts would be considered by most to be a major impediment to progress in the field, Silke (2004) reports that only eight out of the 490 articles (from primary, peer-reviewed journals) published during the 1990s dealt with conceptual issues. Crelinsten (1987) is even more biting about the conceptual problems within terrorism research, describing numerous research efforts as:

(a) a truncated object of study, which reflects (b) a skewed focus of the researcher, which stems from (c) a narrow policy orientation on prevention and control, which yields (d) narrow conceptual frameworks...and (e) ahistorical, linear, causal models (Crelinsten, 1987: 3-23).

The lack of agreement on defining terrorism and other conceptual issues is serious because, as Borum (2004) points out, this is an impediment to the systematic accumulation of a body of knowledge within the field, or the adoption of a systematic framework for its study.

In seeking to explain this lack of empirical and conceptual grounding within the field, Silke (2004) identifies a number of contributing factors, one being the lack of experienced, long-term researchers in the field. Finding that eighty percent of research articles published in the 1990s were one-off publications in the field by researchers, he laments that:

There has been a chronic shortage of experienced researchers - a huge proportion of the literature is the work of fleeting visitors: individuals who are often poorly aware of what has already been done and naive in their methods and conclusions. (Silke, 2004: 1)

Not only do these 'fleeting visitors' to the field of terrorism research lack expertise and perspective, he argues, they also lack the committment to the field to be willing to tackle problems such as conceptual and definitional issues, or to take on the risks associated with the collection of primary data (such as interviews with terrorists). The problem of too many 'visitors' in the field of terrorism, then, may be linked with the other key problem that Silke identifies, that of methodology. Thus, the significant failure of most researchers to generate new data, and the overreliance on documentary

analysis that Schmid & Jongman (1988) and Silke (2004) identify, both seem symptomatic of the problem of too many research 'visitors' in the field. Gurr (1988) goes so far as to state that, "there is...a disturbing lack of good empirically-grounded research on terrorism." To be fair, however, the very nature of terrorism generates problems for primary source data collection in terms of safety, legality, and access issues. Further, Silke (2004) argues, as an applied form of research, terrorism research doesn't lend itself to the more rigorous scientific approaches, though this hardly excuses the lack of quantitative data in the field, or the common substitution of journalistic reporting for analysis. Furthermore, the existence of quality research within the field that has generated new data, has overcome barriers of safety and access, and has provided rigorous quantitative data and analysis, indicates that the barriers discussed above are not insurmountable.

Ilardi (2004) and others (Silke, 2004; Herman & O'Sullivan, 1989; Jenkins, 2003) also identify a number of biases in terrorism research, such as the prescriptive nature of studies, political bias created by the overwhelming state sponsorship of research, and policy-driven research, as further barriers to progress.

Additionally, while research is strong in the areas of the impact of terrorist violence on society and victims, and historical analysis of terrorist movements, it is weak in terms of studies about terrorists and terrorist attacks (Silke, 2004). 'Weak' in the sense of relatively weak methods being used, few studies generating new data, lack of shared conceptual framework, and in terms of the predictive and explanatory value of the research. The majority of researchers, Silke (2004) argues, rely too much on secondary sources for data to be able to apply robust statistical methods and analysis. Also, in terms of facts and data, the 'how' and 'why' of terrorism remains underexamined, he argues.

What follows here, then, is a review of the social science, behaviouralist and psychological literature that seeks to address the 'how' and 'why' of terrorism in order to identify what has been done in this field so far and whether and how this research can be usefully consolidated under any unifying, multi-disciplinary conceptual approach.

Following this introduction, the remainder of the paper is organized as follows. In Section II, a brief overview of the scope of terrorism studies is given, and key conceptual and definitional issues within terrorism studies outlined. This is followed by a detailed review in Section III of psychological approaches to terrorism, and a review in section IV of social science approaches to the phenomenon. Section V reviews terrorism from a behavioral science perspective while section VI outlines current research in the analysis of terrorist decision making processes. Finally, Section VII concludes with a discussion of the implications found for future research.

II. OVERVIEW

The wider contemporary literature on terrorism spans a range of issues and disciplines, including: basic questions about the definition of terrorism (Collins, 2002; Nacos, 2006; Crenshaw 1995, Laquer, 1999; Benjamin, 2005); analyses of the key operating attributes of terrorist groups and their future methods and targets (Ackerman, 2005; Lesser et al., 1999; Drake, 1998; Hoffman, 2003); studies of the psychological dimensions of terrorism (Watkins, 2002; Borum, 2004; Horgan, 2005); social science (Cronin, 2002; Arena & Arrigo, 2005) and behavioural science (Borum & Gelles, 2005; Busch & Weissman, 2005) approaches; historical (Garrison, 2003), macro-level economic (Sandler & Enders, 2004) and political (Garrison, 2004; Scheffler, 2006) theories of terrorism; as well as computer science and physics studies (Abbass et al., 2005; Ahmed et al., 2005) of terrorism.

A more recent trend in terrorism research is the growing body of analysis devoted to the "New Terrorism" described by Laqueur (1999) and others (Kegley, 2003; Howell, 2003; Hoffman, 1999; Crenshaw, 2000). The "New Terrorism", according to these researchers, is defined by its tie with both the developments of economic globalization and increasingly intense religious conflict and is argued to differ greatly from traditional forms of terrorism in terms of its goals, operational methods, decision making processes, and organizational structures (Hoffman, 1999; Crenshaw, 2000). "New Terrorism" groups are also differentiated by the way their attacks span the international community and their development of internationally networked structures of terrorist activity. Moreover, the "New Terrorism" not only manages to generate more widespread terror and publicity, but is also more indiscriminate in its choice of targets, usually killing a greater number of civilians using more lethal weapons (Garrison, 2004; Burnett & Dave, 2005). Indeed, these authors argue, the growing availability of weapons of mass destruction enables the "New Terrorism" to be far more destructive and lethal than its historical counterpart.

Indeed, the philosophy of "New Terrorism" is no longer to target a specific class of individuals, or specific individuals, as a symbolic tool to affect a wider society, nor to generate a large amount of witnesses instead of a large amount of casualties (Garrison, 2002). Rather, the "New Terrorism" aims to eliminate a greater number of targets, and a high mortality rate is now the central purpose of terrorist attack. In the view of "New Terrorism", greater lethality is now necessary not only to attain greater publicity, but also to generate more fear and impact (Garrison, 2003). There is also now a more generalized goal to kill anyone associated with their enemies (Borum & Gelles, 2005). The Al Qaeda attacks are, for example, consistently asymmetrical (not directed at their immediate enemy) and their attacks are now global and international, extending to all the secular countries and governments with Western interests (Borum & Gelles, 2005). The goal of "New Terrorism" also encourages the use of the threat of deliberate mass destruction, and the growing availability of weapons of mass destruction and CBRN (Chemical, Biological, Radiological, and Nuclear) weapons to nonstate actors facilitates this goal (Blum et al., 2005). Thus, another feature of the "New Terrorism" is the use of unconventional weapons and tactics to increase lethality (Hoffman, 1997).

To address these new challenges and changes, both the traditional definitions of

terrorism and research methods require expansion to incorporate and address the new circumstances. Cronin (2002) concludes that a set of key trends of "New Terrorism" are the increase in religiously motivated attacks, the decrease in the overall number of attacks, a dispersed distribution in the geographical locations of terrorism acts, and an important and growing distinction between where a terrorist organization is spawned and where an attack is launched. Miller (2006) also analyses the changing demographics of international terrorism acts, finding that most of the international terrorists in the 1960s and 1970s were well-educated, well-trained, well-traveled, multilingual, and reasonably sophisticated middle class people; while their counterparts in the 1980s, 1990s, and nowadays, are likely to be a poorly educated, unemployed, and ill-trained male refugees of Middle Eastern origin.

The significance of this body of research on the 'New Terrorism' is that, as researchers such as Laqueur and Hoffman argue, traditional forms and understandings of terrorism and preventive measures are centred around the acquisition of political power. However, this is not a goal of the "New Terrorism" and, they argue, this consequently requires both a reconceptualisation of terrorism and preventative measures on behalf of researchers and government.Without this, there can be no coherent counterterrorism policy and the continued reliance on traditional methods of counter-terrorism (military power and increased physical security) to fight the 'War on Terror' are doomed to failure (Hoffman, 1999; Laqueur, 1999; Kegley, 2003). This paper, then, will take into consideration both traditional and 'new' forms of terrorism in its investigation.

Definitions of Terrorism

The concept of terrorism is generally considered to have originated during the "Reign of Terror" in the French Revolutionary era of the 1790s, and the word "terrorism" deriving from the Latin word "terrere", meaning "to frighten" (Garrison, 2003), is thought to have been born in that same period (Blain, 2005). However, despite the long history of terrorism and the multitude of definitions of terrorism created and used by both government agencies and academic communities (Blain, 2005), there remains no unanimously accepted, clear and comprehensive definition of the term (Silke, 2004). Schmid and Jongman (1988) enumerate 109 different definitions of terrorism in their 1988 paper and more definitions have been proposed since then (Borum, 2004). Kushner (1998) attributes the plethora of definitions to researchers' attempt to include "every possible aspect" of terrorism; by defining it from the terrorist's perspective, from the perspective of the victim of terrorism incidents, and also from the utility and motivation of terrorism activities. However, as Jenkins (2003) points out, the problem with formulating an agreed upon definition lies not with its comprehensiveness and detail, but rather, the framework of the definition, which inevitably is itself part of wider political and ideological conflicts.

Table I (below) lists some representative definitions of terrorism.

Type	Source	Definition	Quoted in

Governmental	British Government in the Prevention of Terrorism Act of 1974	"The use of violence for political ends"	Benjamin, 2005
	1990 US Department of Defence	"unlawful use of force or violence against individuals or property to coerce and intimidate governments to accept political, religious or ideological objectives."	Martin, 2003
	US CIA Counterterrorist Center	"premeditated, politically motivated violence against noncombatant targets by sub-national groups or clandestine agents, for the purpose of publicizing a political or religious cause"	Lopez & Gordon, 2000
	US FBI	"unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives."	Hudson, 1999
	UN (not yet officially accepted)	"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."	Stevens, 2005
Academic	Schmid	"Terrorism is a method of combat in which random or symbolic victims serve as an instrumental target of violence."	Schmid, 1983
	Kushner	"the use of force (or violence) committed by individuals or groups against governments or	Kushner, 1998

		civilian populations to create fear in order to bring about political (or social) change."	
	Cooper	"the intentional generation of massive fear by human beings for the purpose of securing and maintaining control over other human beings."	Cooper, 2002
	Borum	"acts of violence (as opposed to threats or more general coercion) intentionally perpetrated on civilian non-combatants with the goal of furthering some ideological, religious or political objective"	Borum, 2004
	Garrison	"the use of force or violence or the threat of force or violence to change the behaviour of society as a whole through the causation of fear and the targeting of specific parts of society in order to affect the entire society."	Garrison, 2004
	Rodin	"the deliberate, negligent, or reckless use of force against noncombatants, by state or nonstate actors for ideological ends and in the absence of a substantively just legal process."	Rodin, 2004

Table 1. Representative definitions of terrorism

As seen from Table I, most of the formal definitions of terrorism have some common characteristics: a fundamental motive to make political/societal changes; the use of violence or illegal force; attacks on civilian targets by "nonstate"/"Subnational" actors; and the goal of affecting society (Cronin, 2002; Martin, 2003). This finding is reflected in Blee's (2005) listing of three components of terrorism:

(1) acts or threats of violence;
(2) the communication of fear to an audience beyond the immediate victim, and;
(3) political, economic, or religious aims by the perpetrator(s).

Thus, Blee argues that it is the political or ideological goal of enacting change that differentiates terrorism from common crime, while Martin (2003) argues that it is the targeting of civilians that makes terrorism unethical by certain military and political standards. Despite the lack of an agreed upon definition of terrorism, then, common characteristics are identifiable. Although, as Laqueur (1999) and Nacos (2006) point out, different definitions become more or less useful when it comes to discussing

particular forms of terrorism, such as state-based or narco-terrorism.

Although not intended to be used to identify different types of terrorism, Rodin's (2004) classification of definitions of terrorism could be useful for this purpose. Rodin classifies the different definitions of terrorism into four main groups according to their focus:

1. "Tactical and operational definitions" according to the weapons deployed,
2. "Teleological definitions" focusing on the goals of violence,
3. "Agent-focused definitions" focusing on the nature of the actor, for instance, "sub-national groups" or "clandestine agents", and
4. "Object-focused definitions" emphasizing the target. Despite the range of definitions being reducable to four categories, each stressing a different focus, there is strong disagreement between researchers concerning which factors should be emphasized in a definition of terrorism.

Thus, Benjamin (2005) argues that definitions of terrorism too often neglect its motives and that definitions provided by the government are not helpful to scholars. For example, as Scheffler (2006) also points out, the 1999 US government definition neglects state-based terrorism and fails to consider that there is no universally accepted, clear and unbiased standard of how to distinguish "combatants" from "noncombatants". Martin (2003) further argues that distinctions between state-based and non-state terrorism cannot be neglected in definitions of terrorism because of their essential differences: non-state terrorist violence is usually designed to attract maximum publicity, while state terror is often highly secretive.

Martin also argues for the inclusion in definitions of terrorism of all the participants in a terrorist environment. That is to say, both the people who initiate and who are affected by terrorist attacks need to be taken into account because they will have very different understandings of terrorist activities, especially in terms of whether the target group can be described as "innocent", "neutral", "civilian" or "noncombatant". In contrast, Drake (1998) holds the view that terrorism should be defined by the nature of the act rather than by the nature of the involved victim. His view is supported by Garrison (2004) who argues that "terrorism can be understood and defined through the writings of terrorists themselves". Garrison proposes a definition of terrorism that considers both the intention and circumstances of the terrorist act and that focuses on the nature of the act itself, rather than stressing the nature of the victims. The author insists that the key in defining terrorism is whether the violence is used "(1) against a specific part of society so as to (2) cause fear in the greater society in order to (3) change the entire society". He is concerned that the definition not be associated with the target or the violence level of the attack because such attacks are not victim-based but goal-based.

It is clear, then, that the research community is far from reaching a consensus on the definition issue. However, this may be due more to conflicting research paradigms, the different forms of terrorism and accompanying root causes, and inconstancy among terrorists and their motives, rather than any fundamental limitation of understanding about the phenomenon itself (Stevens, 2005; Derian, 2005). Despite this, Scheffler

(2006) argues that terrorism is morally distinctive and a definition should, therefore, incorporate and clearly illustrate the connection between terrorism and terror caused. While this principle is reflected in most definitions, the main disagreement between researchers centres around what perspective this connection should be viewed from, since, according to the common cliche, a terrorist may be alternately viewed as a freedom fighter or martyr, depending on one's viewpoint (Ash, 2003; Nacos, 2006). Terrorism can, then, despite the critique of moral relativism (Laqueur, 1987), be viewed as a matter of subjective perception (Collins, 2002; Derian, 2005; Gearty, 1991) and definitions of terrorism, likewise, as unavoidably based on social, political and contextual viewpoints (Martin, 2003; Jenkins, 2003). This is not to trivialise terrorism as a problem, rather, as Jenkins (2003) argues, a consideration of how terrorism is socially constituted is important for further understanding of the phenomenon.

Perhaps, then, as Benjamin (2005) proposes, it may useful to keep a range of different definitions of terrorism in order to broaden our understanding of terrorism and its context-specific nature. Moreover, diverse, field-specific definitions may be essential for advancing disciplinary studies on terrorism (Schmid, 2004). However, if the study of terrorism is to move past the definitional problem in a systematic way, one solution may be that proposed by Horgan (2005), who suggests that terrorism be analysed as a process rather than a category of people. Thus, Horgan argues for a focus on 'how' individuals become terrorists (rather than 'why'), and identifying commonalities in process across cases. Nevertheless, Horgan's approach still requires judgements about who is a terrorist, in order to study that group. And, as Jenkins (2003) points out, these decisions are inevitably made based on information and judgements about certain acts in terms of who did it and why. Information and judgements which are, by their very nature, thoroughly socially constituted in nature.

The implication for future studies of terrorism, then, is that careful consideration needs to be given to any definition of terrorism used in terms of making explicit the assumptions that underlie that definition. Further, in selecting cases for analysis, researchers should be fully aware of and able to explicate, the process by which a group or person has been constructed as a terrorist. Jenkins (2003) offers a number of excellent examples of different constructions of terrorism, such as the early refusal of the FBI and, consequently, the media, to treat anti-abortion bombings, assassinations and arson as terrorism. Another area for research currently unexplored, then, is a ethnomenological examination of how individuals use motive and category to identify and account for terrorism.

As a complex phenomenon, then, terrorism resists the construction of a single explanatory theory (or even definition) and a number of multidisciplinary approaches to the origins of terrorism have been taken. Thus, John (1991) argues that terrorism results from a combination of psychological, cultural, political and social factors, while Miller (2006) also finds that the motivations of terrorism are mostly psychological, social, and political forces.

Studies like these, then, suggest that research into terrorism can be conducted across, rather than just within, the individual fields of psychology, social science (including political science and cultural studies), and behavioral science, and that findings can be synthesized. Furthermore, studies of the origins of terrorism could also gain from the addition of perspectives from other disciplines, such as conflict studies (Kowalski, 2005).

The diverse range of definitions of terrorism arising out of different forms of terrorist behavior, and differing ideological and socio-cultural foundations, has resulted in different typologies of terrorism being developed. These typologies of terrorism are a good basis from which to construct a synthesizing, multi-level framework for understanding the origins of terrorism. Table II provides a summary of existing terrorism typologies and it can be seen that most of the available terrorism typologies reflect a particular disciplinary paradigm (ie. political, social or psychological).

Source	Typology	Quoted in
Martin	State terrorism Dissident terrorism Religious terrorism Criminal terrorism International terrorism	Martin, 2003
Benjamin	National terrorism (about national boundaries) Revolutionary terrorism (to change the philosophical or political climate) Reactionary terrorism (to prevent change in government or society or both) Religious terrorism (uses violence for religious means)	Benjamin, 2005
Blum	Social-Revolutionary terrorism National-Separatist terrorism Radical Religious Fundamentalist terrorism New Relious terrorism Right-wing terrorism Single-Issue terrorism (such as anti-abortion or environmental terrorism)	Blum et al., 2005
Stevens	Ethnic terrorism Ideological terrorism State based terrorism	Stevens, 2005
Post	Social-revolutionary terrorism vs. Nationalist-separatist terrorism Islamisst fundamentalist terrorism	Post, 2005
Franks	State level terrorism Non-state actor level terrorism Structural level terrorism Individual level terrorism	Franks, 2006

Table II. Summary of terrorism typologies

Post's 2005 typology has a temporal aspect as he represents two stages of terrorism: (1) An “Early years” stage, dominated by both social-revolutionary terrorism and nationalist separatist terrorism, and (2) a contemporary stage, in which nationalist separatist terrorism and Islamic fundamentalist terrorism dominate. In contrast, Stevens (2005) divides terrorism into three types: ethnic terrorism, ideological terrorism and state based terrorism. Stevens also makes a distinction between terrorism and other forms of criminal violence, holding the view that terrorism can only originate from economic, political, and cultural grievances caused by either oppression or violent resistance against economic, political, and social systems based on political goals or religious principles. He also differentiates between state terrorism and state-sponsored terrorism, the former consisting of governmental use of terror against its own citizens, the latter involving governmental support of terrorism.

In addition, Franks (2006) offers a more complex typology proposing a multi-level framework of four levels: (1) The state level, for example, the Palestinian-Israeli conflict. (2) The non-state actor level, in which terrorists are independent of the state, and the origins are from political, social and economic grievances. This can be further divided into different subclasses, including (a) “revolutionary/reactionary” terrorism, seeking to change the existing social, political system, (b) grievance terrorism, originating from the unsatisfied basic human needs of social groups, and (c) deprivation terrorism, caused by economic, political and social discrepancy. (3) The structural level, which emphasizes the potential structural influences of society, history, culture and the socio-economic social groups that terrorists belong to. This is further categorized into: (a) cultural terrorism, (b) systemic terrorism (which pays more attention to the relationship and interaction between different social parts), (c) situational terrorism (caused by a conflict between the actor’s goals and the opposing, disappointed reality), and (d) socio-economic terrorism.
(4) The Individual level, which ascribes terrorism behaviors to the psychological and behavioral conditions of a human individual. This is further classified into: (a) ideological terrorism, (b) identity terrorism, (c) single-issue terrorism, (d) emotional terrorism and cognitive terrorism, and (f) group terrorism.

Crenshaw (2003) also argues for establishing a theoretical order for different types and levels of causes in explaing causes of terrorism and starts from the assumption that terrorism is neither solely a reaction to environment nor entirely instrumental. Her own analysis considers causes of terrorism from the levels of 1) situational variables, 2) strategies of terrorism and 3) individual participation and she avoids conceptual confusion by asking different research questions at each level.

The above review suggests that, although the current terrorism typologies share similarities, they differ in terms of their operational criteria for categorizing terrorism. Any future study of terrorism, then, needs to provide a coherent rationale in terms of the typology of terrorism it utilizes. Also, since terrorism may be motivated by social and individual elements from different levels, it may be necessary to build typologies of terrorism to gain further insights.

Having outlined some of the key issues and approaches in terrorism research, a review follows of methods and findings from the following studies of the origins of terrorism: (1) Psychological Studies, (2) Social Science Studies, which includes political, socio-cultural and religious analyses, and (3) Behavioralist Studies. While the research in these disciplines are not necessarily independent and isolated, many are, in fact, quite interdependent, the purpose of our taxonomy is to provide a rational and comprehensible classification and summarization of the existing research literature that permits logical presentation and analysis.

III. PSYCHOLOGICAL STUDIES OF TERRORISM

The study of terrorism is a relatively new subject within psychology. Among the academic psychology community, it is only in 1982 that terrorism was formally recognized as a subject worthy of study and was then studied using either theoretical or empirical methods (Borum, 2004). Since then, psychological studies of terrorism have mainly focused on topics concerning either the individual or small group psychology of terrorism, or the social psychology of terrorism, incorporating socio-cultural theory. A range of theories, including learning theory, psychodynamic theory, and existential/ hermeneutic theory have all been used in researching terrorists and their victims. In reviewing these studies, approaches have been divided below into the categories of individual and social psychology.

A. Individual Psychology Approaches

First generation psychological research on terrorism is defined as that arising from the late 1960s to the mid-1980s, which mostly understood and explained terrorism with psychoanalytic and personality theories (Borum, 2004). Terrorist behavior was viewed as a product of psychological forces, and terrorists were typically described using a psychoanalytic model. Thus, terrorists were found to be abnormal "in more subtle ways" (Crenshaw, 2000), and their terrorist behaviors were identified as driven by unconscious motives and impulsions resulting from childhood events, such as early abuse and maltreatment. Importantly, many psychoanalytic studies of terrorism from this period relied heavily on research about violent behavior, thus their definitions of "terrorism" are almost equivalent to that of "violence" (Turco, 1987). It was under the direction of this theory that the terrorist profiling method was developed whereby a demographic and psychological template of the potential terrorist was built (Winerman, 2004). However, Horgan (2005) among others, discredits psychological profiling of terrorists as inexorably context-based and, consequently, lacking both generalisability and predictive usefulness. First generation research was also distinguished by its attempt to identify potential terrorists according to a fixed set of physical or psychological attributes and pathological personalities (Borum, 2004). First generation researchers, then, tended to focus, methodologically, on case studies to capture the developmental history of individuals in order to investigate participation in

familial relationships, involvement in criminal and antisocial activities, educational experiences, and self-esteem (Borum, 2004). Horgan (2005) outlines three central hypotheses of the terrorist as 'psychologically special' arising out of the attempt to identify 'terrorist' personalities. These are: 1) the frustration-aggression hypothesis (terrorism as a form of agression arising out of frustrated goals), 2) narcissism (terrorism as a product of ego-based personality disorder) and 3) psychodynamic influences (latent desires arising out of childhood conflicts).

However, despite the early prevalence of theories about psychopathy and terrorism, most researchers within the field of psychology have now reached the consensus that most terrorists are not psychologically abnormal and that mental illness is not a critical factor in explaining terrorist behavior (Horgan, 2005; Silke, 1998, 2004). In fact, most terrorists have been found to be psychologically 'normal' (Hoffman, 1999; Reid, 2003; Post, 1990, 2005) and there appears to be no 'terrorist personality', nor any accurate psychological profile that can be built for terrorists (Borum, 2004; Nacos, 2006). It seems that, as Cooper (1978) pointed out long ago, terrorism, like any other serious undertaking, requires dedication, perseverance, and a certain selflessness; qualities lacking in the psychopath. As Crenshaw (1992) notes, after finding that serious psychopathology or mental illnesses among terrorists was relatively rare, “the idea of terrorism as the product of mental disorder or psychopathy has been discredited ” and is no longer considered a major factor in understanding or predicting terrorist behavior (McCauley, 2002; Horgan, 2005).

With the wane of psychoanalytic and psychopathy explanations for terrorism, many researchers turned their attention to the individual’s life experience, focusing on themes such as injustice, abuse, and humiliation histories. For example, Alexander & Klein (2005) argue that there are a set of regular traits for potential terrorists, including poor self esteem, a sense of hopelessness, shame, a need for revenge, and a sense of vulnerability. However, Borum (2004) points out that although histories of childhood abuse and experiences of perceived injustice and humiliation are prominent in terrorist biographies, this doesn’t really help to explain terrorism in terms of providing a causal explanation. Rather, he argues, these experiences may be only seen as an indicator of vulnerability, or a possible source of motivation for using violence. Borum also argues that the analyses of terrorist life histories and 'common vulnerabilities' are usually not as accurate and not as insightful as expected due to a lack of empirical support in their research methodologies. Additionally, as Haroun (2003) points out, until the terrorist is strictly defined, it is not possible to have clear and accurate data on the 'terrorist psychology' as opposed to 'pseudo-terrorists' such as common criminals and psychopaths. Thus, identifying the terrorist and the essential characteristics of terrorism remain important conditions and tasks in psychological studies on terrorism.

Additionally, the finding that most people found to fit the general 'terrorist personality' or sharing 'common vulnerability' never engage in terrorism (Merari & Friedland, 1985) has undermined the case for personality-based profiling of terrorists. In fact, in terms of psychological attributes, there is also a degree of consensus (McCormick, 2003; Borum, 2004; Horgan, 2005; Silke, 2004) that there are no special set of

psychological attributes that characterize terrorists and their behaviors, and personality traits alone are not very good predictors of terrorism behavior. Crenshaw (2000) also argues that individual personality factors are not as important in understanding terrorism as shared ideological commitment and group solidarity. Moreover, the simple "terrorist personality" theory also contradicts the operational practice of typical terrorist groups. It is not possible for well-developed terrorist groups, such as Al Qaeda, to recruit a member from those who will easily attract suspicion. Therefore, Crenshaw argues, the profiling method may not work for identifying terrorists. The most effective method for explaining terrorism, she argues, is to combine both personal and situational factors rather than by constructing a simple, global, and general psychological characteristic set for all potential terrorists.

B) Social Psychological Approaches

As discussed above, most contemporary psychological studies of terrorism no longer consider mental illness or personality to be key causal factors or attributes of terrorism. In addition, the focus of contemporary psychological approaches has moved towards the social context of individual or small group psychological attributes. This approach is grounded in the assumption that: "the psychology of terrorism cannot be considered apart from political, historical, familial, group dynamic, organic, and even purely accidental, coincidental factors" (Fried, 1982). Likewise, Gergen (2001) and Stevens (2002) suggest that postmodernity and globalisation has meant that complex relationships exist among most individuals in their sociocultural surroundings. Individual psychological approaches, they argue, are limited in that they focus mainly on intra-personal and interpersonal causal factors (Stevens, 2002). Thus, a more comprehensive psychological understanding of terrorism, taking into consideration the psychological links between the individual and economics, history, law, politics, religion, and culture, is called for.

Moghaddam (2005), in his exploration of the psychological roots of terrorism, points out that psychological studies of terrorism begin with the assumption that subjectively interpreted values serve as the most important impetus for terrorist behaviors, and that perceived deprivation and perceptions of fairness are often important factors in shaping terrorists. In the literature on terrorism, greivances are often considered the most important "precipitant" cause of terrorism (Ross, 1993). Such grievances are argued to be generated in economic,ethnic, racial, legal, political, religious, and/or social conditions, and then create despair over racism, poverty and political oppression that can inspire terrorist behavior (Wessells, 2002; Stevens, 2005).

Borum (2004), likewise, identifies perceptions of fairness as an issue in his proposal of three main motivations for terrorist behavior (based on his review of the literature): injustice, identity, and belonging. In his view, however, injustice is one's perceptions of injustice, which can also be viewed as grievance. Horgan (2005) also stresses that grievances may be 'virtual' rather than real. Borum's second motivation, identity, is

defined as a developed, stable sense of self and resolved security in one's basic values, attitudes, and beliefs; while belongings, the third motivation, is defined as an individual's sense of belonging, connectedness and affiliation to a specific group. The belonging motivation in Borum's theory is particularly significant because the author uses it to suggest that social groups form network-like structures that may reveal the individual psychological pathways of joining terrorist groups. He argues that these pathways are sequential, incorporating the stages of: (1) social and economic deprivation (context); (2) inequality and resentment (comparison); (3) blame/attribution (attribution); and (4) dehumanizing/demonizing the enemy (reaction) (Borum, 2003).

In this area, Crenshaw (1985) suggests that there are at least four categories of motivation among terrorists in terms of psychological attributes: (1) the opportunity for action, (2) the need to belong, (3) the desire for social status, and (4) the acquisition of material reward. In this view, both individual psychology and social situation are interdependent motivating forces. Hudson (1999) similarly views the interaction of individual personality with social situation as central to the generation of terrorist behavior, and argues that this interaction is as important as cultural and societal influences.

Taking a symbolic interactionist approach, Arena and Arrigo (2005) also argue that studies of terrorism should take into account social interaction and relationships. The authors use the symbolic interactionist perspective that using and interpreting symbols is an activity that not only produces communication but creates and maintains individuals' sense of identity as well as what they experience as 'the reality of a particular social situation'. The authors use this approach to suggest that social situations and social symbols influence the individual mind and are able to form a certain type of social psyche.

These studies, then, all suggest that studies of terrorism needs to take into account the wider social context of decision making in terms of relationships, social groups, and socio-cultural surroundings. However, caution also needs to be applied in using the findings generated by social psychology since, despite the substantial literature and findings generated, Silke (2004) among others (Horgan, 2005; Nacos, 2006) has pointed to serious methodological problems in this field. Much of the research, Silke argues, lacks validating experimental data while research in the area of motivation is presently more theoretical and speculative than applied and empirical. Moreover, the approach has been criticised for its limitations in terms of only focusing on non-state actors and the individual or small groups. Likewise, the literature on psychological motivation has been criticised for focusing on decision processes involved in adopting terrorist means and neglecting subsequent psychological development, and how the psychology of the individual influences that of the group (Horgan, 2005). Thus, the approach has failed to address the issues of the psychological basis of group factionalism, the psychology of escalation and de-escalation, and the evolution of the terrorist mind-set (Miller, 2006; McCormick, 2003). Furthermore, Horgan (2005), Silke (2004) and Crenshaw (1992) identify serious conceptual problems with much

psychological research, in terms of its integration of levels of analysis and treatment of terrorism as a homogenous activity. Thus, Horgan (2005) points out that by focusing on poorly designed questions such as 'what makes a terrorist', several questions, which may have little relationship to one another, may become conflated. For example, the questions of why someone wants to become involved with a terrorist group, how they become involved, and how and why they assimilate the shared values and norms of the group are separate issues and yet may become mixed up under the 'what makes a terrorist' question.

Horgan (2005) proposes overcoming this problem and the definition problem through using a process model of terrorism to identify what factors influence individuals at the stages of becoming, being and disengaging from terrorism. The author identifies a number of common processes from the analysis of different cases: 1) gradual socialization into terrorism, with gradual increases in commitment, 2) Group factors are important in the support of initial engagement, 3) Certain roles within the organisation, as well as membership, offer an increased sense of empowerment and status, and 4) a number of positive features rewarding increased engagement (such as increased skill and enhanced feelings of control).

IV. SOCIAL SCIENCE APPROACHES TO TERRORISM

The social science approach to the phenomenon of terrorism, like some of the social psychological approaches outlined above, has analysed terrorism within the context of history, power, inequality, globalization and market forces (Macias, 2002). This approach has been useful in identifying a number of contributing factors, including: “rapid modernization, extremist ideologies, inequality of power, repression by foreign occupation or by colonial powers, and the experience of discrimination against ethnic or religious origin (Griset and Mahan, 2003). These authors along with others (Crenshaw, 2003; Cronin, 2002) conclude that the “best way to understand terrorism is to examine the social, economic, political, and religious conditions and philosophies existing at a particular time and place” (Griset and Mahan, 2003).

A. Social Bases for Terrorism

The social bases of terrorism identified by researchers range from political and revolutionary needs to religious conflict and cultural clash. Munthe, in a 2005 case study of London bombings, identified three social bases: (1) Political (political suffering and injustice), (2) Islamic religion, and (3) Cultural (such as Jihad terrorism). He also argues that radicalization, Islamism and Jihadism in the Middle East nowadays are a response to three kinds of oppression and occupation: (1) Occupation of the domestic political sphere; (2) Occupation of territory; (3) Occupation of the global sphere of dominance [82]. Similarly, Drakos & Gofas (2006) regard the direct factors causing terrorism as political, social and economic conditions that cause grievances. However, with Horgan (2005) and Bjorgo (1995), it is argued here that while these

conditions may provide a set of preconditions for terrorism they are not, alone, sufficient to act as causal factors. If that were the case, it is arguable, everyone affected by these conditions would become a terrorist while few, in fact, do so.

A much cited social basis for terrorism is changing world sociopolitical patterns, or the globalization of political democracy, economics and culture (Kegley, 2003). Aside from domestic revolutionary causes of political terrorism, the war and fight against colonialism may be an important issue in the international context of terrorism. The broad political aim of most political terrorism is avowedly against: (1) empires, (2) colonial powers, and (3) the international political and economic system led by the U.S. and marked by globalization (Cronin, 2002). For example, worldwide Anti-American terrorism is incurred by both a desire to change U.S. policy in the Middle East and Persian Gulf regions, and a growing antipathy in the developing world towards the forces of globalization (Cronin, 2002). Thus, anti-globalization now seems to play a more important role in the social bases of terrorism activities (Kellner, 2002; Cronin, 2002; Juergensmeyer, 2001). Despite this, however, Weinburg & Eubank's (2004) analysis failed to find a positive link between globalization and terrorism.

Cronin (2002) argues that globalization is also usually accompanied by "Westernization, secularization, democratization, consumerism, and the growth of market capitalism", and inevitably causes economic and social injustice in the developing world. He argues that during the globalization process, an enhanced ethnic identity and individual importance emerges and that this conflicts with the accompanying modernization, contributing to religious fanaticism. If justice and ethnic identity are unattainable for the majority, Cronin argues, vengeful violence is likely. In this way, globalization can be seen to have provided a motivation for terrorism while at the same time unintentionally facilitating its growth and potency (Maria, 2003). It is unclear, however, how Cronin's argument accounts for the growth of extreme right wing terrorism in highly developed countries such as the US.

Globalization has, however, undeniably enhanced the efficiency of many terrorist-related activities (such as communication); has permitted global media coverage of terrorism; has broadened the means for gathering financial resources to fund operations; and, most importantly, globalization has largely enhanced terrorists' choice of targets (Byman, 2005; Hoffman, 1999). Hence, due to globalization, terrorists increasingly have access to weapons of mass destruction , CBNR weapons, good communication and information technology and, correspondingly, access to more targets, more territories, and more means of recruitment (Morgan, 2004; Byman, 2005, Cronin, 2002).

While social scientists have also identified economic and educational poverty as a social basis for terrorism, Krueger & Maleckova (2003) find only a weak and indirect link between poverty, education and terrorism. Likewise, Laqueur (2003) points out that hardly any terrorism occurs among countries designated by the UN as 'least developed' while Berrebi (2003) found that higher standards of living and education were associated with participation in Hamas or Palestinian Islamic Jihad. Thus,

Krueger & Maleckova (2003) argue that political conditions and long-term feelings of indignity and frustration, rather than economic conditions, are more likely to be preconditions for terrorism. An overview of research arguing the political bases for terrorism follows below.

B. Political and Ideological Bases for Terrorism

Garrison (2004) argues that terrorism originates from the humiliation and desperation generated by occupation, and that it is a way to resist oppression in order to regain self-respect, as well as being a method for commanding the attention of the rest of the world. Krueger & Maleckova (2003) also draw a direct link between oppression and terrorism, observing that “terrorists are more likely to spring from countries that lack civil rights”. Morgan (2004) also alludes to oppression in listing the following as conditions contributing to the origins of the "New Terrorism": (1) Gross inequalities in economic resources and standards of living between different parts of the world, (2) Governmental collapse in “failed states”, (3) The intrusion of Western values and institutions into the Islamic world through the process of free-market globalization. Laqueur (1987), however, dismisses the link between oppression and terrorism, citing as evidence the fact that terrorism has, historically, occurred less frequently under more repressive governments. In addition, like poverty, oppression is a poor predictor for terrorist behaviour, since there are many poor and oppressed people in the world and relatively few terrorists. Furthermore, oppression as a causal factor fails to account for activities such as state terrorism and anti-abortion terrorism.

Other researchers have focused on the role of ideology in terrorism. Cronin (2002) argues that terrorism is always political in nature since the goal of terrorists is to “engage in attacks on symbolic targets to attract the attention of the larger part of society, to cause fear and thus initiate a popular response that would ultimately overturn the prevailing political order”. Likewise, Fleming (1980) views the goal of terrorism as ideological, explaining, “for some terrorists, propaganda by the deed came to be accepted as a suitable means of ‘educating’ the masses (especially when many were not able to or had no time or desire to read), to stimulate them to action, and draw them into the movement”. From this viewpoint, then, terrorism is regarded as “a doctrine about the efficacy of unexpected and life-threatening violence for political change and a strategy of political action which embodies that doctrine.” (Gurr, 1988). Accordingly, a number of researchers (mostly political scientists) have argued the case for viewing terrorism as a rational political choice and instrumental in its goals (see Sick, 1990; Schulz, 1990; Sprinzak, 2000; Rubenstein, 1987). Certainly, in terms of understanding and formulating effective responses to terrorism, viewing terrorism as an activity with a distincitive rationale and set of goals is more useful than viewing it as a 'response' to environment or a form of mental illness.

Martin (2003), also drawing a link between terrorism and politics, points out that the underlying principles of terrorism can be found in longstanding ideologies and

philosophies, such as anarchism, Marxism and fascism. At the same time, political ideology provides terrorists with a set of beliefs that they can use to justify and mandate behaviors. This type of reasoning invokes the theory of the “Just War”. 'Just War' theory “takes for granted that it is philosophically and theologically, hence morally, right in certain circumstances to go to war and kill people” (Maria, 2003). Busch & Weissman (2005) argue that this ideology can blur individual identity and create a high degree of unity and cohesion within terrorist groups, even if they are geographically isolated. Finally, Borum (2004) proposes that a terrorism-supporting ideology must meet three general conditions: (1) the ideology must contain a set of beliefs that guide and justify a series of behavioral mandates; (2) All the beliefs must be inviolable and can not be questioned; (3) the behaviors must serve for some meaningful cause or objective. Notably, then, both political and religious-based ideology may meet these three general conditions.

Like ideologically motivated political terrorism, then, the most fundamental reason for religious terrorism may be the intentional use of mandates by terrorist groups to solidify the beliefs of their members and supporters, to demonize the enemy, and to justify their terrorist behavior and objectives (Martin, 2003). In doing this, religious terrorists often propagate 'extremist' beliefs, including “intolerance, moral absolutes (only good and evil), broad conclusions (simply categorize all members of their opponent group as having certain broadly negative traits), and a new language that supports a particular belief system (demonize the enemy)" (Martin, 2003). Therefore, religious terrorists, not only Islamic terrorists but also right-wing Christian extremists, share the following traits: “the perception of their objective as a defense of basic identity and dignity; losing the struggle would be unthinkable; and the struggle is in deadlock and cannot be won in real time or in real terms” (Hoffman, 1999). Religious terrorism differentiates itself from political terrorism by its selection of a broader range of human targets - anyone who is not a member of the religion - (Borum & Gelles, 2005) and through the use of violence less constrained by secular values or laws (Hoffman, 1999). It is worth noting, however, that the causes of religious terrorism appear to integrate the previously mentioned causal factors of perceived political oppression and grievances (Munthe, 2005).

C. Socio-Cultural Approaches to Terrorism

As indicated by Borum (2004), contributing cultural factors are an important area for terrorism studies, but remain relatively unexplored. In his opinion, “outside social and environmental influences and situations can overcome the barriers inhibiting people from killing”, and culture is one of these important influences. In the context of understanding the potential impact of culture on terrorist ideologies, Borum suggests that culture be defined as, “the immaterial or social dimensions of culture, that is, the unique collection of social roles, institutions, values, ideas, and symbols operative in every group, which radically conditions the way in which members see the world and respond to its challenges”. Borum also suggests that cultural factors and social

dimensions are interdependent, and that cultural influences encompass both individual and social situational factors, offering a more comprehensive understanding of terrorist behavior. Moreover, he points out, culture is also a critical factor in the development of ideology, although how culture affects the development of terrorist ideologies has not yet been well studied.

Mitchell (2005), using Heidegger's 'enframing world' theory, argues that the current clash among different cultures is partly due to globalization. Globalization's elimination of geographical distance and cultural difference, and its collapsing of the distinction between "national" and "international" has resulted in "Americanism", the author argues. That is, western culture in the form of American culture now pervades almost every corner of the world, while other cultures face decline. This loss of national difference, particularly cultural difference, Mitchell argues, has partly inspired the emergence of terrorism. Paradoxically, at the same time, with the blurring of national difference, almost every country is now a possible target of terrorist attack, and this is "the very terror of terrorism". Furthermore, a cultural lifestyle can itself now be identified as
a target, for example, the Western culture and lifestyle vilified by Al Qaeda (Borum & Gelles, 2005). Once again, however, globalization must be viewed as more of a precondition than a cause of terrorism, since while many are subjected to the forces of globalization, only few become terrorists. Also, while Munthe (2005) proposes that cultural measures be used to inhibit terrorism through multiculturalization, that is, encouraging dialogues between different civilizations to promote mutual understanding, this hardly constitutes an effective response to terrorism by itself.

A review of the social science literature on terrorism, then, reveals a number of implications for further study of terrorism. First, some of the findings of research into the political, social and cultural bases of terrorism is contradictory. That is to say, political science views of terrorism as a form of instrumental rational choice contradict psychological and social explanations of terrorism that view terrorism as a 'product' rather than a choice. Second, Silke (2004) points out that much social science research lacks methodological rigour and empirical grounding due to its overdependence on secondary data and interviews. The problem with information generated from interviews and secondary data, particularly media reports, Jenkins (2003) points out, is that a) individual terrorists often have a limited understanding outside of their own 'cell' and may even be deceived by their own organizations for various strategic reasons; b) groups may claim involvement under the name of another group for various strategic purposes; c) investigative and intelligence organisations (and terrorists) are unavoidably politically biased in their reports, are forced to rely on some less reliable sources of information (such as informants), are constrained by the clandestine nature of their work, and may also strategically employ misinformation. The pressures of accounting for counter-terrorism intelligence 'failure' may also produce less than objective reports and findings. Thus, as Jenkins argues:

...while the actual participants can often be identified, the underlying context is far harder to discern. It is discovered by a process of investigation undertaken by police

and intelligence agencies, which are often constrained by diplomatic or bureaucratic factors. Ultimately, the account of an incident presented in the media represents not an objective evaluation of truth, but rather a negotiated consensus. (Jenkins, 2003: 137)

V. BEHAVIORALIST APPROACHES

Behavioral science is the experimental, theoretical, and applied analysis of behavior. The subject matter of this approach is to observe human conduct and behavior, and the frequency of behavior. It differs from psychology in that psychology studies the mental or biological determinants of behaviour while behavioral science studies observable determinants of behaviour. Behavioural research has sought to better understand the psychology of terrorist groups and the operational relationship between their leaders and followers, so that effective strategies can be designed to counteract their operations. Stevens (2005) emphasizes behavioral science's potential contribution to profiling terrorists, fostering tolerance, consulting with the media to alter the images of terrorism, and conflict resolution.

Early behaviouralist research proposed a "developmental", or "life course" approach (Sampson & Laub, 1993; Elder & Glen, 1985), attempting to discover the links between child- and adulthood behavioral patterns, and treating these patterns as independent of variables such as class background, ethnicity, and IQ. In these studies, individual long term behavioral patterns were analysed and developmental histories constructed that investigated the individual's participation and involvement in criminal and antisocial activities such as terrorism (Sampson & Laub, 1993). Later behaviouralist researchers emphasized the construction of 'profiles' to predict individual behavioral patterns using a single set of traditional sociological and psychological variables, however, there remains no identification of reliable psychological attributes of terrorists (Borum, 2004; McCormick, 2003). Despite this, the identification of what Ross (1999) calls 'facilitating traits' (eg., depression, alienation, antisocial behaviour) in decisions to join a terrorist organisation remains an ongoing area of investigation in terrorism studies.

Seeking a more effective method for explaining behavior than individual personality traits, some behaviouralists turned to a combination of personality and situational factors. Borum (2004) defines these situational factors as "the support or rejection of friends and family to the extremist ideology or justifications for violence". From a behavioralist perspective, then, ideology plays an important role in regulating and determining individual behavior and Merari (2000) defines ideology as "a common and broadly agreed upon set of rules to which an individual subscribes to help to direct his behavior." However, ideology alone is not enough to convince a person to engage in terrorism, Merari argues. Rather, ideology guides and controls behavior by "providing a set of behavioral contingencies that link immediate behavior and actions to positive outcomes and rewards down the road".

But how does ideology control individual behaviour? Taylor and Horgan (2001) in their study of Islamic fundamentalism have provided perhaps the clearest behavioral explanation: “the way ideology controls behavior is by providing a set of contingencies that link immediate behavior (e.g., violence) to distant outcomes (e.g., a new state, afterlife reward)". This reveals a key assumption in behavioralist approaches to terrorism, that terrorist behavior is driven by its predicted consequences.

Making this assumption explicit, Crenshaw (1990) develops a “strategic choice theory”, representing the perpetrator of the act of violence as a rational actor, who has calculated the influences and made a rational choice among different alternatives as part of strategic reasoning.” However, competing with this rationalist point of view of violence as a means to an end, is the expressionist view of terrorism as a means of individual expression (see Stern et al. 2002 in Kegley, 2003). These two schools of thought, not surprisingly, gave rise to two distinct models of terrorists, one of those who employ terrorism on behalf of an external goal and one of those whose goal is just to carry out terrorist acts (Haroun, 2003). Rubenstein (2003), however, offers a strong critique of the 'expressivist' model and similar attempts to make distinctions between 'ordinary' terrorism and 'mass or catastrophic' terrorism. Attempts to deny the strategic rationality of attacks, he argues, have historically originated from the party that was directly under attack. Similarly, he points out the failure of 'catastrophic' terrorism to establish a link between motive and how lethal the means of attack is. The case for terrorism as an instrumental act, then, appears stronger than that of terrorism as purely a means of expression.

Related to the issue of ideology, some researchers have investigated the sources of stereotypes and prejudice and how these relate to terrorism. Dixon et al. (2003) propose a relational frame theory approach to terrorism, conceptualising human behavior as based on human language and cognition. They argue that relational frame theory can explain “why some others hate the USA and its people even though they have never met a US citizen, providing a reliable patterns of relational responding under the contextual control of environmental cues that is called relational frame, which can then promote cultural stereotypes and prejudice”. The authors found stereotypes and prejudice such as the skewed correspondence between “Muslim” and “Terrorist”, and between “American” and “Infidel” which they argue may contribute to terrorist behaviors. Again, this finding may be useful in establishing one of the preconditions for terrorism, but is not sufficient as a causal explanation.

Another contribution of behaviouralist approaches has been the identification of changes in the behaviour of terrorists over time. Thus, behavioral researchers have recently identified key changes in terrorist groups in terms of their organizational and small group behavior (Rapoport, 2001; Alexander & Swetman, 2002). Thus, Martin (2003) reveals that, from an organizational perspective, some terrorist groups now operate in a “horizontal” organizational arrangement, whereby independent cells operate autonomously and do not report to a hierarchical (“vertical”) command structure. Morgan (2004) also reports that terrorist groups have evolved from hierarchical, vertical organizational structures, to more horizontal, less command-

driven groups, with non-hierarchical structures and systems. Stevens (2005) with Borum & Gelles (2005) further observe that Al Qaeda is now evolving as a learning, networked organization with new leadership styles, tactics, and patterns of recruitment and training and that Al-Qaeda has essentially transformed into a decentralized, transnational web of affiliated networks, recruiting, training, and operating at a local level, with the efficacy of small, cellular, operational branches. Despite having many affiliate organizations in various parts of the world, then, operations do not rely on direct, "vertical" communication with leaders, or interaction among members any more. Instead, there is a greater reliance on shared experience and faith, that is, inspirational rather than tactical control. In this way, the Stevens argues, the organization is evolving into an ideological movement.

Hoffman (2003) and Borum & Gelles (2005) also find that Al Qaeda has changed its behaviour in terms of decentralizing their tactical and operational process. Although decentralized, these affiliated cells do not appear to operate with complete autonomy and receive peripheral support via funding and direction. These findings suggest that modern terrorists are turning to a "networked" behavior because networks provide more flexibility and adaptability, and possess the capacity to complete operational command remotely. Neworks have also provided terrorists with unprecedented access to resources, delivery systems, targets, and media, and have protected them from traditional security strategies (Matthew & Shambaugh, 2005).

Networked terrorist groups, then have many advantages not available to the hierarchical, bureaucratically organised counter-terrorism agencies designed to counter their activities. In addition, traditional understandings of terrorism based on organizational definitions and attributes are in some cases no longer relevant, because many terrorist organizations are now looser and more decentralized than before (Hoffman, 2003). Moreover, network associations are highly resilient and consequently difficult to destroy, especially since their small but decentralized cells can be effectively operated from around the world (Busch & Weissman, 2005; Matthew & Shambaugh, 2005). Recognizing the new, dynamic nature of network-based terrorism has important political and theoretical implications. To effectively respond to network-based terrorism, a network-based counter-terrorism strategy needs to be established.

Finally, behaviouralism has made a number of observations about terrorist recruitment methods. According to Blee (2005), three observations about terrorist recruitment policies can be made: (1) Terrorists focus their recruitment where sentiments about perceived deprivation are deepest and most pervasive; (2) Social networks and interpersonal relationships provide critical connections for recruitment into terrorist organizations; (3) In most cases recruitment involves cliques of friends. Moreover, in their recruitment process, terrorists are particularly interested in people with U.S. or other Western passports, who are not consistent with the typical Al Qaeda profile of the "young Arab male", or persons who already have particular technical knowledge in areas such as chemistry and engineering. Another important finding is that women and children are increasingly becoming terrorist groups' new recruiting targets (Blee, 2005) since they too fall outside of the 'typical' terrorist profile.

VI. Terrorism as a strategic choice and decision

One group of researchers is seeking to explain the motivation of terrorist groups by viewing terrorist activity as a decision making process. These researchers hold the view that choosing to wage a terrorist attack is the outcome of a series of complicated decisions (Crenshaw, 1990). If this decision making process can be explicated, they argue, the motivations and origins of terrorism can then be identified.

From the decision making perspective, terrorism is a tool of choice, a tool intended to induce continual fear or terror in the whole society by using violence on some part of the society, in order to achieve a specific goal or to lead to a series of significant societal changes (Garrison, 2004); and Scheffler (2006) argues that this differs terrorism from other forms of violence. Haroun (2003), likewise views terrorism as instrumental violence used to achieve a goal, thus differentiating it from affective violence and expressive violence.

In Garrison's view, it is not effective to explain social and contextual causes of terrorism because these causes vary over time. Terrorism, rather, can be better analysed in terms its rationalization, logic and perception of how to effect change, or, in other words, can be viewed as a decision making procedure. From this point of view, while terrorists may differ according their temporal, cultural and geographic environments, their target choices, motivations for using terror, goals and use of terrorism as a strategy unite them (Garrison, 2004). Other researchers emphasize the nature of terrorism as a choice among alternatives (McCormick, 2003). Terrorists usually measure the advantages and disadvantages of different means, selecting the one that can cause the greatest influence with the minimum cost. Therefore, Scheffler (2006) argues, terrorists make choices that are designed to "exploit the psychological economy of identification in such a way as to maximize the spread of fear".

Considerations of terrorism as a strategy that is rational in terms of economy necessarily lead to discussion of asymmetric warfare. By studying *The Art of War*, written by the ancient Chinese strategist, Sun Tzu, and comparing Sun Tzu's tactical advice ("kill one, frighten ten thousand") with Al Qaeda's tactics and training strategies, Bartley (2005) concluded that Al Qaeda's unconventional tactics of "indirect warfare" (or 'asymmetric warfare') were designed to "inflict previously unimaginable destruction to achieve the greater objective of spreading fear". Similarly, Sandler (2004) views terrorism as a use, or threat of use, of extranormal violence to obtain a political objective through terror or fear conveyed to a large audience. Sandler studied terrorism by observing it in terms of dynamic strategic interaction in Game Theory. First, economic analysis was used to explain the strategic interactions among opposing interests in terrorism: the terrorists and the authorities. Second, rational-choice models, based on microeconomic principles, were applied to identify how terrorists respond to policy-induced changes based on their constraints. The game can

be made more realistic if additional information about terrorists is included. Sandler claims that the advantage of using game theory is that it permits the evaluation of policies while accounting for uncertainty and the strategic interactions of opposing interests. He also uses the above method to model and test the dynamic strategic interaction of terrorist groups' decision making process.

Indicative of how terrorists responded to policy-induced changes was their change in target selection as part of their decision making process. Initially, terrorists tended to select symbolic targets for attack, and terrorist violence was usually aimed at groups rather than individuals (Reid, 2003). However, to adapt to the environmental pressures of the "War on Terror", terrorists have begun to employ more covert and deceptive target choice strategies. Borum (2004) revealed in his report that terrorist groups such as Al Qaeda have adapted such a strategy by selecting Western targets and interests on foreign soil rather than in the US, for example, the Bali bombing in 2002. He also argues that their target selection strategy has shifted from "hardened", high profile targets to "softer", more populated ones. This strategy, he argues, combined with decentralized, inspirational leadership and outreach through affiliate organizations around the world, has enabled Al-Qaeda to broaden its geographic coverage of influence and operations (Borum & Gelles, 2005).

Also analysing target choice, Drakos and Gofas (2006) developed an empirical model for transnational terrorist activity after analyzing a database consisting of 139 countries over the period 1985-1998, trying to describe the distributional tendencies of attacks by adopting a statistical model. They observed that the historical terrorist attack venue is, on average, characterized by low economic openness, high demographic stress, and a high level of international disputes. Despite these findings, Drakos and Gofas state that forecasting terrorist incidents, especially on a country-time level, remains impossible, and that the historical profile of the terrorist attack venue cannot be automatically extended to make predictions about future attacks. They conclude that their model can only serve as an explanatory tool. Another important finding of Drakos and Gofas is the observation that Al Qaeda are now adopting some tricks in target selection, such as keeping separate the attack location and the location the attack was initiated from, to create chaos and confusion in the target venue.

There are also a number of different perspectives on terrorist decision making processes, each of which emphasizes different aspects.

Gurr (1986) views conditions as most important in the decision making process and identifies three sets of conditions that affect decision making of the potential terrorist: (1) Situational conditions, (2) Structural conditions, and (3) Dispositional conditions. Situational conditions include the political traits (status and strategies) of their opponent, e.g. the authorities, and the terrorists' own political resources for countering the authorities, including organizational strength, support, and public acquiescence. Structural conditions are those that define organizational relations with one's opponents and supporters. Dispositional conditions are those can be expected to influence how acceptable the strategies of terrorism are to organizations.

Stohl and Stohl (2005) extend these ideas on conditions affecting the decision making process by identify rules, the "Eight Rs", for understanding global organizations. The eight Rs include: (1) Relationship: What is the organization's network? (2) Rule: How do systemic structures affect the organization, its network, and its opportunities? (3) Resource: What are the organization's resources, and who are its potential opponents? (4) Record: What is the history of the organization and the history of the region in which it operates? How do these affect the organization's choices? (5) Region: Where is the organization's zone of operations, and who are its referents? (6) Reading: How does the organization perceive and interpret its and its opponents' "reality", "symbols", and "routines"? (7) Rationale: What provides meaning and understanding for the organization? (8) Responsibility: How does the organization justify its actions to itself and to potential supporters and others?

Haroun (2003), in contrast, holds the view that decisions are made based on risk analysis. Terrorists first estimate risk, which they evaluate using intelligence and knowledge. They then evaluate their own risk tolerance, risk tolerance involving a complex combination of motivation, courage/cowardice, and determination. Terrorists, Haroun finds, are often ready to tolerate extremely high risk.

McCormick (2003) summarizes and categorizes the alternate theories formulated to answer the questions of how terrorists and terrorist groups make decisions and what influences this has on their actions as: 1) strategic, 2) organizational and, 3) psychological. He views "strategic theories", as those in which it is argued that the decision to employ terrorism and related forms of political violence is an instrumental choice made by a rational organization attempting to achieve a defined set of external objectives. Choice is constrained and influenced by opponents' constituency, and any others influencing the strategic environment. The second class of theory is "organizational theories", in which it is argued that decisions to use violence are found in the internal dynamics of the terrorist group itself. Terrorists believe that they act as soldiers and their actions are defensive, and they usually possess unquestioned collective beliefs. The third class of theory is "psychological theories", in which the decision to employ terrorism is explained within the framework of individual psychology. This theory argues that there is no single set of common psychic attributes which shapes terrorists. Rather, terrorists are the product of two possible psychological models: (1) "frustration-aggression", a discrepancy between individual expectation and achievement, and (2) "narcissism-aggression". According to these theories, the individual belief system is the unifying theme in terrorists' decision making process, and it can be influenced significantly by intra-group dynamics. However, McCormick qualifies his classification with the observation that it is difficult to generalize about psychological models of terrorist decision making.

However, Garrison (2004) points out that a comparison of historic terrorist personalities and decision making shows that the individual path to terrorism may not only vary significantly between different cultures and time periods, but also differs significantly within a single cultural setting and time period. He argues that terrorists

can be thought of as adaptive strategic agents, that can be influenced by the internal logic of the terrorist group itself. Furthermore, terrorist decision making is a trade-off between influence and security. A terrorist group must “first establish a stable set of preferences. It must then develop an accurate understanding of its strategic environment, identify its range of tactical options, accurately evaluate the payoffs associated with these options, select and carry out the course of action that promises to deliver the highest expected return given its preference structure, compare its actual and expected achievements, and, finally, adjust its operating profile (and/or assumptions) to improve its performance.” (Garrison, 2004)

The decision making approach, then, appears useful for what it can offer in terms of identifying patterns based on behaviour, strategy and logic. And, as Crenshaw argues:

If there are consistent patterns in terrorist behaviour, rather than random idiosyncrasies, a strategic analysis may reveal them. Prediction of future terrorism can only be based on theories that explain past patterns. (Crenshaw, 1990: 24)

VII. DISCUSSION AND CONCLUSIONS

Reviewing key literature in the field of causes of terrorism, then, it was found that studies broadly fell into four broad categories with regard to their theory of causation. These are as follows:

- Theories of the individual: These theories (mainly psychological) explain terrorism in terms of personality types and disorders, and personal traits and experiences that predispose individuals to engage in terrorism. From this point of view, as Post (1990) points out, terrorism itself may be the goal of individuals compelled by psychological forces and experiences.
- Social theory: Socialization, social ties, socio-economic factors, culture, and social forces such as globalisation have also, independently or in conjunction with individual factors, been offered as conditions and influences producing terrorism. Importantly, researchers have also investigated terrorism as a socially constructed phenomenon. This research is especially significant since it offers some insight into the perennial 'defintion' debate within terrorism studies as well as indicating the 'constructed' nature of reports about terrorism that has implications for the research methodology of terrorism studies.
- Rational choice theory: This instrumental paradigm views terrorism as goal oriented, with terrorist activities being a means to achieving certain political or ideological goals, such as the removal of foreign influence or achieving national independence. Rational choice theories have variously integrated or ignored social and individual psychology factors.

As Nacos (2006) points out, instrumental paradigms are incompatible with those that view terrorism as expressive or pathological. However, as was seen from the review,

psychological, behaviouralist and social science theories of terrorism are not intrinsically incommensurable with each other and there is no reason why they cannot be combined in studies of terrorism. While care is needed not to conflate different levels of analysis when integrating or comparing findings from different fields, and similar care must be used in integrating findings that use different definitions and conceptual frameworks, a number of conclusions can be drawn here about the research reviewed here.

While explanations of terrorism offered solely at the level of the individual or at the level of environment (ie. globalization, oppression, relationships) remain weak both in terms of their predictive value and at the level of causal explanation, explanations integrating the group, individual and societal levels were more robust. Further, approaches that dealt with processes (whether focusing on decision making or focusing on terrorism as a process) were even more robust. Additionally, process models avoided, to a degree, some of the definitional and conceptual issues unavoidable in other models. Finally, rational choice theories that view terrorism as a decision making process offered the highest level of prediction and causal explanation.

Decision making process models have also demonstrated their capacity for integrating mutidisciplinary approaches. Thus, Crenshaw (2003) integrates sociological, political and psychological perspectives in her analysis of the situational variables (preconditions and precipitants), the strategic advantages, and individual motivations for participation in terrorism.

As this review also established, a thorough consideration of the social constitution of terrorism by the media, government, bureaus and public is required. Thus, as Jenkins (2003) points out, researchers need to be aware of how some media and government accounts of terrorism are more acceptable than others, and how changes in the political environment result in a change in conceptualisation of the terrorist threat. The aim is not to trivialize the problem of terrorism, rather, the aim is for researchers to be more critical about the sources and construction of information, whether provided by the media, terrorists or bureaus. In order to gain a more critical perspective, Jenkins argues, one also needs to draw upon the disciplines of history, economics and political science (as well sociology or psychology).

This review identified a number of areas requiring future research focus and investigation. These include:

(1) A systematic, multi-disciplinary analysis and study of the temporal and spatial development of terrorism is urgently needed. Currently many independent studies on terrorism within individual disciplines exist, however, there is no unified, systematic, and comprehensive framework within which to combine these studies in a way that can integrate the individual, the group, and the society together in the research context (Crenshaw, 2005). In fact, all these different disciplinary findings can be made relevant to one another and more researchers are realizing that the best way to understand terrorism is to examine the multiple (social, economic, political, and psychological)

causal factors existing at a particular time and place (Ilardi, 2004; Griset & Mahan, 2003). In other words, a multidisciplinary research effort is needed to investigate the origins of terrorism.

(2) The 'framing' and definition issues in terrorism need further work, especially with regards to the social constitution of terrorism as a phenomenon. A single, universally accepted definitive description of terrorism may not be achievable, but a set of standard characteristics of terrorism may be identifiable. While the diversity of terrorism definitions benefit individual disciplines, how to usefully combine or select among definition characteristics for a specific research context needs to be investigated. An investigation of how terrorism is identified and used for practical purposes by different groups may be useful.

(3) More empirical and “operationally-informed” research supported by first-hand data about terrorists and their activities is required.

(4) The development of new terrorism strategies, including increasingly decentralized decision making processes and operational cooperation between separate terrorist organizations, requires more research attention. Research in the area of social network analysis, graph theory, and complex adaptive systems may be promising starting points for further analysis of strategies and decision making.

References

Abbass, H., M. Barlow, et al. (2005). Connecting the dots to disconnect them: A study into network evolution and dynamics for analyzing terrorist networks. Microelectronics, MEMS, and Nanotechnology Symposium, Complex Systems Conference, Brisbane, Queensland, The International Society for Optical Engineering.

Ackerman, G. (2005). "WMD Terrorism Research: Whereto from Here? ." International Studies Review **7**: 140-143.

Ahmed, E., A. Elgazzer, et al. (2005). "On complex adaptive systems and terrorism." Physics Letters: A **337**: 127-9.

Alexander, D. and S. Klein (2005). "The psychological aspects of terrorism: from denial to hyperbole." Journal of the Royal Society of Medicine. **1**(4): 557-562.

Alexander, Y. and M. Swetman (2002). Osama bin Laden's Al-Qaida: Profile of a terrorist network. Ardsley, NY., Transnational Publishers.

Arena, M. P. and B. A. Arrigo (2005). "Social psychology, terrorism, and identity: A preliminary re-examination of theory, culture, self, and society." Behavioural Sciences and the Law **23**(4): 485-506.

Barken, S. and L. Snowden (2001). Collective Violence. Boston, Allyn & Bacon.

Bartley, C. M. (2005). "The art of terrorism: What Sun Tzu can teach us about international terrorism." Comparative Strategy **24**(23): 237-251.

Bartley, C. M. (2005). "The art of terrorism: What Sun Tzu can teach us about international terrorism." Comparative Strategy **24**: 237-251.

Benjamin, G. F. (2005). "What is terrorism? Redefining a phenomenon in a time of war." Peace and Change **30**(2): 231-46.

Berrebi, C. (2003). "Evidence About The Link Between Education, Poverty and Terrorism Among Palestinians. ." Princeton University Industrial Relations Section Working Paper No. 477. Retrieved November 1, 2006, from http://ssrn.com/abstract=487467

Bjorgo, T., Ed. (1995). Terror from the Extreme Right. . London, Frank Cass.

Blain, M. (2005). On the genealogy of terrorism. 37th world congress of the international institute of sociology, Stockholm, Sweden.

Blee, K. M. (2005). "Women and organized racial terrorism in the United States." Studies in Conflict and Terrorism **28**: 421-433.

Blum, A., V. Asal, et al. (2005). "Nonstate actors, terrorism, and weapons of mass destruction." International Studies Review **7**(1): 133-170.

Borum, R. (2003). "Understanding the terrorist mindset." FBI Law Enforcement Bulletin **72**(7): 7-10.

Borum, R. (2004). Psychology of Terrorism. Tampa, Florida, University of South Florida.

Borum, R. and M. Gelles (2005). "Al-qaeda's operational evolution: Behavioural and organizational perspectives." Behavioural Sciences and the Law **23**(4): 467-83.

Brams, S. J., H. Mutlu, et al. (2006). "Influence in terrorist networks: From undirected to directed graphs." Studies in Conflict and Terrorism **29**(7).

Brannan, D. W., P. F. Esler, et al. (2001). "Talking to "Terrorists": Towards an Independent Analytical Framework for the Study of Violent Substate Activism. ." Studies in Conflict and Terrorism **24**(1): 3-24.

Burnett, J. and W. Dave (2005). "Embedded expertise and the new terrorism." Journal for Crime, Conflict and the Media. **1**(4): 1-18.

Busch, K. G. and S. H. Weissman (2005). "The intelligence community and the war on terror: The role of behavioural science." Behavioural Sciences and the Law **23**(4): 559-71.

Byman, D. (2005). "Strategic surprise and the September 11 attacks." Annual Review of Political Science **8**(December): 145-170.

Collins, J. (2002). Terrorism. . Collateral Language: A User's Guide to America's New War. J. Collins and R. Glover. New York, New York University Press.

Conners, M. K. (2006). "War on error and the Southern fire: How terrorism analysts get it wrong." Critical Asian Studies **38**(1): 151-75.

Cooper, H. (2001). "Terrorism: The Problem of Defintion Revisited." American Behaviouralist Scientist **44**(6): 881-893.

Cooper, H. (2002). Terrorism: The problem of definition revisited. Essential Readings on Political Terrorism. H. Kushner. Lincoln, New England, Gordian Knot Books**:** 1-16.

Cooper, H. H. A. (1978). "Psychopath as terrorist." Legal Medical Quarterly(2): 253-262.

Crayton, J. W. (1983). Terrorism and Psychology of the Self. Perspectives on Terrorism. L. Z. Freedman and Y. Alexander. Delaware, Scholarly Resources**:** 33-41.

Crelinsten, R. (1987). Terrorism as political communication: The relationship between the controller and controlled. Contemporary Research on Terrorism. P. Wilkinson and A. Stewart. Aberdeen, Aberdeen University Press**:** 3-23.

Crenshaw, M. (1985). "An organizational approach to the analysis of political terrorism." Orbis **39**: 465-89.

Crenshaw, M. (1990). The logic of terrorism. Origins of Terrorism. W. Reich. Cambridge, Cambridge University Press**:** 7-24.

Crenshaw, M. (1992). "Decisions to use terrorism: Psychological constraints on instrumental reasoning." International Social Movements Research(4): 29-42.

Crenshaw, M., Ed. (1995). Terrorism in Context. Pennsylvania, PSU Press.

Crenshaw, M. (1998). The Logic of Terrorism: Terrorist Behaviour as a product of Strategic Choice. Origins of Terrorism: Psychologies, Ideologies, Theologies, and States of Mind. W. Reich. Washington, Woodrow Wilson Center Press.

Crenshaw, M. (2000). "The psychology of terrorism: an agenda for the 21st century." Political Psychology **21**(2): 405-420.

Cronin, A. K. (2002). "Behind the curve: Globalization and international terrorism." International Security **27**(3): 30-58.

deMause, L. (2002). "The childhood origins of terrorism." Journal of Psychohistory **29**(4): 340-348.

Derian, J. D. (2005). "Imaging terror: logos, pathos and ethos." Third World Quarterly **26**(1): 23-37.

Dixon, M. R., S. Dymond, et al. (2003). "Terrorism and relational frame theory." Behaviour and Social Issues **12**(2): 129-147.

Drake, C. (1998). Terrorists' target selection. New York, St Martin's Press.

Drakos, K. and A. Gofas (2006). "In search of the average transnational terrorist attack venue." Defence and Peace Economics **17**(2): 73-93.

Elder, J. and H. Glen (1985). Perspectives on the Life Course. Life Course Dynamics: Trajectories and Transitions, 1968-1980. G. H. Elder. Ithaca, NY., Cornell University Press**:** 23-50.

Ellis, J. O., H. Chen, et al. (2004). "MIPT: Sharing Terrorism information resources." Lecture notes in computer science. **3073**: 520-525.

Fleming, M. (1980). "Propaganda by the deed: Terrorism and anarchist theory in late

nineteenth-century Europe." Terrorism **4**: 1-23.

Franks, J. (2006). "Rethinking the roots of terrorism: Orthodox terrorism theory and beyond." Global Society: Journal of Interdisciplinary International Relations

Fried, R. (1982). The psychology of the terrorist. Terrorism and beyond: An international conference on terrorism and low-level conflict. B. M. Jenkins. Santa Monica, CA, Rand**:** 119-124.

Garrison, A. (2002). Terrorism: Past, present and future - a training course. Delaware Criminal Justice Council.

Garrison, A. (2003). "Terrorism: The nature of its history." Criminal Justice Studies **16**(1): 39-52.

Garrison, A. H. (2004). "Defining terrorism: Philosophy of the bomb, propaganda by deed and change through fear and violence." Criminal Justice Studies **17**(3): 259-279.

Garten Ash, T. (2003). Is there a good terrorist? The New Global Terrorism. . C. Kegley. New Jersey, Pearson Education**:** 60-70.

Gergen, K. J. (2001). "Psychological science in a postmodern context." American Psychologist **56**: 803-813.

Gottschalk, M. and S. Gottschalk (2004). "Authoritarianism and pathological hatred: The social psychological profile of the middle eastern terrorist." The American Sociologist **35**(2): 38-59.

Griset, P. and S. Mahan (2003). Terrorism in perspective. London, UK, Sage.

Gurr, T. R. (1986). The political origins of state violence and terror: A theoretical analysis. Government Violence and Repression: An Agenda for Research. M. Stohl and G. Lopez. New York, Greenwood Press**:** 45-71.

Gurr, T. R. (1988). Empirical Research on Political Terrorism: The state of the art and how it might be improved. Current Perspectives on International Terrorism. R. Slater and M. Stohl. London, Macmillan**:** 115-154.

Haroun, A. (2003). "Psychiatric evaluation of suspected terrorists difficult." Psychiatric Annals **33**(11): 738-742.

Herman, E. and G. O'Sullivan (1989). The "Terrorism" Industry: The Experts and Institutions That Shape Our View of Terror. New York, Pantheon Books.

Hoffman, B. (1997). "Terrorism and WMD: Some preliminary hypotheses." The Nonproliferation Review **4**(Spring/Summer): 45-53.

Hoffman, B. (1999). Inside Terrorism. New York, Columbia University Press.

Hoffman, B. (2003). "Al qaeda, trends in terrorism, and future potentialities: An assessment." Studies in Conflict and Terrorism **26**(6): 429-442.

Horgan, J. (2005). Psychology of terrorism. London, Routledge.

Horgan, J. and M. Taylor, Eds. (2000). The Future of Terrorism. London, Frank Cass.

Howell, L. D. (2003). Is The New Global Terrorism a Clash of Civilizations?: Evaluating Terrorism's Multiple Sources. The New Global Terrorism: Characteristics, Causes, Controls. C. Kegley. Upper Saddle River, NJ, Prentice Hall**:** 173-184.

Hudson, R. A. (1999). The sociology and psychology of terrorsm: Who becomes a terrorist and why? Washington D.C., Federal Research Division, Library of Congress.

Ignatieff, M. (2004). The Lesser Evil: Political Ethics in an Age of Terror. Princeton, NJ., Princeton University Press.

Ilardi, G. (2004). Redefining the issues: The future of terrorism research and the search for sympathy. Research on Terrorism: Trends, Achievements and Failures. A. Silke. London, Frank Cass**:** 214-229.

Jenkins, P. (2003). Images of terror : what we can and can't know about terrorism. New York, Aldine de Gruyter.

John, P. S. (1991). "Origins of terrorism: Psychologies, ideologies, technologies, states of mind." Canadian Journal of Political Science **24**(3): 680-1.

Johnson, A. G. (1995). The Blackwell dictionary of sociology: A user's guide to sociological language. New York, Blackwell.

Juergensmeyer, M. (2001). Terror in the Mind of God: The Global Rise of Religious Violence. California, University of California Press.

Kalis, M. A. (2001). "A new approach to international terrorism." International Affairs Review **10**(2): 80-95.

Kegley, C., Ed. (2003). New global terrorism : characteristics, causes, controls. Upper Saddle River, NJ, Prentice Hall.

Kellner, D. (2002). "September 11 and Terror War: The Bush Legacy and the Risks of Unilateralism. ." Logos **1**: 19–41.

Kowalski, R. (2005). "On terrorism and the politics of compulsion." World Futures **61**: 188-98.

Krueger, A. B. and J. Maleckova (2003). "Education, poverty and terrorism: Is there a causal connection?" Journal of Economic Perspectives **17**(4): 119-144.

Kushner, H. (1998). Terrorism in America: A structured approach to understanding the terrorist threat. Springfield, Illinois, Charles C Thomas.

Laqueur, W. (1999). The New Terrorism : Fanaticism and the Arms of Mass Destruction. New York, Oxford University Press.

Laqueur, W. (2003). No End to War, Terrorism in the Twenty-First Century. . New York, Continuum.

Laqueur, W. and Y. Alexander (1987). The terrorism reader: A historical anthology. New York, New American Library.

Lesser, I. O., B. Hoffman, et al. (1999). Countering the New Terrorism. Santa Monica, US, Rand Corporation.

Lopez, G. and N. Gordon (2000). Terrorism in the Arab-Israeli Conflict. Ethics in

International Affairs. A. Valls. Lanham, Rowman & Littlefield**:** 99-116.

Macias, J. (2002). "The tragedy of terrorism: Perspective, reflection, and action in the aftermath." Anthropology and Education Quarterly **33**(3): 280-282.

Maria, C. (2003). Terrorism and game theory: Coalitions, negotiations and audience costs. Department of Government and Society. Limerick, Ireland, University of Limerick. **Masters**.

Martens, W. H. J. (2004). "Terrorists with anitsocial personality disorder." Journal of Forensic Psychology Practice. **4**(1): 45-56.

Martin, C. (2003). The nature of the beast: Defining terrorism. Understanding Terrorism Challenges, Perspectives, and Issues. G. Martin. California State University, Dominguez Hills, Sage**:** 22-54.

Martin, G. (2006). Understanding terrorism : challenges, perspectives, and issues. Thousand Oaks, Calif., Sage.

Matthew, R. and G. Shambaugh (2005). "The limits of terrorism: A network perspective." International Studies Review **7**: 617-627.

McCauley, C. (2002). The psychology of terrorism: Theoretical Understandings and Perspectives. Psychological issues in understanding terrorism and the response to terrorism. C. Stout. Westport, CT., Praeger Publishers. **3:** 3-29.

McCormick, G. H. (2003). "Terrorist decision making." Annual Review of Political Science **6**(June): 473-507.

Merari, A. (2000). Terrorism as a Strategy of Struggle: Past and Future. The future of terrorism. M. Taylor and J. Horgan. Portland, OR, Cass**:** 52-65.

Merari, A. and N. Friedland (1985). "Social psychological aspects of political terrorism." Applied Social Psychology Annual **6**: 185-205.

Milgram, S. (1974). Obedience to authority. New York, Harper and Row.

Miller, L. (2006). "The terrorist mind: A psychological and political analysis." International journal of offender therapy and comparative criminology **50**(2): 121-38.

Mitchell, A. J. (2005). "Heidegger and terrorism." Research in Phenomenology **35**: 181-218.

Moghaddam, F. M. (2005). "The staircase to terrorism: a psychological exploration." The American Psychologist **60**(2): 161-9.

Morgan, M. J. (2004). "The origins of the new terrorism." Parameters, US Army War College Quarterly **34**(1): 29-43.

Munthe, T. (2005). "Terrorism: Not who but why?" Royal United Services Institute Journal(August): 8-12.

Nacos, B. (2006). Terrorism and counterterrorism : understanding threats and responses in the post-9/11 world. New York, Longman.

O'Sullivan, G. and E. Herman (1991). Terrorism as Ideology and Cultural Industry. Western State Terrorism. A. George. Cambridge, Polity Press**:** Chapter 3.

Post, J. M. (1990). Terrorist psycho-logic: Terrorist behaviour as a product of psychological forces. Origins of terrorism: Psychologies, ideologies, theologies, states of mind. W. Reich. Cambridge, Cambridge University Press**:** 25-40.

Post, J. M. (2005). "The new face of terrorism: Socio-cultural foundations of contemporary terrorism." Behavioural Sciences and the Law **23**(4): 451-65.

Rapoport, D. C. (2001). "The fourth wave: September 11 in the history of terrorism." Current History **December**: 419-24.

Rapoport, D. C. (2001). Inside terrorist organizations. London, UK, Frank Cass.

Reid, W. H. (2003). "Terrorism and forensic psychology." Journal of American Academic Psychiatry and Law **31**: 285-288.

Rodin, D. (2004). "Terrorism without intention." Ethics **114**(July): 752-771.

Ross, J. (1993). "Structural causes of oppositional political terrorism." Journal of Peace Research **30**: 317-319.

Rubenstein, R. E. (1987). Alchemists of Revolution. . New York, Basic Books.

Rubenstein, R. E. (2003). The psycho-political sources of terrorism. The New Global Terrorism. C. Kegley. New Jersey, Prentice Hall**:** 139–149.

Russell, C. A. and B. H. Miller (1978). Profile of a Terrorist. Contemporary Terrorism: Selected Readings. . J. D. Elliott and L. K. Gibson. Gaithersburg, Maryland, International Association of Chiefs of Police**:** 81-95.

Sageman, M. (2004). Understanding Terror Networks. Philadelphia, University of Pennsylvania Press.

Sampson, R. J. and J. H. Laub (1993). Crime in the Making: Pathways and Turning Points Through Life. Cambridge, MA., Harvard University Press.

Samuels, A. (1993). The political psyche. London, UK, Routledge.

Sandler, T. and E. W. (2004). "An economic perspective on transnational terrorism." European Journal of Political Economy **20**(2): 301-316.

Scheffler, S. (2006). "Is terrorism morally distinctive?" The Journal of Political Philosophy **14**(1): 1-17.

Schmid, A. (1983). Political Terrorism: A research guide to concepts, theories, data bases and literature. New Brunswick, New Jersey, USA, Transaction Books.

Schmid, A. (1993). The Response Problem as a Definition Problem. Western Responses to Terrorism. . A. Schmid and R. Crenlinsten. London, Frank Cass**:** 7-13.

Schmid, A. and A. Jongman (1988). Political Terrorism: A New Guide to Actors, Authors, Concepts, Data Bases, Theories and Literature. Amsterdam, North-Holland.

Schmid, A. P. (2004). "Frameworks for conceptualizing terrorism." Terrorism and political violence **16**: 197-221.

Sick, G. (1990). The political underpinnings of terrorism. International Terrorism: Characteristics, Causes, Controls. . C. Kegley. New York, St. Martin's Press.

Sidman, M. (2003). "Introduction: Terrorism as behaviour." Behaviour and Social Issues **12**(2): 83-89.

Silke, A. (1998). "Cheshire-cat logic: The recurring theme of terrorist abnormality in psychological research." Psychology, Crime and Law **4**: 51-69.

Silke, A. (2001). "The devil you know: Continuing problems with research on terrorism." Terrorism and political violence **13**(4): 1-14.

Silke, A., Ed. (2004). Research on Terrorism: Trends, Achievements and Failures. London, Frank Cass.

Sivan, A. (1985). Radical Islam: Medieval theology and modern politics. New Haven, CT., Yale University.

Spriznak, E. (2000). "Rational Fanatics. " Foreign Policy(September).

Stevens, M. J. (2002). The unanticipated consequences of globalization: Contextualizing terrorism. The psychology of terrorism. C. Stout. Westport, CT., Praeger. **3:** 29-54.

Stevens, M. J. (2005). "What is terrorism and can psychology do anything to prevent it?" Behavioural Sciences and the Law **23**(4): 507-526.

Stohl, M. and C. Stohl (2005). Approaching Global Organizing. London, UK., Sage Publications.

Studies, C. f. N. (2002). Literature Review of Existing Terrorist Behaviour Modelling. . California, Centre for Nonproliferation Studies.

Talbott, S. and N. Chanda, Eds. (2002). The Age of Terror: America and the World After September 11 New York, Basic Books.

Taylor, M. and J. Horgan (2001). "The psychological and behavioural bases of islamic fundamentalism." Terrorism and political violence **13**(4): 37-71.

Turco, R. M. (1987). "Psychiatric contributions to the understanding of international terrorism." International journal of offender therapy and comparative criminology **31**(2): 153-161.

Watkins, M. (2002). "Waking up: Depth psychology and terrorism: from denial to hyperbole." Psychological Perspectives **44**: 14-24.

Weinburg, L. and W. Eubank (2004). Everything that descends must converge: Terrorism, Globalisation and Democracy. Research on Terrorism: Trends, Achievements and Failures. A. Silke. London, Frank Cass**:** 91-104.

Wessells, M. (2002). Terrorism, social injustice and peace building. The psychology of terrorism. C. Stout. Westport, CT., Praeger. **4:** 57-73.

Winerman, L. (2004). "Criminal profiling: The reality behind the myth." Monitor on Psychology **35**(7): 66-69.

Zimbardo, P. G. (2004). A situationist perspective on the psychology of evil: Understanding how good people are transformed into perpetrators. The social psychology of good and evil: Understanding our capacity for kindness and cruelty. A.

Miller. New York, Guilford.