TO NEGOTIATE OR NOT TO NEGOTIATE: AN EVALUATION OF GOVERNMENTS' RESPONSE TO HOSTAGE EVENTS, 1967-1987
AND THE DETERMINANTS OF HOSTAGE EVENT FREQUENCY

THESIS

Presented to the Graduate Council of the University of North Texas in Partial Fulfillment of the Requirements For the Degree of

MASTER OF ARTS

By

Paul B. Woodard, B.A.

Denton, Texas

December 1997

Ordinary Least Squares (OLS) regression analysis is applied to a cross-national data set to test two hypotheses concerning governments' hard-line response against terrorism: do hard-line responses cause more damage *vis a vis* event outcome and is the hard-line approach a deterrent? Six national factors are included in this analysis: economic development, economic growth rate, democratic development, leftist regime type, military regime type and British colonial legacy. Only the level of economic development, economic growth rate and leftist regime type demonstrated statistically significant relationships with the dependent variable "event frequency." Government response strength demonstrated a strong statistically significant relationship with event outcome, however, its relationship with event frequency was statistically insignificant.
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CHAPTER ONE

THEORY-BUILDING EFFORTS IN TERRORIST LITERATURE: A REVIEW

There has been an ongoing debate among people of good conscience concerning the best means of responding to either threats or actual acts of political terror. In an unstable international system faced with heightened reliance on violence by state and non-state actors as a means to a political end, this debate gains increased relevance. The study of terrorism as a distinct form of political violence is a relatively new arrival in what has become a distinct subfield of international relations and comparative studies. The result is a clear delineation by scholars between the use of political terror and other forms of political violence (Alexander and Gleason, 1981; Miller, 1988). An important step in the development of this field was the establishment of Terrorism: An International Journal in 1977 as an academic publication dedicated solely to the study of political terror.

The use of terror as a weapon is not a recent development. Rapoport (1984) explains that the use of terror by non-state actors predates modern societies and
that it has long been an effective tool of "oppressed" or disenfranchised groups. Quainton (1983a: 54) concurs by stating that modern terrorism "is only a refinement of age-old tactics of intimidation, intrigue, and assassination." However, with the technological advances in weapons systems and communications as well as the proliferation of weapons of mass destruction, the need for studying and understanding terror as a political weapon in and of itself gains "heightened salience" (Norton and Greenburg, 1980: 2).

It is clear from the events within the past two decades that terrorism is viewed by some as an effective strategy and as a threat by many others. Cline (1982) predicted that the 1980s would be a period of increased terrorist activity, and others (Cauley and Sandler, 1988) anticipate such trends to continue through the 1990s. The 1993 bombing of New York's World Trade Center, the April 1995 bombing of the Alfred P. Murrah Federal Building in Oklahoma City, the events that continue to unfold in the Middle East and the increased attention being paid to the role played by ethnic and nationalist movements worldwide underscores the need to study and understand terrorism.

The primary goal of this thesis is to gain a greater understanding of the consequences of government policies toward a particular type of terrorist activity: the hostage
event. I do this in the hope of being able to say something of use to scholar and practitioner alike. Each of the chapters in this thesis will be a necessary step toward this end. In the remainder of this chapter I will set the stage for the rest of the thesis by discussing the burgeoning literature on international terrorism in general. In the second chapter I will discuss studies involving the taking of hostages, focusing especially on those that examine the efficacy of various government approaches to respond to these threats. In Chapter Three I will discuss the data sets that are used and the variables that are selected. In Chapter Four I will provide the models to be tested through the use of quantitative analysis and the results of these tests. Finally, I will summarize the findings of these analyses and draw conclusions from them, as well as suggest directions for future research.

Terrorism: A Definitional Problem

Perhaps the greatest difficulty facing those who study terrorist activity is definitional. Alexander (1987: i) explains that ten years after founding Terrorism: An International Journal "there is still no consensus on the questions we had posed then: 'What acts constitute terrorism? What are the underlying causes of the
phenomenon? How can and should we deal with it?" The fundamental issue facing academics and policy makers is that terrorism is a value laden term (Fattah, 1981; Jenkins, 1981; Prince, 1989; White, 1991). The common cliché that "one man's terrorist is another man's freedom fighter" or the statement by former British prime minister Margaret Thatcher that "a terrorist is a terrorist is a terrorist" (Prince, 1989: 308) implies that a common standard for judging acts of political violence does not exist. This is evidenced in numerous definitions espoused by Western scholars and policy makers. For some, terrorism "is the deliberate and systematic murder, maiming, and menacing of the innocent to inspire fear for political ends" (Netanyahu, 1986: 9). Others describe terrorism as an "abnormal" form of political activity in that the targets of such events are often "nonmilitary, frequently with no direct connection to the cause being promoted" (Quainton, 1983b: 170).

In the world of the policy maker, terror is viewed as either the "calculated use of violence or threat of violence to attain political, religious, or ideological goals by instilling fear or using intimidation or coercion" (Army Regulation 190-52), or as a means to "intimidate or coerce government, individuals, or groups to modify their behavior or politics" (Bush, 1986: 3).
Others regard terrorism as a means by which the weak and oppressed can effectively combat those who hold and abuse their economic or political power (Albin, 1989; Rubenstein, 1987; Saper, 1988; White, 1991). Albin (1989) explains that there should be an understanding of the actors' underlying motives for resorting to violence, such as in wars of national liberation. For Rubenstein, those who rely on political terror "are not insane fanatics, career criminals, or government hirelings, but normal people driven to extremes by their situation and by mistaken political conceptions" (1987: 228).

This leads to the establishment of a clear distinction between violence used by insurgent or revolutionary groups and the violence and terror employed by the state. By recognizing this distinction, insurgent violence is granted a measure of legitimacy in that the insurgent is fighting on behalf of an oppressed population against state tyranny. Saper (1984: 24) explains that although insurgent or revolutionary terror is "directed upward against an institutionalized authority or stronger adversary," state terror is "directed downward against its people." Moreover, the use of terror by the state or the ruling elite is a strategy to both subdue internal opposition and to maintain power (Albin, 1989: 188; White, 1991: x). As argued by
Yassir Arafat, the chairman of the Palestinian Liberation Organization, "He who fights for a just cause...can never be defined as a terrorist" (as quoted in Albin, 1989: 186).

Fattah (1981) argues that part of the problem in creating an acceptable definition of terrorism is the relativity of the concept, i.e. of who are the terrorists and what is terrorism or terroristic. According to Fattah, "The search for a viable definition of terrorism is, in fact, a search for one or more denominators common to all terrorist activities. One such denominator is the use of violence - actual or threatened, physical or psychological - in some extreme form to achieve certain ends" (Fattah 1981: 13-14). A clear definition of terrorism must take into account "the actions of the governors as well as the governed, to the crimes of the rulers as well as those of the ruled" (ibid., 13).

Jenkins explains that much of the problem with the use of the term "terrorism" is that it "implies a moral judgement; and if one party can successfully attach the label 'terrorist' to its opponent, then it has indirectly persuaded others to adopt its moral viewpoint" (Jenkins, 1981: 3). Therefore, the term is not only "slippery" and "politically loaded" but is also often loosely "applied to political extremists, common criminals, and authentic
lunatics" (ibid., 10). White concurs by stating that "terrorism is difficult to study objectively, because it evokes deep-seated political emotions" (White, 1991: xi).

What all definitions of terrorism have in common, regardless of their source, philosophical approach or the values placed on the term, is that they focus on the fact that such violence is a means taken to reach a political end. As explained by one scholar, terrorism can be defined as a "purposeful human activity primarily directed toward the creation of a general climate of fear designed to influence, in ways desired by the protagonists, other human beings, and through them some course of events" (Sloan, 1987: 1). Such a definition is well designed as it remains value neutral and can be used to define the activities of both governments and insurgents.

However, for the purpose of this study Mickolus and Heyman's definition of terrorism will be used. The justification for choosing this definition is that the subject of this study, hostage crises, tend to be carried out predominantly by non-state actors as opposed to national regimes operating in the international arena. Therefore, terrorism is defined as

"the use, or threat of use, of anxiety-inducing extra-normal violence for political purposes by any individual or group, whether acting for or in
opposition to established governmental authority, when such action is intended to influence the attitudes and behavior of a target group wider than the immediate victims and when, through the nationality or foreign ties of its perpetrators, its location, the nature of its institutional or human victims, or the mechanics of its resolution its ramifications transcend national boundaries" (Mickolus and Heyman, 1981: 153).

State of the Field

Since the 1960s terrorism has grasped the collective conscience of the Western industrialized democracies. Much time, money, and effort has been spent on creating a means to neutralize this threat. However, numerous scholars are critical of the limited number of undertakings to expand the understanding of this phenomena. Bell (1977) asserts that a majority of the academic studies of terrorism at that time tended to be both unsystematic and lacking in empirical vigor. This assertion tends to be echoed more recently by others who conduct research in this field (Evans, 1981: 302; Saper, 1988: 13).

However, while research in this field has been expanding over the last two decades, very little has been done to conduct a thorough and systematic categorization of these studies. Two annotated bibliographies (Norton and Greenberg, 1980; Schmid, 1984) were published to assist in this endeavor; however, it is still difficult to place studies into distinct categories. Thus, drawing from the
work of Miller (1988), the literature for this study can be divided into two major categories: traditional and behavioral. For Miller, historical and judicial/legal studies comprise the body of the traditional approach. Behavioral studies, while encompassing some of the more positive aspects of the traditional approach, place an increased emphasis on theory and statistical analysis. Thus, quantitative research has become the key avenue for investigating various aspects of the terrorist phenomenon.

The Traditional Approach

Historical Studies

Historical studies of terrorism tend to concentrate primarily on issues such as the background of various terrorist movements, their ideology and organization, organizational leadership, biographies of key terrorist leaders, and terrorist tactics. Instead of relying on empirical tests, historical studies tend to follow the case study format, concentrating on a limited number of activities and groups. Moreover, these examinations tend to be suspicious of attempts to formulate theories of political violence in general and terrorism in particular. Typical historical studies are the research of Laqueur (1977), Wilkinson (1979), Hyams (1975), Bell (1975), Clark (1978),

Like many writers in this approach, Laqueur (1977) argues that terrorism is not a relatively new phenomenon. Rather, he proposes the existence of cycles of terrorist activity. Moreover, Laqueur holds a view characteristic of many writers in this genre in that he argues that it is not only nearly impossible to establish a universal definition of terrorism but scholars should be suspicious of attempts to establish a universal theory of terrorism. Instead, Laqueur proposes that scholars and policy makers consider these phenomena on an individual case by case basis. Wilkinson (1979) continues this line of argument by suggesting that as "[t]errorism is in fact a special mode of violence" scholars should avoid "the common error to equate terrorism with guerrilla war and violence in general" (Wilkinson, 99). The logic behind this proposition is that terror is used as a "policy tool" by states and sub-state groups alike.

The perspective taken by Hyams (1975) is that terrorism should be viewed as a vehicle to bring about both political and social change. He argues that terrorism is the end result of excessive abuse of power by existing political structures as well as an intolerable social climate. To
illustrate this point Hyams applies this argument to his examination of not only the evolution of political terrorism through the nineteenth century but in his case studies of the Palestinian Liberation Organization (PLO) and the Irish Republican Army (IRA).

Bell (1975), Clark (1978), Fisk (1978) and Moodie (1978) also provide insight into these two examples of nationalist terrorist groups by focusing on the strategies and techniques of the movements. Bell (1975) tends to focus more on the respective histories of the PLO and IRA, although he does discuss some of the political and cultural motivations of these groups. He points out that members of the Palestinian fedayeen view their actions as the "only means of action available" (Bell, 68). His examination of the IRA emphasizes the need of Republican rebels to establish an "ideal" Ireland devoid of external domination in the face of individuals and institutions which may stand to gain from the status quo. Moreover, Bell stresses both the ancient cultural roots of the Republican movement as well as the highly organized and systematic acts of terror carried out by the Provisional IRA.

Like Bell, Clark (1978) examines the tradition of violence associated with the Republican movement in Northern
Ireland. He explains that the Irish, who were governed by the British until 1921, never had a military structure to utilize as an instrument of policy enforcement or national liberation. Rather, they had to rely on the tools of violence established during the era of the clan system as a means of attacking their oppressors. Moreover, because of their relative weakness compared to the British military, guerrilla activity was the only available resource to achieve strategic utility.

Moodie (1978) extends this argument in his case study of the violence in Northern Ireland during the 1970s. However, unlike Bell and Clark, Moodie concentrates on the politics of Ulster and the relationship between the British government, the Protestant majority, and the Catholic minority, and how it relates to policy decisions in both Britain and the Irish Republic. Finally, Fisk (1978) examines the effects of the political and social violence in Northern Ireland on both the British soldiers who have been sent to the region a peace keepers and Ulster's own police officers. He concludes that much of the pressure on the forces combatting Republican terrorism is the result of a lack of "a set of legally defined ground rules of operations" (Fisk, 92), which often results in a cycle of civil rights abuses and retribution by both the British
forces and Republican guerrillas.

Horchem (1986) and Pisano (1989) differ from studies of nationalist terrorist movements by focusing on those domestic terrorist groups that are influenced by Marxist-Leninist and anarchist philosophies. Horchem's (1986) examination of West Germany's Red Army Group (RAG) concentrates on the underlying anarchist beliefs of the students who became involved in both the Red Army Faction (RAF) and the Baader-Meinhof Gang. He explains that these groups, like their Third World revolutionary counterparts, adhered to the belief that force is the proper means of liberating oppressed peoples. However, the dominant philosophy espoused by student leaders like Rudi Dutshke was "to abolish the 'power of people over people'" (Horchem, 199).

Pisano (1989) utilized the same strategy in his examination of France's Action Directe. Like their West German counterparts, Action Directe combined Marxist-Leninist and anarchist beliefs into their operational doctrine. Also, similar to Horchem's study, Pisano provides a political and psychological profile of the Action Directe activist as well as the methods of conducting clandestine terrorist operations. However, Pisano's purpose was to establish a better understanding of the links between this
organization and various regional separatist movements.

The correlations between modernization and economic and political repression of indigenous populations, and the rise of Latin American guerrilla movements is the subject of investigations by Cox (1982) and Palmer (1989). Cox (1982) discusses the elements that led to the guerrilla movement against the Argentine government, as well as the socio-political consequences of the use of state terror as a means to combat a domestic insurgency in the "dirty war." Cox comments that a complete evaluation of the military government's methods of dealing with terrorists cannot be ascertained as that government, and its civilian successor, "had denied all knowledge of the matter" (Cox, 1982: 139).

Whereas Cox examines state terror as a means to repress domestic threats to the government, Palmer (1989) examines the use of terror solely as a revolutionary strategy of a historically oppressed native population. In his study of Peru's Sendero Luminoso, or Shining Path, guerrilla movement Palmer focuses on the relationship between targeted economic development and insurgency. Palmer explains that while the Sendero Luminoso, whose guiding philosophy is a version of Maoist communalism, has not been successful in destroying either the government and capitalist economic system of
Peru, it has been instrumental in bringing about change in two ways. First, the movement forced political and economic reforms within the Peruvian system. Second, it successfully politically mobilized the Indian population that had for the most part been apathetic and docile.

Historical studies, however, tend to exhibit certain weaknesses and thus leave them open for criticism by social scientists. One of the most obvious weaknesses is the lack of rigorous empirical analysis. For example, Dobson and Payne (1982) provide case studies of a variety of terrorist organizations and the role terrorism as a form of warfare in general. However, as the focus of their study is on the background and the political goals of certain groups, Dobson and Payne do not provide a conclusive empirical analysis of the effects of terrorism at the state or international level. Furthermore, historical studies are limited in their utility in the building of a general model of terrorism as they focus on a single or small number of cases.

Historical studies do, however, provide an important element of insight into some of the underlying causes of terrorism. For example, they provide an understanding of the historical relationship between an oppressed minority and their rulers. Moreover, these studies provide a major advantage for those conducting more systematic empirical
research on terrorism. Specifically, historical examinations of terrorism provide an ample amount of descriptive and historical material from which this research can draw hypothesis and theories regarding the causes of terrorism.

Judicial-Legal Studies

Judicial-legal studies examine the implications of domestic and international terrorist activity. The primary focus has been on measures that might be taken to protect diplomatic and corporate executives operating in hostile environments. However, in recent years there has been a shift of interest to the topic of how the international community can effectively combat threats to a stable international order. Strongly normative in nature, judicial-legal studies examine attempts by the international community to draft a set of mutually agreeable legal standards applicable to all nations and groups. More important to my purpose, however, is the focus of many such studies on past failures that allow us to classify, and evaluate, possible responses to international acts of terror.

Under this rubric various scenarios and solutions have been advanced as a means to counter terrorism. Green
propose the establishment of an international criminal court under the auspices of the United Nations. Blum (1986) argues that reprisals against other states that may support terrorist activities are legal, based on the concept of self defense as stated in Article 51 of the United Nations Charter. Others (Falk, 1970; Evans, 1979) disagree, arguing that reprisals by states targeted by terrorist organizations are also violating international law in that such actions are "the use of force without any recourse to diplomatic solutions" (Evans, 1979: 51).

Perhaps the most interesting debate within this approach is that proposed by Roberts (1989). Roberts suggests that as "[t]errorism is a state of war between terrorists and all Western nations, terrorists should be treated as 'soldiers' for purposes of their acts of terrorism" (1989: 376). Roberts concedes that this would lend a measure of legitimacy to the cause of the terrorist as he or she would no longer be viewed as a criminal. However, with such a standard the terrorist would be tried as a war criminal and thus be punished as such.

The issue of the role of terrorism and the legal status of terrorists is one in which there is very little consensus in academic and policy circles, let alone the international
community. Jenkins (1981) argues that all acts of terror are criminal, and Albin (1989) concurs by stating that terrorism is "a criminal activity threatening to law and order, not a threat to national security interests" (1989: 233). However, each concludes that the motives are political in nature, which in themselves gives credence to Roberts' proposition. Nonetheless, this disagreement lends to the continued debate as how to classify those who carry out acts of political terror as criminal or soldier, terrorist or freedom fighter, as well as what constitutes aggression or wars of national liberation.

Behavioral Approaches
Psychological Studies

Unlike the traditionalist approach, behavioralists are driven by the search for a general theory and the rigorous testing of models through quantitative analysis. Many of the studies that belong to this category present an interdisciplinary aspect to the study of terrorism. Nowhere is this more apparent than those which examine the psychological aspects of terrorist activity. Most of these concentrate on both the individual and groups as a means to understand what influences this form of political violence.

Clearly a majority of the psychological studies attempt
to present a profile of the terrorist in conjunction with motivating psychological factors. This in itself has helped to fuel the aforementioned debate as to what characterizes the terrorist. Hacker (1976, 1983) proposes that terrorists can be grouped into three often overlapping categories, those of criminal, crusader, and crazy. Additionally, Hacker (1983) argues that the average terrorist is motivated by both the need to seek justice and the need to overcome certain psychological shortcomings.

Rubenstein (1987) counters this argument by stating that the terrorist is "someone more like us than we ordinarily care to admit" (1987: 5), devoted to an ideal and often driven by both despair over perceived wrongs and the need for vengeance. Freedman (1983), on the other hand, hypothesizes that political terrorists are motivated by the need to reaffirm a sense of self-esteem, the depersonalization of the target, the need to establish a "relationship that otherwise could only exist in fantasy" and the belief in the "magic of violence" (1983: 5).

Other studies move beyond psychological indicators of terrorist activity to provide a profile of both the individual terrorist and the terrorist organization (Russell and Miller, 1983; Strentz, 1981). Russell and Miller, in their examination of eighteen urban guerrilla organizations,
were able to create a composite profile of the average terrorist. Similar to the later work by Rubenstein, Russell and Miller present a picture of a dispossessed intelligencia in which activists are characterized by idealistic youth, university education and an anarchist or Marxist-Leninist world view. Strentz (1981) presents a similar profile in which groups are characterized by members holding key roles, those of leader, opportunist and idealist.

The commonality among all of these psychological studies is the focus on the need to satisfy key emotional needs, such as the Freudian "conflict between the id, ego, and superego" (Stentz, 1981: 91). However, these studies tend to remain focused solely on the individual or group, and only briefly flirt with the political considerations of terrorism. While these studies do provide members of the law enforcement community with a composite personality portrait of possible terrorists, rarely, with the exception of Rubenstein, do they focus on the actual political and social factors which spur individuals to act outside the accepted norms of political activity.

Socio-Economic Studies

Socio-economic studies of terrorism tend to stand apart from other examinations of the topic in that the political
use of terror is viewed as a subset of the overall phenomenon of political violence. Additionally, they tend to utilize a cross-national comparative technique which differentiates this approach from the psychological and some policy studies. However, they are significant in that they provide researchers with many of the key social and structural factors which help to explain the causes of terrorism as well as other forms of political violence. Notable studies of political violence that provide a basic level of understanding of the root causes of terrorism include Huntington (1968), Olson (1971), Gurr (1971), Davies (1971), Russett (1971) and Muller and Seligson (1987).

Huntington (1968) argues that political violence and revolution are often the result of modernization in "traditional" or nonindustrial societies. However, it is not modernization itself which is the sole accelerator of social and political upheaval. Rather, it is the inability of existing political institutions to channel frustration and various types of political activity into conventional forms of behavior.

Olson (1971) in turn maintains that modernization often results in economic dislocation, which in turn functions as a catalyst for social and political upheaval. There are three reasons for this. First, economic change often alters
the nature of the relationship between the majority of the population and the economic system, often expanding the povertied class. Second, the stabilizing factors often associated with a traditional society such as religion, regional or village social patterns, and market structures are often destroyed through economic modernization, creating a displaced and frustrated populace (also see Popkin, 1979). Finally, economic growth often leads to increased expectations of the people, many of which cannot be met.

Gurr (1971) and Davies (1971) both examine this third phenomenon of rising expectations. Gurr's (1971) examination of the causal factors for "civil strife" led to the formulation of the concept of "relative deprivation," or the perceived difference between value capabilities and value expectations. Focusing on such variables as institutionalization, strife facilitation, regime legitimacy and coercive potential, Gurr's conclusions are based on a cross-sectional multiple regression analysis of 114 countries. However, while Gurr does assert that two-thirds of the variance in civil strife can be attributed to relative deprivation, he cannot provide a concrete measure of this psychological element.

Davies (1971) provides a similar argument with his "J-curve," in which he states that
"revolution is most likely to take place when a prolonged period of rising expectations and rising gratifications is followed by a short period of sharp reversal, during which the gap between expectations and gratifications quickly widens and becomes intolerable" (Davies, 1971: 690).

Utilizing such variables as economic indicators, demographics, military defeats and political and social repression, Davies furnishes some quantitatively measurable answers to political upheaval. Nonetheless, his study faces the same handicaps as that of Gurr. Whereas key variables such as income advancement are easily quantifiable, the psychological factors inherent to increased expectations and gratifications are much more difficult, if not impossible, to codify. Taylor (1984: 84) provides an explanation of this when he argues that psychological theories such as relative deprivation and the J-curve lack "any direct evidence concerning the relationship between perceptions, psychological processes, and political violence among individuals." Moreover, both the Gurr and Davies studies encounter a serious level of analysis problem. To be specific, although it is the individual that takes the violent action, Davies and Gurr attribute the characteristics of deprivation society as a whole.

The relationship between disparities in land ownership and political violence is the cornerstone of studies by Russett (1971) and Muller and Seligson (1987). Utilizing
multiple regression analysis in a cross-national study of 47 polities, Russett hypothesizes that political instability is often a function of concentrating arable lands into the hands of a politically powerful minority. Muller and Seligson (1987) challenge this argument by stating that it is income disparities throughout the state, not a lack of equity in rural land distribution, that acts as the most significant catalyst of political instability. This is not to say that concentration of land does not result in violence. However, "[a]grarian inequality, is relevant only to the extent that it is associated with inequality in the nationwide distribution of income" (Muller and Seligson, 1987: 443).

It must be acknowledged that although socio-economic studies attempt to explain political violence in general and often view political terrorism as a part of the larger whole, research into this phenomenon provides theoretical approaches necessary for the study of terrorism as well an understanding of some of the causal factors of this specific activity. Moreover, they emphasize quantitative research into the relationships between social, economic, and political indicators and violence. However, as terrorism in itself has developed into its own specialized area of study over the past two decades such generalized studies tend to
do little to distinguish the political use of terror from other forms of political violence. Nonetheless, they act as a sufficient starting point for understanding some of the various aspects of political terror and as a means for proposing new approaches to this phenomenon.

Policy Studies

Policy studies can be divided into two distinct categories, those of normative and empirical analysis. All tend to be theoretically driven, however quantitative studies rely on measurable variables in order to support their positions. Nonetheless, all forms of policy analysis are driven by two fundamental questions. First, which policies are the most effective; and second, if current policies are not effective, how can they be improved?

Policy research in terrorism rely heavily on "government documents on policies and decisions pertaining to means and methods adopted to control, combat, and abolish terrorism" (Miller, 1988: 65). But at its core are theoretical imperatives and reliance on modeling and quantitative methodology.

When discussing any form of international terror, policies of deterrence are often at the heart of the debate. Some believe that the most practical preventative measure is
to adopt hard-line policies that preclude negotiation, accommodation and concessions (e.g. Netanyahu, 1986; Shultz, 1986). However, many quantitative studies published since the mid-1970s have challenged the efficacy of policies grounded in deterrence theory. The findings of Jenkins, Johnson and Ronfeldt (1977), Stohl (1983) and Sandler, Tschirhart and Cauley (1983) strongly support their hypotheses that policies which preclude negotiation are not only ineffective against international acts of terror, but they also escalate needless casualties (Evans, 1979; Poe, 1988). Others have found that a more reasonable answer to the deterrence question is to establish a flexible strategy in which governments are not bound by static policies, thus providing a "balance between deterrence and saving lives" (Quainton, 1983; Kupperman and Trent, 1979).

The movement towards a systematic means of empirically testing the effectiveness of government policy has been guided by the data bases compiled by Gurr (1968), Jenkins, Johnson and Ronfeldt (1977) and Mickolus (1977). Although Gurr's (1968) "Causal Model of Civil Strife" data base was intended to focus on the variables which led to internal political violence, it furthered terrorist research in two ways. First, its cross-national approach assisted in identifying some of the factors which may result in domestic
insurgencies. Second, the analysis demonstrated that domestic terrorist campaigns are both short lived and that actors would resort to means other than terror if they proved more effective. However, Gurr (1979) provides a caveat to this conclusion when he explains that long term terrorist campaigns tend to occur in democracies, given the natural predilection of these regimes to indulge conflicting political views.

Jenkins, Johnson and Ronfeldt (1977) and Mickolus (1977) move beyond examining the origins of terrorism to its symptoms. Focusing primarily on hostage taking and kidnapping, Jenkins, Johnson and Ronfeldt (1977) found that in 77 separate events the cost-benefit ratio for the hostage taker was in the terrorist's favor in that not only was there only a 20 percent chance of apprehension but also a 50 percent chance that at least a minimum number of terrorist demands would be met. These findings were further substantiated by Aston (1986) who discovered a correlation between operational environment and the outcome for the terrorist. The ITERATE (International Terrorism: Attributes of Terrorist Events) data bases compiled by Mickolus (1977, 1988), on the other hand, has provided researchers with an in-depth data base that captures 107 different classifications of incidents as well as the
outcomes on those involved. There are two significant factors that separate the studies of Gurr and Jenkins, Johnson and Ronfeldt, and Mickolus. First, while Gurr's data set quantifies civil strife at the national level, Jenkins, Johnson and Ronfeldt and Mickolus utilize a transnational terrorism data set. Second, these studies examine the effects, as opposed to the causes, of terrorism.

Subsequent research has provided numerous findings that provide answers to some of the probing questions concerning transnational terror. Using the ITERATE data set, Hamilton and Hamilton (1983) created a time series model to test the contagion effect of terrorism. This "contagious exponential distribution model" allowed Hamilton and Hamilton to test the effects of contagion and reverse contagion based on the level of political repression a government is willing to implement to combat terrorist organizations.

From their analysis, the authors reach two tentative conclusions. First, they find that acts of terror whose outcome proved favorable for the terrorists function as a motivator for others to commit similar acts. Second, they suggest that by increasing the level of response to include internal repression, the target government is able to reverse the spread of terrorism.

Gleason (1981) utilizes Poisson modeling to study
international terrorism in Third World countries. However, like Hamilton and Hamilton (1983), Gleason concludes that such a technique does not permit worldwide generalizations on terror (1981: 253).

Wright (1981) utilizes multivariate time series analysis as a means to measure the processes of conflict between the IRA and the British government in order to create a "holistic model" for internal wars. However, he explains that such a model is often difficult to create without measuring for social and political structural factors which may act as the source of conflict.

The subject of substituting one act of terror for another is the basis for two studies by Im, Cauley and Sandler (1987) and Enders and Sandler (1993). Im, Cauley and Sandler (1987) employ a time series spectral analysis model to determine whether acts of terror function in cycles and substitution occurs during this cycle. Limiting their data to hostage-taking events, the authors find that over time terrorists will substitute one act for another if a target government successfully employs anti-terror countermeasures. For example, if airport security measures inhibit terrorists' ability to seize an aircraft and take hostages, they may then turn to other forms of political violence, such as bombings or assassinations. Im, Cauley
and Sanders also conclude that substitution "occurs only between very short-run cycles in the two to three month range" and that the "absence of much long-run substitution may be due to the wider variety of substitutes available over the long run" (Im, Cauley and Sandler, 1987: 251).

Building on this earlier study, Enders and Sandler (1993) employ vector-autoregression-intervention models to measure the efficacy of antiterrorist policies during the Carter and Reagan administrations. Through their analysis, Enders and Sandler conclude that key policy changes, such as the fortification of embassies and placing metal detectors in airports, were successful in deterring certain types of terrorist activities. However, Enders and Sandler explain that this led to an increase in other forms of terrorist activities. In essence, the prevention of one act often channels activities into another area. Moreover, while the authors demonstrate the initial effectiveness of these policies, they clarify the interrelationship between policy initiatives and outcomes as well as changes in strategy employed by terrorist organizations.

Summary and Conclusions

This section has surveyed the state of the field of terrorist research and the approaches and techniques
employed. Clearly, for the political scientist, quantitative analyses proves to be the preferable method through which the hypothesized relationships between the causes and effects of various levels of political violence, including terrorism, may be tested. Moreover, as will be discussed in the next chapter, quantitative methods provide researchers with the means of conducting statistical tests to evaluate the effectiveness of government reactions to specific acts of terror, specifically hijacking, kidnapping, and the taking of hostages. However, the studies discussed here also illustrate the difficulty faced by researchers in creating a general model to apply to either terrorism in general or specific categories of terrorism.
CHAPTER TWO

HOSTAGE POLICY AND RESPONSE

Acts of political terror cover a wide spectrum of activities that range from bombings to assassinations. One of the most effective and often used tools in the repertoire of the terrorist is the seizing of hostages. Hostage taking, as defined by the 1979 International Convention Against the Taking of Hostages, is

"the seizing or detaining and threatening to kill, injure, or continue to detain a person in order to compel a third party to do or abstain from doing any act as an explicit or implicit condition for the release of the seized or detained person" (U.S. Department of State, 1995: 777).

The act of taking hostages can be subdivided into three categories: kidnapping, skyjacking and barricade hostage events. Like other acts of terror, hostage taking is meant to influence a specific audience, such as a government or national population.

What separates hostage events from other acts of terror is that the target government is most often faced with a moral dilemma: should it negotiate in order to save the lives of innocent people, or should it refuse to negotiate in an effort to deter future acts of terror and maintain its
credibility? Terrorists, on the other hand, seem to hold all of the cards. If they negotiate they are sure to receive at least some of their demands (Jenkins, Johnson and Ronfeldt, 1977), and, if the terrorists kill the hostages, they increase their credibility as a viable threat.

In this chapter I will discuss those studies that examine hostage taking as a means to construct a better theoretical understanding of terrorism. Special attention will be paid to those studies that examine the effectiveness of various government responses toward these acts.

Importance of Hostage Events

A pivotal question underlying this research is, "why is it so important to study hostage crises and government responses to these events?" Aston (1986) proposes that hostage events are important in that they "are political crises requiring political solutions" (1986: 57). Others (Bassiouni, 1983; Crenshaw, 1983; Friedland, 1983; Aston, 1986; Schlagheck, 1988; Johns, 1988; Vetter and Perlstein, 1991) view hostage crises as a means to better understand the underlying causes or motives of terrorist actions. Thus, the careful analysis of hostage events may in themselves prove useful to understanding terrorism in general.
Bassiouni (1983) suggests that acts of political terror are driven by the need to publicize a political or social agenda. Media coverage of a terrorist event increases public awareness of the nature, grievances and goals of the group. Schlagheck (1988) concurs with Bassiouni and explains that by providing coverage of a terrorist event, the media plays an important, albeit often unwilling, role in transmitting the terrorists' message to a broader audience. She argues that terrorist motives are based on the "three p's of terrorism," consisting of publicity, propaganda and psychological warfare. Each is necessary for the terrorist to inform and influence a much wider audience. Through "free" publicity provided by the media, the terrorist has the opportunity to influence public opinion and "draw attention to his cause" (1988: 3).

Johns (1988) examines the motivations of the terrorist by focusing on the symbolic nature of terrorist acts in general and the taking of hostages in particular. He argues that in any act of political terror the victim is merely a symbol of the target regime and, by attacking the individual, the terrorist attacks the state by proxy. The symbolic nature of this action demonstrates the inability of the target to protect its citizens either at home or abroad.

However, "symbol bashing" is not the only reason for
hostage taking. Johns states that by taking hostages, terrorists force the target regime to consider the political ramifications of its response. If the target chooses to make concessions to the terrorists, it faces the possibility of losing stature and credibility in the international community as well as at home. By imposing higher levels of domestic repression to combat internal threats, governments increase popular resentment and may even threaten basic human rights. In liberal democracies, the symbolic underpinnings of the established social order and constitutional system of government are undermined by increased repression and the placing of limits on the political liberties of the population.

Moreover, acts of terror may elicit from the population a belief that the existing social order is collapsing and that the government is no longer capable of protecting its citizens. Johns further argues that acts of political terror and the granting of concessions by the target regime to terrorists often will result in the loss of domestic legitimacy for the existing regime and social order.

Aston (1986) concurs with the "hostage as symbol" concept, but applies a more utilitarian approach to the hostage takers' motivations. Although the hostage is a
"mere symbol" of the state, "it is more cost effective to attack a symbol of the system than to engage in a larger scale revolutionary war for which [the terrorist] may not be structurally or logistically equipped" (1986: 60). Aston also suggests that the actions of the state are often constrained by constitutional parameters in that national leaders "may not possess sole decision-making authority and may have to share decision-making with other actors" (ibid., 61). This concept is important when trying to understand the responses taken by states given their political attributes, especially if the state is a liberal democracy that is responsive to public opinion. If this is the case, Aston argues that the state is often limited in its choice of policy responses.

On the other hand, Friedland (1983) suggests that the primary goal of hostage takers is not symbol bashing. Rather, the terrorists' objective is to "inflict upon governments the political damage they would likely incur by publicly negotiating with terrorists and by yielding to ransom demands, even if the ransom coerced is low in quality and quantity" (1983: 205). Crenshaw (1983) agrees and proposes that terrorists will often take hostages more for recognition and to display a measure of political power and tactical strength than to simply gain concessions. Crenshaw
thus argues that the goal of the terrorist is "to retain mastery of the situation and to appear victorious at the end, [and] to gain a better power position for the next round" (1983: 26). She suggests that even when concessions are not met terrorists may seize hostages as a means of attracting attention to their cause and "to demonstrate political power" as opposed to gaining ransom alone (ibid.).

Vetter and Perlstein (1991), although agreeing with the general hypothesis of the symbolic nature of terrorism, argue that the hostage has a distinct intrinsic value. Like any "bargaining chip," a hostage may be exchanged for money, political concessions, colleagues held prisoner or for safe passage to freedom.

Consequently, governments find themselves faced with conflicting values and dilemmas when trying to formulate an effective response to politically-motivated hostage events. Researchers who examine the efficacy of such policies often find themselves asking the same questions as the policy makers. How does a government implement a policy that will not generate negative domestic outcomes? What will be the international repercussions of this policy? What value, if any, can be placed on human life? Will this policy reach the ultimate goal of deterring future acts of terror? These questions form the philosophical foundation of arguments
concerning the actions taken by governments when confronting a hostage crisis.

Deterrence and Response: Policy Approaches

Most nations' anti- and counterterror (prevention and response) policies seek to deter terrorist activities. Such policies "are generally a reflection of a greater value placed on the maintenance of social order that on one individual...[and] that future lives are saved by standing firm now" (Crelinsten and Szabo, 1979: 35). By declaring a policy of no concessions, states attempt to deter not only the initial act of terror but the so-called "contagion effect"¹ that may result from partial or total acquiescence to demands of terrorists (Kupperman and Trent, 1979: 113).

Mickolus (1977: 222) poses four key questions to policy makers and students of terrorist and hostage response policy. First, can terrorists be discouraged from carrying out subsequent attacks if they cannot achieve their objectives? Second, will making concessions to terrorists result in an increase in similar attacks by other groups? Third, what negotiation strategy should be used when

¹According to Hacker (1981), contagion of terror is the result of actors mimicking the activities of others based on a variety of factors, such as success rate, media attention and the societal impact of the event.
operating within the framework of a no concessions policy? And finally, "are there any constraints or patterns of behavior for individuals faced with bargaining with a no concessions policy?" (1977: 222). These questions are the foundation for any terrorist policy based on deterrence.

Huth and Russett (1990: 471) explain that deterrence is the attempt by one group to "prevent, by threat of retaliatory sanction or contingent award" another group from seeking a "specific course of action in pursuit of a policy objective." In other words, the goal of a state's policy is to make the very cost of the act high enough to ensure that adversaries would be unwilling to assume certain risks.

Evans (1977) argues that deterrence is effective only when the costs and risks assumed by potential adversaries are greater than the benefits enjoyed. He supports this approach by employing the model derived by George and Smoke. Simply stated, \[ C \text{ (costs)} + R \text{ (risks)} > B \text{ (benefits)} \]. Based on this simple model it is hypothesized that there are two ways to achieve deterrence. First, the state may employ "coercive diplomacy," or threats of punishment to increase the cost and risk side of the equation. The alternative approach seeks to decrease the level of rewards or benefits gained through a given action. The result is that "the adversary [is] deterred by denial" (1977: 106).
Enders and Sandler (1993) support the second approach based on a key theoretical consideration, that of the rational actor. They argue that terrorists "attempt to maximize a shared goal subject to a resource constraint...[and that] this shared goal may be denoted as utility or expected utility derived from the consumption of basic commodities" (1993: 830). Drawing from this proposition, Enders and Sandler suggest that when governments enact policies that succeed in curbing specific activities, terrorists will "substitute" certain acts to gain the desired basic commodities, be they policy changes or media attention. Therefore, when the menu of possible methods is altered or shortened, terrorists will seek alternative approaches to achieve the desired level of returns.

Lebow and Stein (1989), on the other hand, conclude that deterrence theories, be they "deductive" or "rational" in nature, suffer from serious theoretical shortcomings which in turn produce flaws in policy. They argue that deductive theories fail to take into account such factors as the probability of success of each actor's calculus of action, whereas rational deterrence theory "acknowledges that [an actor's] preferences or estimates change but says
nothing about how, when and why this occurs" (1989: 215). Moreover, Lebow and Stein argue that the essential weakness of deterrence theories is not that "they contain idealizations but that these idealizations are their fundamental assumptions" (ibid, 224).²

Regardless of the critiques of current deterrence theory, a body of work has been produced that argues in favor of adopting a variety of means to deter acts of terror. Green (1974), Kos-Rabcwicz-Zubkowski (1978), Albin (1989), and Shukri (1991) propose increasing the risk of criminal prosecution for involvement in terrorist activities. Bell (1975), Jenkins (1989) and Turner (1990) suggest the use of economic sanctions and the severing of diplomatic relations, particularly against states who regularly assist terrorist groups.

Others (Kissinger, 1975; Crenshaw, 1983; Friedland, 1983; Netanyahu, 1986; Wilkinson, 1986; Cowen, 1991) argue that deterrence is achieved only when the target state strictly adheres to a hard-line policy of no concessions and relies on the use of force as a viable alternative. The

²The four assumptions of deterrence theory focus on four primary attributes of key actors: (1) they are instrumentally rational; (2) they are risk-prone gain maximizers; (3) they act free of domestic constraints; and (4) are able to correctly identify themselves as defenders or challengers (Lebow and Stein, 1989: 223).
efficacy of these approaches, specifically the hard-line approach, has been at the core of the debate concerning which policy is the most practical to pursue.

These opposing philosophies of deterrence and response are behind the conflicting policy alternatives available to governments. Wilkinson (1986) addresses this issue by proposing five separate policy approaches. These are submission, counter-terror and ruthless repression, counter-terror against foreign based terrorists plus democracy and the soft- and hard-line approaches. Submission occurs when a government no longer possesses the means of providing internal defense and utilizing the legitimate tools of law and order. The result, as evidenced in Wilkinson's example of Lebanon, is the collapse of the government and a society faced with "fratricidal self-destruction" (1986: 10).

The extreme response to terror is counter-terror and ruthless repression. However, Wilkinson advises that this is not a realistic strategy for liberal democracies, as it relies predominantly on state terror. He offers the Israeli model that employs counter-terror against foreign based terrorists while still embracing liberal democracy as an alternative. Although Wilkinson praises the Israeli government for maintaining a democratic state, he is highly critical of the methods employed by the government on
practical and moral grounds. In turn, he questions the political and moral justifications of governments that embrace principles of democracy but pursue policies that harm innocent bystanders. Moreover, Wilkinson disagrees with the Israeli policy that dictates who is to be designated as an enemy of the state and subsequently eliminated.

Wilkinson's soft-line approach examines the efficacy of granting concessions to hostage takers as opposed to remaining inflexible and the possible loss of the hostages' lives. Drawing from the French experience with the Japanese United Red Army (URA), Wilkinson declares that this approach is a "policy of capitulation" (1986: 14). He explains that when French officials chose to follow this strategy and made concessions to the terrorists, they ignored the viability of more hard-line options that included the use of force. Wilkinson states that although the French hostages were eventually released, the granting of concessions to the terrorists generated two negative results. First, it ultimately led to an increase in hostage taking by various groups and "further humiliating defeats" for the French government. Second, the French government and the URA both learned that "in terrorism, nothing succeeds like success" (1986: 15).
The final alternative proposed by Wilkinson is the hard-line approach. He concludes that this strategy is the most desirable as it is the

"combining (of) harsh and effective temporary measures to isolate and eliminate terrorist cells, their leaders and their logistical support, with the maintenance of liberal democracy, a vigorous life of participation, and debate and reform within the framework of the law. The keynote of the approach is not panic, repression, and over reaction, which in any case plays into the hands of terrorists, but a consistent policy of maximizing the risk of punishment run by terrorist and minimizing their possible rewards" (1986: 15).

This approach not only fits the parameters established by deterrence theorists, but it has been embraced by most liberal democracies as well. However, there are two shortcomings inherent to Wilkinson's overall thesis. First, while he categorizes the strategies in five groups, Wilkinson does not address the possibility that some of the strategies could be used in concert with each other. Thus, the potential foreign policy reactions to terrorism are much greater in number than Wilkinson's typology suggests.

The second shortcoming pertains to the Israeli model. Although Wilkinson did discuss some of the less desirable outcomes of such a strategy, he failed to discuss the most important negative consequence of this approach: the regression into state terror. Although the Palestinian intifada had yet to reach significant levels at the time of
his writing, elements of the Israeli internal security apparatus began to be used in increasing numbers to brutally crush internal dissent by Palestinian activists. Thus it would seem that this could be classified as a possible permutation of the state terror approach.

Nonetheless, numerous countries of different types follow Wilkinson's hard-line response strategy. Often, this approach has taken the form of "no concessions, no negotiations" policy. Perhaps one of the most adamant governments in this respect is that of the United States. Simply stated, U.S. policy holds that:

"The United States government will make no concessions to terrorists holding official or private U.S. citizens hostage. It will not pay ransom, release prisoners, change its policies, or agree to other acts that might encourage additional terrorism. At the same time, the United States will use every appropriate resource to gain the safe return of American citizens held hostage by terrorists" (U.S. Department of State, 1995: 777).

Bremer (1988) supports this approach and suggests that successful deterrence relies on the strict adherence by governments to a policy of firmness towards terrorists. Similar to the conclusions drawn by Wilkinson, Bremer suggests that "giving in to terrorist demands will only breed future demands, demands which are likely to be greater than those of today" (1988: 2).

Kissinger's (1975) support of this approach is based on
the state-centric approach of classical realist theory. He argues that negotiation with an enemy, such as terrorists, exposes weaknesses that can be exploited. By refusing to negotiate, the state avoids future risks of having hostages taken and the probability that terrorist demands will also increase. In essence, by refusing to negotiate, the state avoids increasing the tolerable threshold of pain brought by terrorist acts. According to Kissinger, the refusal to negotiate forces terrorists to understand the futility of their actions. He further argues that should "terrorist groups get the impression that they can force negotiation with the [state] and an acquiescence in their demands, then we save lives in one place at the risk of hundreds of lives everywhere else" (1974: 408). In essence, it is far better to risk a small number of lives in the present than face recurring threats in the future.

Studies of the Efficacy of Countries' Response

The policy approaches discussed above have given rise to a small but growing body of work examining the viability and efficacy of various hostage response policies, especially the hard-line approach. Conducting a quantitative analysis of governments' response to
international hostage events between 1968 and 1977, Mickolus (1977) finds that "the answer is unclear" as to whether or not the hard-line response advocated by the United States proved to be an effective deterrent (1977: 225). He comments further that although the United States government has rarely been the direct target of explicit ransom demands or the release of prisoners, U.S. citizens since the mid- to late-1960s have been the most popular targets of hostage takers. In those cases, the U.S. government has predominantly been the third party in terrorist demands.

Mickolus suggests three reasons for this. First, as evidenced in numerous Latin American cases, hostage takers believe that direct negotiations with corporations prove more fruitful than with the American government. Second, the target government may be more willing to negotiate for the release of a U.S. citizen than one of its own. Finally, United States often applies political pressure on the target government to secure the release of the hostage while at the same time avoiding the appearance of giving into the terrorists' demands.

Evans (1977, 1978, 1979) takes a much firmer position than Mickolus by stating that "a comparison between the United States with its hard line policy and other countries with soft line policies indicates that American policy did
not deter" (1977: 108). Critical of the hard line approach, Evans explains that there is a single basic assumption that guides such policies: "(P)olitical kidnappings are motivated by the desire of terrorist groups to secure monetary ransoms and/or to release prisoners" (1979: 81). This assumption presumes that if policy makers give into the demands of the hostage taker they establish a precedent for future events.

Evans argues that policy makers in the United States and other countries have made the mistake of not understanding the differences between politically motivated kidnappings or hostage seizures and domestic criminal acts. By doing such, governmental leaders ignore the political goals and motivations of these actors, such as ransom and release of hostages, publicity, harassment, the attempt to polarize society, and the aggravation of state-to-state relations. Evans concludes that this "depoliticization" of policy is in essence the underlying weakness of the hard line approach.

In order for hostage response policies to be effective, Evans suggests that governments should "repoliticize" their approaches, adapting to the political motivations of terrorism. Evans further implores leaders to "realize that kidnapping cannot be deterred simply by refusing to make
concessions or to negotiate [lest] the terrorists argue to world public opinion, with some apparent success, that the death of any hostage is the fault of the government because it failed to be reasonable" (1977: 116). By understanding the motivations of political kidnappings, governments can influence the outcome and reduce the gains made by the terrorists.

Evans bases his conclusions on the results of a comparative study of the response policies of Japan, West Germany and the United States between 1970 and 1975. By examining the hostage response policies of three "large, advanced, industrial societies [that] are linked together by military and political alliances" as his independent variable, Evans sought to gain some insight into the debate on the efficacy of the soft- versus hard-line approaches. He explains that unlike Japan and West Germany, the United States eschewed the soft-line or accommodative approach in favor of a strict hard-line response.

By choosing the number of hostage events in each country as the dependent variable, Evans sought to determine the effectiveness of each policy's deterrent effect. In order to be included as a hostage event, a case had to meet three requirements. First, each of the countries in the study had to be a direct target of terrorist demands.
Second, kidnappings or the seizing of hostages had to be politically motivated, not the result of a domestic criminal act. Finally, hostage situations had to be international in nature. By this it is meant that the nationals of the examined country had to be abducted overseas, the event had to have an international perspective or the hostages had to be transported across national boundaries.

Evans' findings prove interesting. Between April 1, 1970, and March 31, 1975, West Germany, a country with a relatively "soft" policy toward terrorism, experienced a total of twelve hostage events, two of which were termed "private kidnappings," i.e. either private institutions met the terrorists' demands or non-government personnel were taken hostage. Japan, another country taking a concessionary approach, experienced only three hostage events between March 12, 1970, and March 11, 1975. The United States, on the other hand, tended to take a "hard line" stance against terrorism and was subject to a total of 34 events, 13 of which were private.

These findings support Evans' hypothesis that hard-line approaches do little to deter hostage taking. He argues that the results of his study conflict with the underlying logic of the hard-line approach "to such a degree that this logic must be seriously questioned" (1979: 88).
Although Evans admits that his study may be challenged for a number of legitimate reasons, it has drawn a number of sharp critiques that are rooted in conflicting political philosophies, most notably by Crenshaw (1983). Although Crenshaw agrees with Evans and admits that "little positive correlation is found between government concessions and the vulnerability to future terrorism" (1983: 10), she is philosophically at odds with his findings. She responds to his findings on the limited efficacy of the hard-line approach by stating that "a widely accepted if unproven 'lesson' of terrorism is that granting terrorist demands encourages more terrorism" (ibid., 11). Moreover, Evans' findings do not explain why some countries returned to the hard-line approach, as did West Germany in 1975.

Conflicting philosophies are only one source of the critique of the Evans study. A second critique can be directed towards the narrow limits of the data set by focusing on only three countries. By examining the results of only three "western" liberal democracies, Evans' findings appear to be somewhat subjective as he ignores the policies of totalitarian regimes. Although Evans argues in a subsequent publication of this study (1979) that the approach adopted by the United States led to a higher number of U.S. citizens taken hostage, his study evades possibly
contradictory findings that might have resulted from including more nations in the data set. Had he expanded his survey to include other nations, including those in the Soviet bloc, his findings may have been different. Moreover, as mentioned above, by limiting his data set to only a five-year period he misses the opportunity to test the effect of the return to hard-line policies.

Evans' conclusion that the Japanese and West German policies resulted in fewer hostage events does not answer Crenshaw's challenge. As previously discussed, Wilkinson argues that the French policy of accommodating the Japanese United Red Army not only increased the URA's success rate, but also established an environment suitable for the contagion effect. Based on the International Terrorism: Attributes of Terrorist Events (ITERATE) III data set, between 1979 and 1987, France witnessed 16 hostage events that resulted in the taking of 901 hostages. In 45 percent of those events at least some, if not all, of the terrorists' demands were met.

The Evans studies, in spite of their weaknesses, advance two valid questions that must be addressed by researchers attempting to build an explanatory model of terrorism. First, is there a relationship between negotiations or concessions and deterrence? Second, is
there a correlation between the response of the target and the number of hostages killed? Various researchers (Sandler, Tschirhart and Cauley, 1983; Poe, 1988; Brophy-Bauerman and Conybeare, 1994) attempt to provide further insight into these questions.

Sandler, Tschirhart and Cauley (1983) utilize multiple rational actor models to explain the negotiation process between democratic governments and terrorists. However, they explain that these models are only effective in cases "where a terrorist group seizes hostages or property and holds them at known or unknown locations for the purpose of making demands, released prisoners, or the airing of propaganda statements" (Sandler, Tschirhart and Cauley, 1983: 37). They do find, however, that a "no-negotiations strategy is not the best in all situations" and that the "efficacy of this strategy depends on the risk attitudes of the terrorists and appears best for risk-preferring groups" (ibid., 52).

Poe (1988), in his examination of governments' response to hostage events, examines the issue without using national policy as an independent variable for measuring deterrence. By using the ITERATE II data set he measures government response operationalized on a five-point scale. The rationale for this is two-fold. First, "the rhetoric of
policy makers does not necessarily make the transition into action" (1988: 28). Second, there is often a lack of clarity in the stated goals of the government. In other words, what is the government attempting to accomplish through its policy?

By using multivariate regression analysis, Poe tests the relationship between the level of response to overall deterrence and the number of casualties resulting from this approach. His findings tend to be similar to Evans' by questioning the efficacy of hard-line policies. However, a clarification must be made. Although Poe finds that national policies sometimes appear quite firm in leaders' rhetoric, in reality governments demonstrate a measure of flexibility. Specifically, "[a]s the number of events with which nations are confronted by demands increase, they tended to vary their response so that their mean response strengths gravitated toward the middle of the range" (1988: 29).

By analyzing the responses of all nations in the data set, Poe's findings support those of Evans. First, Poe demonstrates a relationship between a reliance on the "no

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3This scale consists of capitulation, stalling with eventual compromise on demands, the "Bangkok solution," no compromise or shoot-outs with the terrorists and a government attempt to doublecross the terrorists.
concessions" response by target nations and greater probability of a higher death rate for hostages. High death rates occur with an even greater probability when force is used. Poe adds a caveat to his findings by stating that the use of force is "not a sufficient condition for a relatively high death rate in hostage situations" (1988: 38). Another important result of this study is that there "is little reliable evidence that terrorists are deterred by the implementation of a hard line response" (ibid., 37). Not only does this seriously question current policy pronouncements by numerous governments, but it also provides increased significance to the critiques of rational deterrence theory (and their subsequent policies) as outlined by Lebow and Stein.

The Poe study provides some interesting insights into the efficacy, or lack thereof, of adhering to a hard line policy. Moreover, by using all available nations that were targets of hostage events as his level of analysis, Poe demonstrates two unique results. First, governments tend to not only maintain a level of flexibility in their policy responses, regardless of the rhetoric of political leaders, and that this flexibility resulted in a significantly lower death rate for all involved. Second, national attributes such as levels of development and region are a factor in the
occurrence of hostage events.

Perhaps one of the most significant studies of governments' response to terrorism was conducted by Brophy-Bauerman and Conybeare (1994). Brophy-Bauerman and Conybeare examine "the merits of retaliation in order to maintain a credible deterrent to future attacks" (Brophy-Bauerman and Conybeare, 1994: 196). To test the efficacy of response policies, the authors use Box-Jenkins ARIMA techniques to test whether or not there exists "a 'natural' rate or process of terrorist attacks and that terrorists have rational expectation about the retaliation that they will receive" (ibid., 197). Using Israel as the subject, the authors examine the effect of retaliation on the natural rate of terrorism over time. In turn, they determine whether or not retaliation proves useful as a deterrent against future terrorist attacks.

Brophy-Bauerman and Conybeare find that, if it is to be assumed that terrorists are rational actors, the effect of unexpectedly severe retaliation by the target government dissipates over time. They explain that this is the result of the terrorists adapting their strategies to reflect an expectation of increasingly severe responses to future acts. With the exception of the retaliation for the murder of Israeli athletes during the 1972 Olympics, the authors find
that retaliation does not provide a long-term deterrent effect. Rather, retaliation acts as a temporary disruption and momentary displacement in the natural cycle of a terrorist campaign. Moreover, Brophy-Bauerman and Conybeare find that Israel's 1972 response "raised the expected level of retaliation and reduced the impact of any future retaliations," and that "the debate over the deterrence value of retaliation against terrorists seems to be largely irrelevant in the long term" (Brophy-Bauerman and Conybeare, 1994: 209).

Summary and Conclusion

The literature surveyed in this chapter, like much of the literature relating to terrorism, describes the methods used to generate a paradigm to explain terrorism. The studies of hostage taking, however, grant researchers greater insight of terrorist behavior and the efficacy of governments' policy responses to hostage events. Hostage-based research also illuminates the difficulties faced by governments when their responses are guided, or limited, by certain ideological approaches.

The Poe study, which was discussed earlier in this chapter, provides the basis for my study. Although significant in its findings, Poe's research is limited by a
relatively small sample of cases as the data was derived from events occurring between 1968 and 1977. However, the results may prove different with a greater number of cases. Therefore, this study will reexamine Poe's findings by utilizing a more robust data set that contains all relevant hostage event cases between 1968 and 1987.

In the next chapter I will discuss the aspects of building a model of governments' response to hostage events. Specifically, I will discuss the data set utilized for the study and the operationalization of the dependent and independent variables.
CHAPTER THREE

BUILDING A MODEL OF GOVERNMENTS' RESPONSE TO HOSTAGE TAKING

To examine the effects of the hard-line response in hostage events, and their efficacy, an empirical analysis of the problem will be conducted. The research design of this study will be guided by three factors. First, I will explain the data set utilized for this study and the rationale for constructing multivariate models. Second, I will discuss the methodology that will be used to determine whether the hypothesized relationships between the dependent and independent variables exist. Finally, I will identify and operationalize those dependent and independent variables as part of a brief explanation of the models presented in this study.

Data

The data used for this study are derived from three data sets: ITERATE II (Mickolus, 1977), ITERATE III (Mickolus, et. al., 1989) and a data set created by Poe and Tate (1994). Project ITERATE "is an attempt to quantify data on the characteristics of transnational terrorist
groups, their activities which have an international impact, and the environment in which they operate" (Mickolus, et al., 1989). ITERATE II catalogue all transnational terrorist events between 1968 and 1977, whereas the ITERATE III data set is comprised of events that occurred between 1978 and 1988.

Each of the ITERATE data sets contains four data sub-files. These are the common file, which consists of measures that are consistent throughout the data set; the fate file, which catalogue the fate of the terrorists; and the highjacking and hostage files, which examine each of these specific event types. For this study, however, only certain variables will be used. In both of the ITERATE data sets, the level of analysis is the transnational terrorist event. In this study, particular attention will be paid to those events classified as transnational hostage events, including kidnapping and the highjacking of aircraft or nonaerial means of transportation. By combining ITERATE II and ITERATE III, this study takes advantage of a more robust data set with an increased number of cases to test the consequences of the various levels of response to hostage events.

Additional variables will also be taken from the data set constructed by Poe and Tate (1994). Although originally
created to examine internal political repression, or state terror, this data set provides several variables that may explain how governments respond to hostage events. These variables include levels of economic development, regime type and the influence of British colonialism on a country's political culture.

Methodology

The methodology for testing the relationships between the variables will be ordinary least squares (OLS) bivariate and multiple regression analysis. There are two reasons for this. First, OLS provides researchers the means to examine and explain those factors that influence the dependent variable. Second, multivariate regression analysis allows "the effect of a particular independent variable (to be made) more certain, for the possibility of distorting influences from the other independent variables is removed" (Lewis-Beck, 1980: 47). This technique provides a means to test a hypothesized relationship between two or more variables in a manner that suggests that the "dependent variable is seen as a linear function" of the independent variables (ibid., 48).
Event Frequency

Operationalizing the Dependent Variable

The first dependent variable to be tested is event frequency. This variable is chosen given the number of governments that adhere to a policy of not negotiating with hostage-takers or rely on the use of force as a response to terrorism. As stated in Chapter Two, governments establish these policies based on the assumption that the hard-line response functions as a deterrent.

To operationalize this variable only those events in the ITERATE data sets that involved the taking of hostages, i.e. kidnapping, barricade and hostage seizures, aerial hijacking and the hijacking of nonaerial means of transportation, were selected. Furthermore, by combining the two ITERATE data sets, this study was provided with a 20-year time period that consists of 7,300 days, much larger than any data set used in a study of this kind. Within this time period there were 253 hostage events with a recorded outcome. Of these cases, 71 countries were the target of terrorist demands with an event frequency that ranged from one event per country, such as for Kenya, to 24 for Israel. Therefore, consistent with the theoretical literature on deterrence, it is hypothesized that the stronger the level of response, the fewer the number of times that a country
will be the target of hostage takers.

Operationalizing the Independent Variables
Response Strength

There are two reasons for selecting response strength as the primary independent variable of interest. The first is based on the philosophical and theoretical arguments advanced by supporters of the hard-line response to terrorism (Kissinger, 1975; Crelinsten and Szabo, 1979; Kupperman and Trent, 1979; Crenshaw, 1983; Wilkinson, 1986; Bremer, 1988; and Owen, 1991). Each proposes that by following the hard-line response strategy, governments can in fact deter future acts of terror. The second reason is based on previous empirical research on the deterrent effect of the hard-line approach (Evans, 1977, 1978, 1979; Mickolus, 1979; Sander, Tschirhart and Cauley, 1983; Poe, 1988; and Brophy-Bauerman and Conybeare, 1994). These studies have either produced inconclusive results (Mickolus, 1979) or found that hard-line responses have a questionable deterrent effect (Evans, 1977, 1978, 1979; Poe, 1988).

To determine the level of response by the target government from the weakest to the strongest levels, response strength is coded as follows:

1. Capitulation;
2. Bangkok solution;
3. Stalling, with no compromise on demands;
4. No compromise, no shootout with terrorists;
5. Government doublecross
6. Massive nationwide search for terrorists, with no compromise or capitulation by government regarding terrorist demands; and
7. Shootout with terrorists.

This variable will be further modified to test the soft- versus hard-line response on hostage taking by combining some of the values. The reason for the different coding of the response variable is simple. In its original coding, response strength tests for the deterrent effect of the various levels of government response. Therefore, in the second coding, an effort is made to examine the event outcome as a result of government response, from the viewpoint of the hostage taker. Once recoded, the response

'The Bangkok solution refers to the agreement made between the Thai government and four members of the Palestinian terrorist organization Black September, who had seized the Israeli embassy in Bangkok on December 28, 1972. The solution allowed for the safe passage from the scene for the Black Septembrisists in return for the safe release of the hostages and the dropping of all demands. Mickolus (1989) states that the Bangkok solution "has subsequently been used successfully as a precedent for other negotiation situations."
variable will have three categories. They are:

1. Capitulation;
2. A clear willingness to compromise (Stalling and Bangkok solution); and
3. No concessions (Categories 4 through 7).

Level of Development and Economic Growth

Although the effect of governments' response to hostage events is the primary aspect of this study, it is necessary to control the effects of other variables that might be important in explaining terrorism. Two of these variables are the target nation's level of development, as measured by per capita gross national product (GNP) and economic growth rate, or the percent of change in per capita GNP.

Studies of the effects of economic development on political stability and terrorism in general have resulted in contradictory answers to this question. Muller, Dietz and Finkel (1991: 1262) argue that "almost all of the major insurgencies in the second half of the twentieth century have taken place in the less-developed countries of the Third World, where objective levels of deprivation are much higher than in advanced industrialized countries."

Huntington (1991: 59) argues that in some cases rapid economic growth leads to increased political instability
which, in turn, forces authoritarian regimes to either liberalize or increase internal repression. Poe and Tate (1994: 857) concur, stating that "rapid economic growth is most likely to be a destabilizing force that will, in fact, increase instability."

One would expect that an increase in a country's level of economic development would in turn be reflected in personal income. As personal income increases, ceterus paribus, more goods and services are afforded and therefore personal needs are met. This, in turn, should decrease the level of hostility toward the ancien regime and the need to resort to political violence. Davies (1971) and Gurr (1968, 1970), however, argue that if individual gains from an expanding economy are less than what is expected, dissatisfaction and various levels of political violence may occur. Furthermore, Sivard (1985: 26) states that as a result of the rapid economic development of the Third World since 1960, "the needs of society, propelled by rapid economic growth, have increased faster than the resources and the distribution of resources available to them."

To operationalize the level of economic development for a given country, per capita GNP is used. One difficulty with using GNP to measure economic development is that it
does not provide insight into the disparities of income levels between a country's wealthy elite and its povertied class. Moreover, attempts to compensate for income disparities have not captured development measures for all countries (Sigelman and Simpson, 1977; Muller and Mitchell, 1987). Nonetheless, a variable to measure per capita GNP estimates will be created from data derived from the human rights data set created by Poe and Tate (1994), World Bank data, Sivard (1985) and the United States Agency for Arms Control and Disarmaments (1978, 1979, 1988, 1995).

To create a variable that measures the economic growth rate, or percent of change in per capita GNP, the structural basis of the data had to be taken into account. As the data used for this study cover a 20-year time period, three years will be used as benchmarks to pinpoint the level of economic growth along the data's time continuum: 1967, 1977 and 1987. The reason these three years were chosen is that they comprise a bridge that spans the ITERATE II and ITERATE III data sets. An aggregate measure of the economic growth rate is then taken from an average of the per capita GNP for each of these three years.

To determine the overall economic growth rate, a measurement had to be taken for each country based on its per capita GNP. To obtain this measurement, a formula used
by the United States Bureau of Labor Statistics to calculate change in the consumer price index (CPI) was used. This measurement was based on the following formula:

\[ \frac{PCGNP_i - PCGNP_{i-1}}{PCGNP_i} \times 100 \]

where:

PCGNP\(_i\) = percent change in the GNP for the older time period of the sample; and

PCGNP\(_{\text{new}}\) = percent change in GNP in the most recent time period of the sample; i.e.

\[ \frac{1977 - 1967(100)}{1967} \]

To prove a more accurate measure, the per capita GNP for 1967 was compared to that of 1977, and the same was done for the 1977 and 1987 date. The outcome of each was then added together and then averaged. The reason this approach was chosen was that if only the 1967 and 1987 data were used, an erroneous measure of change would be created that would not capture changes made by the midpoint year of the data set. Thus, the formula for determining the economic growth rate is:

\[ \frac{PCGNP_i - PCGNP_{i-1}}{PCGNP_i} \times 100 + \frac{PCGNP_{\text{new}} - PCGNP_{\text{new-1}}}{PCGNP_{\text{new}}} \times 100 \]

Level of Democracy

Huntington (1991), in his study of the proliferation of
democratic forms of government in the late twentieth century, stated that although there were many aspects of the concept, democracy *per se* can be defined as a system of government in which "its most powerful collective decision makers are selected through fair, honest, and periodic elections in which candidates freely compete for votes and in which virtually all of the adult population is eligible to vote" (1991: 7). By this definition, democratic systems have institutions that allow for the free exchange of ideas and the redress of grievances from the government. Olson (1993: 572) adds further that "a democracy is not viable if individuals, including the leading rivals of the administration in power, lack the rights of free speech and to security for their property and contracts."

These democratic institutions are not limited to those governmental bodies that allow for open representation. Rather, they include such forums for public opinion as a free and unrestricted press, the ability to publicly assemble and to openly disagree with political leaders without fear of reprisal. Gurr (1990: 38) further defines democracies as those political systems in which there is a "presence of institutions and procedures through which citizens can express effective preferences about alternative
policies and leaders" exist and in which institutions
"guarantee...civil liberties to all citizens in their daily
lives and in acts of political participation." Therefore,
because democratic institutions provide people with means to
freely address political grievances, citizens are not as
prone to rely on more unconventional means of political
expression, such as political violence, as they would should
they be living within a more closed or repressive political
system.

To operationalize the level of democracy, data was
obtained by Poe and Tate (1994) from the Freedom House Index
of Political Rights. The Freedom House data measures a
country's level of democracy based on its population's
ability to freely choose its political leadership,
constitutional constraints on the abuses of executive power
and the protection of individual civil liberties. The level
of democracy is measured on a scale of one to seven, with
one representing governments with few, if any, democratic
principles, and seven representing fully-realized democratic
governments and societies. Poe and Tate inverted this
variable from its original scale, which placed the level of
democracy on an ascending scale, as opposed to the
descending scale utilized by Freedom House. Therefore, if
countries with the most open democratic systems are coded as
"7", those countries that are classified as having the most restrictive forms of government are coded as "1".

Leftist and Military Regime Types

The reason leftist and military regime types were chosen as independent variables is that they, like the level of democracy, represent a regime type. However, unlike the level of democracy variable, which simply measures the openness of governments on a scale, the regime type variables actually identifies and classifies those governments identified by the democracy variable as being more repressive. Like the democracy variable, the leftist and military regime variables were derived from the Poe and Tate data set.

Founded on the tenets of Marxist, Marxist-Leninist or Maoist ideologies, leftist regimes assume the primacy of the state over the individual as the means of establishing the "egalitarian" dictatorship of the proletariat. Such regimes are characterized by the centralization of all state governmental authority under a single party or a small coalition of like-minded party organizations, control of all political and social institutions by the party apparatus and the willful use of coercion to reduce or quell dissent. With this in mind, it should be understood that it is
hypothesized that such governments would function as a constraint on a variety of political activities, to include terrorism. For this study, then, leftist regimes are those governments that are "defined quite precisely as those governed by a socialist party or coalition that does not allow effective electoral competition from nonsocialist opposition" (Poe and Tate, 194: 858).

Military regimes, on the other hand, were defined as those governments that come to power "as the consequence of a successful coup d'etat, led by the army, navy or air force, that remained in power with a military person as the chief executive, for at least six months for a given year" or those governments "with either a civilian as the chief executive and several military persons in the cabinet or a military head of government who nominated a civilian as the head of government and himself worked behind the scenes" (ibid.). Although Huntington (1968) argues that military governments are often a means for restoring order to a society, that order is imposed through either the direct or implied use of force. Like the leftist regime type, military juntas centralize state power under a centralized command structure and either place extreme limits or eradicate altogether those political and societal institutions that provide for democratic political
participation.

British Cultural Influence

Like the level of democracy, leftist regime and military regime variables, British cultural influence was selected as a control variable in that it assists in identifying a certain regime type. To be specific, parliamentary governments based on the British model as a result of a colonial relationship with Great Britain. This should not be misconstrued to mean that these governments are parliamentary democracies, in that many of these former colonial possessions that share this legacy did not possess substantially democratic institutions during the period of this study and possessed forms of government that were either leftist or military in nature. Moreover, a number of democratic governments, specifically those of western Europe and Japan, were not influenced by British colonialism.

To operationalize this variable, I will simply follow the coding established by Poe and Tate. They operationalize this variable simply by coding those countries that once fell within the scope of Britain's colonial empire as a "1". All other countries that did not share this experience were coded as "0".
Event Outcome

Operationalizing the Dependent Variable

The second dependent variable is event outcome. The importance of using the outcome variable is emphasized by Poe (1988: 34) when he stated that "[o]ne of the primary concerns in any hostage situation is the safety of those being held hostage" and that the "safety of all innocent lives should be considered when the costs of hard-line responses are weighed against the benefits." Therefore, the question that should be asked is whether the level of response taken by the target government, through a conscious policy decision, directly influence the event's outcome.

To effectively operationalize the event outcome variable, it became necessary to recode the "hostage fate" variable found in the ITERATE data sets. As originally coded, however, the hostage fate variable contained certain values that did not directly measure the results of a given level of response by the target government. These extraneous values included "victim successfully avoided capture" and "victim killed while attempting to avoid capture." As these values do not reflect an outcome that was directly influenced by government action, they were deleted from the analysis.

The hostage fate variable in the ITERATE data sets
does, however, contain nine values that identify various event outcomes applicable to this study. They are:

1. No damage or casualties, hostages released, policy capitulation or compromise by target;
2. No damage or casualties, hostages released, no target capitulation;
3. Damaged material, no hostages killed, hostages released;
4. Damaged material, no target capitulation, no hostages killed, hostages released;
5. Hostages killed, no provocation, during negotiations;
6. Hostages killed during negotiations, deadline had had passed;
7. Hostages killed, capitulation or compromise by target;
8. Hostages killed, no target capitulation; and
9. Hostages killed in shootout.

However, this type of coding raises a measurement control issue. To be specific, does this variable accurately measure, for the purposes of this study, a least-to-worst measure of event outcomes? In an attempt to address these issues, the values of the event outcome variable are recoded as follows:
0. No damage or casualties (values 1 and 2); 
1. Damaged material (values 3 and 4); and 
2. Hostages killed (values 5 through 9).

Operationalizing the Independent Variable
Response Strength

As in the analysis of the first question, response strength is the primary independent variable of choice. In this analysis, however, special attention will be paid to the level of response taken by the target government relative to the outcome of the event. To reiterate, level of response, as it is originally coded by the data set, consists of a seven category measure that ranks the target governments' response strength from the weakest to the strongest values. As I stated previously, this variable will be recoded to examine the event outcome as a result of government response from the hostage taker's point of view. It is hypothesized that the level of response will significantly influence the outcome of the event, in that tougher responses will increase the likelihood of casualties or damage to property while other, less tough actions will be apt to secure the peaceful release of hostages and will not result in hostage deaths.
Summary

In this chapter I introduced and discussed the research design of this study. First, I introduced and discussed the data set constructed for this study. Second, I discussed OLS regression analysis and the logical reasoning for constructing multivariate and bivariate equations to test the relationships between the variables. Finally, I identified and operationalized the dependent and independent variables to be evaluated in each model tested in this study.

In the next chapter I will introduce the models and conduct an analysis of each proposed relationship between these variables. These models will test the following hypotheses:

$H_1$: The level of government response will directly affect the outcome of the hostage event;

$H_2$: How strongly a government responds to a hostage event will determine how frequently that government is the target of terrorist demands in hostage events, i.e. the hard-line approach functions as a deterrent;

$H_3$: Developed countries will face a higher number of terrorist hostage events than less developed countries;

$H_4$: Countries with a high economic growth rate, as measured by the percent of change in per capita GNP, will have a higher event frequency than countries with lower economic growth rates;

$H_5$: A country's level of democratic development will lead to fewer hostage events;

$H_6$: Leftist or military governments will be targeted with fewer hostage events; and

$H_7$: Governments based on the British-influenced parliamentary model will be targeted with fewer
hostage events.

In the final chapter I will discuss the results of the tests of these hypotheses and how the results may reflect on current hostage literature.
CHAPTER FOUR

STATISTICAL METHODS AND RESULTS

Methodology

The statistical technique that will be used for this analysis is Ordinary Least Squares (OLS) multiple regression analysis. OLS regression analysis, simply stated, picks a unique line, or slope, in a cloud of data points in a two- or multi-dimensional space, thus minimizing the sum of squares between the points and the line. The algebraic equation that characterizes this line \( Y = a + bX + e \) describes the relationship between the data points located along the slope and thus the relationship between the dependent and independent variables.

Multivariate regressions are those mathematical relationships that operate as "a linear function of more than one independent variable" that "suggests that \( Y \) is determined by \( X_1 \) and \( X_2 \), plus an error term" (Lewis-Beck, 1980: 48). Moreover, this equation details the relationship between each of the independent variables as captured by the regression coefficients \( (a_0, b_1, b_2, \ldots, b_n) \). The closer the relationship between the independent variable (cause) and the dependent variable (effect), the closer to "1" the
coefficient of determination, or $R^2$, will be. Thus, as Lewis-Beck states, "The closer the regression line to the points, the better the equation 'fits' the data" and the greater the confidence that the relationships between the variables represents reality (ibid., 20).

Data

As stated in the previous chapter, the data used for this study were derived from the ITERATE II and ITERATE III data sets, as well as selected variables from the data set created by Poe and Tate to measure repression and freedom. Because of the nature of the data set vis a vis the dependent variables, some modifications of the data were needed. When the necessary variables were extracted from the ITERATE data sets and merged into a single file, they provided the study with a total of 817 transnational hostage events. However, upon careful examination of the data, it was determined that many of the events were not applicable or functional for this study, specifically those cases in which there either was not a recorded outcome for the event or the target was a nongovernmental actor. Once these cases were dropped from the analysis, there was a total of 253 hostage events in which 71 countries were targeted.
The second aspect of the data that needed to be addressed was the lack of a variable to measure event frequency, or the number of times the countries in this data set were targeted in a hostage event. To create this variable, an aggregate data file was created through SPSS in which the number of events were calculated for each target nation for the entire period under study. This was done by combining the "event start date" variable for each of country. For example, if Country X had an event start date on November 1, 1968, and another event start date on July 3, 1975, these dates would simply be aggregated into an event frequency of two. Moreover, as the aggregate file created averages for each variable, it provided increased insight into a number of questions to be addressed later, including the level of response and event frequency for individual countries.

Models To Review

Through the use of OLS regression analysis, two models will be tested. They are:
\[ Y = a + b_1X_1 + e, \]
where:
\[ Y = \text{the outcome of the hostage event, i.e. level of damage and if lives were lost;} \]
a = the average value of the event outcome when all variables are equal to 0;

$b_n$ = the regression coefficient;

$X$ = the level or strength of response by the target government when faced with a hostage event; and

e = error term;

$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + e$

where:

$Y$ = the frequency of hostage events;

$a = the summed event frequency when all variables are equal to 0; 

$b_n = the regression coefficient; 

X_1 = level of strength of response by the target government when faced with a hostage event; 

X_2 = economic growth rate (as calculated by the method described in the previous chapter); 

X_3 = level of economic development (per capita GNP); 

X_4 = mean level of democracy in the target country; 

X_5 = military regime-type in target country; 

X_6 = leftist regime-type in target country; 

X_7 = legacy of British colonialism in target country; and 

e = error term.
Level of Response and Event Outcome

Event Outcome: An Initial Test

In his 1988 study of governments' response to hostage events, Poe states that "[o]ne of the major concerns in any hostage situation is the safety of those who are being held hostage" (1988: 34). There are also, as stated in Chapter Two, the concerns of the hostage taker, which include publicity for their cause and acquiescence by the target to their demands, and the need for the target nation to successfully resolve the situation and protect the lives of the hostages. With this in mind, the question that must be asked is whether or not there is indeed a correlation between the level of target response and event outcome?

In an attempt to answer this question and determine this hypothesized relationship, a bivariate regression was run with event outcome as the dependent variable and the level of target response as the independent variable. Numerous iterations to test the hypothesized relationship between response and outcome were conducted using both the merged ITERATE data set and the aggregate file.

In the first regression (see Table 1), the unmodified event outcome variable was regressed against the unmodified response variable, which were titled DAMAGE and RESPONSE, respectively, in the merged file. In each iteration the
level of analysis is the hostage event. The first iteration produced a positive relationship between the variables, as indicated by a strong standardized coefficient (0.968), a t-score of 14.491 (p < .05 one-tailed test) and an $R^2$ of 0.45650. What is interesting is that although the mean response strength in 253 cases was 3.528, signifying a pattern by the target of not granting concessions to the hostage takers, the mean event outcome was 2.548, denoting the release of hostages without deaths or capitulation by the target nation.

In the second iteration, the modified event outcome variable, which was labeled DAMGE2, was regressed against the RESPONSE variable. As stated in the previous chapter, DAMGE2 was created by collapsing the nine values in the original DAMAGE variable into three, which were:

0. No damage or casualties;
1. Damaged material; and
2. Hostages killed.

Although the relationship between the two variables remained positive, there was a marked decline in the coefficient (0.264), the t-score (11.014) and the $R^2$ (0.32583).

The third iteration of this model regressed the DAMGE2 against the recoded RESPONSE variable. To restate what was
discussed in Chapter Three, the original RESPONSE variable contained seven values that ranged from capitulation to a shootout with the terrorists. It was stated that these values would be refined in order to examine the hostage event, government response and outcome from the viewpoint of the hostage taker. Thus, the recoded variable, labeled RESP2, has three categories:

1. Capitulation;
2. A clear willingness to compromise; and
3. No concessions.

Again, there remained a positive significant relationship between response and outcome, although the coefficient, t-score and $R^2$ continued to decline to 0.405, 6.422 and 0.1411, respectively. What is interesting about the findings of this iteration is that although the mean event outcome remained the same at 0.379, the mean response strength measured 2.364, almost halfway between a clear willingness demonstrated by governments to compromise and the strict adherence to a no-concessions policy.

Event Outcome and Response Strength: A Second Look

The second look at this bivariate model involves the aggregate data set created to evaluate event frequency. In this data set, the level of analysis is the target
government, of which there are 71. As in the first iteration of the first cut, the event outcome variable (DAMAGE) was regressed against level of response (RESPONSE). The results between the iterations and the data sets remained fairly constant, with an $R^2$ of 0.41636, a coefficient of 0.782 and a mean response strength of 3.952. The mean event outcome measured 2.653. The differences in means between the data sets is attributed to the nature of the aggregated data set. In each of the remaining iterations, the values of the means, coefficients and $R^2$s remained fairly consistent with one another and tended to correspond with the results of the first cut of this model (see Tables 1 and 2).

Discussion

This study's first test was to determine whether or not the target nation's level of response has an effect on the outcome of a hostage event. The results of eight separate iterations of the level of response and event outcome variable demonstrate that there is a positive relationship between the two variables, i.e. response will affect outcome, leading to the acceptance of the first hypothesis. As shown in the scatterplot (Figure 1), there is a tendency for harsher responses (shootout with terrorists), such as in
the cases of Afghanistan and Belgium, to result in the deaths of hostages. Conversely, the lowest response strength (capitulation) resulted in the lowest event outcome (hostages released).

These findings are consistent with those of Poe (1988) in his study of the relationship between response strength and the number of deaths per event. Poe states that "while some nations that tended toward no-concessions responses clearly had a large mean number of deaths per event, others that responded in the same manner had no deaths" and that "a strong mean response is not sufficient for high death rates to occur" (1988: 35).

Although this study focused on the event outcome as opposed to the mean number of deaths, the results are generally the same. In each of the iterations, the mean response strength ranged from 3.528 to 3.952 and the mean event outcome ranged from 2.548 to 2.653. The majority of the nations targeted fell within this range, to include Israel and the United States, which were identified by Evans (1977, 1978, 1979) as countries who espoused no-concessions policies. As demonstrated in Figure 1, each of these countries, as well as the majority of the other target nations, followed a no-concessions policy approach to hostage events. However, the mean event outcome
demonstrates that such a response does not necessarily result in the deaths of the hostages.

Deterrence and the Determinants of Event Frequency

This study's examination of the deterrence hypothesis is similar to previous research (Crelinsten and Szabo, 1975; Kupperman and Trent, 1979; Mickolus, 1977; Evans, 1977, 1978, 1979; Poe, 1988; Brophy-Bauerman and Coneybeare, 1994) in that it primarily seeks to determine if there exists a relationship between a country's level of response and the number of times that it the target of hostage events. In other words, do governments that espouse the hard-line response to international terror face fewer hostage events than those governments who are willing to make concessions?

The first test of this question was a simple bivariate regression that tested this hypothesized relationship between level of response and event frequency. Consistent with the findings of Poe, a t-score of -0.713 demonstrated a statistically insignificant inverse relationship, indicating that the level of response does not influence event frequency. Likewise, the R² could explain only 0.7 percent of variance between the two variables. Of the 71 countries that were the target of hostage takers demands, the mean number of events was 5.0 with a mean response
strength of 3.952.

However, as demonstrated in Figure 2, three countries (France, Israel and the United States) stood out as the most targeted countries in the study. France and the United States were targeted 23 times each and had mean response strengths of 3.68 and 3.31, respectively. As each of these measures fall below the mean (3.952) and signify a policy of no compromise, they tend to refute the hypothesis that the hard-line response functions as a deterrent. Israel, with 24 events, had the highest event frequency. Its mean response strength was 4.63 with an average event outcome of 4.06. As with the findings for France and the United States, the fact that Israel had the highest number of hostage events combined with a relatively strong response strength calls into question the efficacy of the hard-line approach as a deterrent.

The Determinants of Event Frequency: A Multiple Regression Model

If response strength does not significantly determine of event frequency, then what other factors do? As discussed in Chapter Three, six factors other than response strength are hypothesized to affect event frequency. To reiterate, these are the target country's level of economic
development as measured by per capita GNP, the economic growth rate, its level of democracy, whether or not the country has a leftist or military government and if the country had been influenced by British political culture through colonialism. Each of these variables, as well as the mean response strength for each country in the analysis, were then entered into a multiple regression in an attempt to explain the differences in hostage event frequencies.

In the analysis of this model, three countries were dropped from the equation as the result of the unavailability of economic data. These countries were Burma, Djibouti and the Faeroe Islands (a protectorate of the United Kingdom). The results of this model, however, prove interesting in that although the model did little to explain the variance between the independent and dependent variables ($R^2 = .2$), the direction taken by each of the independent variables provided some insight into how they influence event frequency (see Table 3).

As in the bivariate analysis, response strength in this model maintained its statistically insignificant inverse relationship with event frequency ($t = -.127$). The same held true for economic growth rate ($t = -1.105$) and the influence of British political culture ($t = -0.558$). The occurrence of a leftist regime type, which measured $-1.550$,
reached a traditionally acceptable level of statistical significance with a probability of greater than or equal to .10, leading to the acceptance of the hypothesis that asserts that leftist regime types will be targeted in fewer hostage events.

Conversely, a positive, if statistically insignificant, relationship was found to exist between event frequency and level of democracy (t = .804) and the occurrence of a military government (t = .156). As with the leftist regime-type variable, only economic development (t = 1.493) reached acceptable levels of statistical significance with a probability of greater than or equal to .10. Nonetheless, while this model does provide some answers concerning individual determinants of hostage event frequency, this model do little to support the argument that the hard-line response is an effective deterrent to hostage seizure.

It must be noted that because each of the variables did not reach acceptable levels of statistical significance, there was a question of whether or not they violated the rules of multicollinearity. To address this issue, two tests were run. The first was the Klein test, in which each of the independent variables was regressed against the other. The results demonstrated that none of the variables were related to one another in that none of the regressions
resulted in an $R^2$ of 0.6 or greater. The second test was a correlation matrix of Pearson's $r$ conducted through SPSS. As with the Klein test, none of the relationships between the independent variables resulted in a Pearson's $r$ greater than 0.6.

The Determinants of Event Frequency: A Second Analysis

As stated earlier, one of the findings of the bivariate analysis of response strength to event frequency was that some countries tended to be the target of hostage events more than others. As this regression included countries that were targeted only once, it can be argued that it did not fully capture the deterrent effect, if any, of response strength. Poe (1988: 33) states that "deterrence will become evident only among nations that have traditionally been the targets of a large number of events, and not in nations that are rarely made target...[and that] events taking place in nation that rarely experience terrorist demands may be 'unusual circumstances', brought on by short-term events." Because the mean number of events in this regression was five, only those countries that experienced five or more events would be included in the second iteration. This is an effort to control for any "unusual circumstance" that may have affected the earlier regression.
Of the 25 countries that were included in this model, the mean number of events per country was 10.52 (N = 243) with an average response strength of 3.588. What is interesting is that in the second iteration of the model there tended to be a reversal in the relationship between event frequency and certain independent variables.

The most intriguing was the resulting relationship between event frequency and target response strength. Whereas in the previous tests there existed an inverse relationship between the two variables, signifying that there was not a relationship between level of government response and event frequency, this relationship reversed itself in the second iteration. Although statistically insignificant (p = .64 one-tailed test), the t-score of 0.369 demonstrates a reversal of the inverse relationship between response strength and frequency (see Table 4). In simple terms, the level of response will influence event frequency. However, because of the lack of statistical significance in this hypothesized relationship, it cannot be concluded that the hard-line response is an effective deterrent.

Moreover, it was found that economic growth rate and level of economic development were statistically significant at the .05 level. Although economic growth rate exhibits a
strong t-score (-1.647), its negative value demonstrates an inverse relationship with event frequency, leading to the rejection of the hypothesis concerning the influence of rapid economic growth and terrorist hostage events. The resulting strong positive relationship between event frequency and a country's level of economic development (1.738), however, leads to the acceptance of the hypothesis that asserts that developed countries will face a higher number of hostage events than less developed countries.

Conclusion

In this chapter I again discussed the methodology and data that was used to conduct this study of international hostage events. I then introduced the models that were to be tested through OLS regression analysis, presented the findings and briefly discussed the results. In the concluding chapter I will further discuss the findings of this study and how they may relate to further analyses of governments' policies regarding international hostage events.
CHAPTER FIVE

CONCLUSION

In this study I have attempted to address the question of how governments respond to hostage events and the efficacy of that response. Researchers have often found themselves asking the same questions as those policy makers faced with politically-motivated hostage events. Again, the central questions are: Will a hard-line policy deter future acts of terror, and how will the level of response determine the event outcome?

Through the use of Ordinary Least Squares (OLS) regression analysis, I have attempted to address these questions by correlating level of response with event outcome and event frequency. I have also proposed that, in addition to the level of response, that there are six national factors that influence hostage event frequency. These are the target country's economic growth rate, level of economic development, the level of democratic development, the existence of a leftist or military style regime and the legacy of British colonialism. These proposed relationships were examined first in a bivariate test using a cross-national data set and then in a
multivariate model using an aggregated data set. The data covered a 20-year time period from 1967 to 1987. In the tests of the relationship between level of response and event outcome, it was found that a strong positive relationship does exist between the level of government response and government outcome. While this supports the findings of previous research, the results of these tests also lead to other conclusions.

The first, as discussed in Chapter Four, is a tendency for target governments to demonstrate a measure of flexibility when responding to hostage events, regardless of the policy rhetoric of national leaders. Second, by examining the mean event outcome in each test, it can be inferred that hostage takers may be flexible in their reactions in that they often released their hostages unharmed even though the target government did not capitulate to their demands. This is especially relevant in the cases of France, Israel and the United States, the countries that were the targets of the greatest number of hostage events. Although the mean response of these three countries was 4.1, signifying a policy of no concessions, the mean outcome measured 2.96, indicating that the terrorists released their hostages unharmed. This would
suggest a certain flexibility of response that is not normally attributed to the hostage taker.

It would therefore seem plausible that the four attributes of key actors identified by Lebow and Stein (1989: 223) in their discussion of deterrence theory may also be applied to the hostage taker. To reiterate, these are the assumption that those actors are instrumentally rational, they are risk-prone gain maximizers, they act free of domestic constraints and they identify themselves as either defenders or challengers. This also supports the argument by Crenshaw (1983: 26) that terrorists will take hostages not so much for the goal of having their demands met but to gain a measure of political power and tactical strength.

The third conclusion that can be drawn, based again on the mean response and mean event outcome, is that in most cases a no-concessions strategy was selected as a viable option from among a list of possible policy options by the target governments. A caveat, however, must be added to this conclusion. Although a majority of cases in this study resulted in a no-concessions response, the general rule of hostage negotiations is to continue to maintain a dialogue with the hostage-takers without granting major concessions.
(Mickolus, 1977: 222). It was also found, as demonstrated in Figure 1, that although target capitulation almost always resulted in the safe release of hostages, the use of force did not uniformly result in the deaths of hostages. However, as the use of force did result in the deaths of hostages in certain cases, it can be concluded that target governments will rely on this option only as a course of last resort.

The positive relationship between response strength and event frequency, on the other hand, contradicts those who argue that hard-line policies are indeed deterrents to acts of terror (Kissinger, 1975; Crelinsten and Szabo, 1979; Kupperman and Trent, 1979; Crenshaw, 1983; Friedland, 1983; Netanyahu, 1986; Wilkinson, 1986; Cowen, 1991). As stated in the previous chapter, when event frequency was regressed against response strength, the result was an inverse, albeit statistically insignificant, relationship. However, when the 25 countries that were targeted more than five times were tested, this relationship was reversed yet remained statistically insignificant. These findings do little to bolster the argument supporting the hard-line approach as a deterrent.

The multiple regression models attempted to answer these questions and derive some informed conclusions
regarding what may influence event frequency. The first iteration of this model found that only two of the six national characteristics chosen for this study correlated significantly with event frequency. Nevertheless, these results should not immediately lead to the dismissal of these variables as possible explanators of event frequency. It was found that economic growth rate, level of economic development and the presence of a leftist regime type did reach traditional levels of statistical significance ($p < .10$) in the first iteration of the model. The level of democracy, the presence of a military government or the legacy of British colonialism, on the other hand, demonstrated neither strength nor statistical significance predicted by the hypotheses.

This lack of significant results should not lead one to dismiss out of hand any possible relationships between those national factors and the number of times a country is the target of hostage events. Rather, one should understand that each of these variables may have lacked the sufficiently precise measurements required for a more conclusive outcome. To be specific, as the data set covered a 20-year period, in each of those years a separate value for the type of government was measured, however, not all
governments remained the same over time. The same holds true for the leftist regime type, economic growth rate and level of economic development. Moreover, because of the aggregated nature of this data, these shortcomings become more problematic.

These findings for the second model, at first glance, seem to lend stronger support to the arguments advanced by Evans (1977). He argues that deterrence is effective only when the costs and risks of a given action outweigh the benefits of that action. For example, as demonstrated in Figure 2, Afghanistan, Cuba, Djibouti, Sudan and the USSR had a far higher response strength than the other countries in the study, resulting in a combined average response of 5.734. These average number of events for these countries was 2.8. Evans further advances a similar argument regarding the soft-line approach, which consists of the granting of concessions to terrorists. Three countries, Austria, the Republic of Korea and Sweden, had a combined average response strength of 1.0 and were the target of an average of 2.0 events. However, this does not take into account that each of these examples lay at the extremes of the analysis and therefore ignores the remaining countries that fall within a more general bell-shaped curve. They further tend to support the critiques of Evans’ arguments as
discussed in Chapter Three.

These findings also tend to refute the statement by Mickolus (1977) that there is not a clear answer whether or not the hard-line response is a deterrent. It would seem that although it is not a deterrent per se, it does function as a viable response if necessary. What should be taken into account is what is the questions faced by the policy maker at the moment of the crisis: what are the exigencies of the situation? What does the situation call for in response? One would do well to remember in examining such events that, as Aston (1986: 57) stated, hostage events, just as any other act of political terror, "are political crises requiring political solutions."

Conclusion

In closing, it is hoped that this study assisted in providing a better understanding of how the level of government response may impact the outcome of a hostage event as well as those national factors that may or may not influence hostage event frequency. It must be said that much research remains to be done within this realm of terrorism studies.

Gaining a further understanding of the relationship
between response, event outcome and event frequency is a worthwhile goal for further research. As it was demonstrated in Figures 1 and 2, the relationships between the dependent and independent variables may not be linear. As Lewis-Beck (1980: 73) states, although "relationships among social science variables are often linear, it is not uncommon for nonlinearity to occur." Therefore, the existence of curvilinear relationships between these variables should be explored.

Future research should also expand on what other national factors or characteristics function as explanators of event frequency. For example, Costa Rica may have experienced far fewer events than El Salvador or Nicaragua because it was not involved in the same civil strife as its neighbors or as heavily involved in the region's proxy wars conducted by the Soviet Union and the United States. Similarly, Britain, France, Israel, West Germany and the United States may have faced a greater number of events because of their respective positions in a bipolar international system and, with the exception of West Germany, their roles in key regional conflicts. Therefore, other possible explanators of event frequency that are worthy of exploring include ethnic, political or religious cleavages within a country or region and the
internationalization of domestic civil strife. Moreover, further testing of such economic and political variables as level of development, economic growth rate and regime type by country and year will provide us a better idea of how these factors influence event frequency.
APPENDIX

Afghanistan
Algeria
Angola
Argentina
Austria
Belgium
Bolivia
Brazil
Burma
Canada
Colombia
Costa Rica
Cuba
Cyprus
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt
El Salvador
Ethiopia
France
Great Britain
Greece
Guatemala
Honduras
India
Indonesia
Iran
Iraq
Ireland
Israel
Italy
Japan
Jordan
Kuwait
Lebanon
Libya
Malawi
Malta
Mexico
Morocco
Mozambique
Netherlands
Nicaragua
Pakistan
Peru
Philippine Islands
Poland
Republic of Korea
Rhodesia/Zimbabwe
Saudi Arabia
Singapore
Somalia
South Africa
Spain
Sri Lanka
Sudan
Sweden
Switzerland
Syria
Tanzania
Tunisia
Turkey
United States
Uruguay
USSR
Venezuela
West Germany
Yugoslavia
Zambia
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<th>RESPONSE</th>
<th>RESP2</th>
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<tbody>
<tr>
<td>DAMAGE (μ)</td>
<td>2.548</td>
<td>2.542</td>
</tr>
<tr>
<td>Mean (RESP)</td>
<td>3.528</td>
<td>2.364</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.968</td>
<td>1.619</td>
</tr>
<tr>
<td>t-score</td>
<td>14.491*</td>
<td>8.903*</td>
</tr>
<tr>
<td>R²</td>
<td>0.4565</td>
<td>0.24</td>
</tr>
<tr>
<td>N</td>
<td>253</td>
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<tbody>
<tr>
<td>DAMAGE2 (μ)</td>
<td>0.379</td>
<td>0.379</td>
</tr>
<tr>
<td>Mean (RESP)</td>
<td>3.542</td>
<td>2.364</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.265</td>
<td>0.405</td>
</tr>
<tr>
<td>t-score</td>
<td>11.014*</td>
<td>6.422*</td>
</tr>
<tr>
<td>R²</td>
<td>0.326</td>
<td>0.141</td>
</tr>
<tr>
<td>N</td>
<td>253</td>
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*p ≤ .05 one-tailed test
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<tr>
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<th>RESP2</th>
</tr>
</thead>
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<tr>
<td>DAMAGE (μ)</td>
<td>2.653</td>
<td>2.653</td>
</tr>
<tr>
<td>MEAN (RESP)</td>
<td>3.952</td>
<td>2.423</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.782</td>
<td>1.355</td>
</tr>
<tr>
<td>t-score</td>
<td>7.016*</td>
<td>3.818*</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.416</td>
<td>0.175</td>
</tr>
<tr>
<td>N</td>
<td>71</td>
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<table>
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<tr>
<td>DAMAGE2 (μ)</td>
<td>0.317</td>
<td>0.317</td>
</tr>
<tr>
<td>MEAN (RESP)</td>
<td>3.855</td>
<td>2.431</td>
</tr>
<tr>
<td>Coefficient</td>
<td>0.185</td>
<td>0.290</td>
</tr>
<tr>
<td>t-score</td>
<td>4.850</td>
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</tr>
<tr>
<td>$R^2$</td>
<td>0.296*</td>
<td>0.296*</td>
</tr>
<tr>
<td>N</td>
<td>58</td>
<td>58</td>
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*p ≤ .05 one-tailed test
### TABLE 3
INFLUENCE OF RESPONSE STRENGTH AND NATIONAL FACTORS ON HOSTAGE EVENT FREQUENCY

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>t-score</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>5.162</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Response Strength</td>
<td>3.935</td>
<td>-0.127</td>
<td>-0.054</td>
</tr>
<tr>
<td>Economic Growth Rate</td>
<td>138.965</td>
<td>-1.105</td>
<td>-0.008</td>
</tr>
<tr>
<td>Economic Development</td>
<td>2668.11</td>
<td>1.493**</td>
<td>4.118</td>
</tr>
<tr>
<td>Democracy</td>
<td>4.025</td>
<td>0.804</td>
<td>0.406</td>
</tr>
<tr>
<td>Leftist Regime</td>
<td>0.019</td>
<td>-1.55**</td>
<td>-3.039</td>
</tr>
<tr>
<td>Military Regime</td>
<td>0.335</td>
<td>0.156</td>
<td>0.232</td>
</tr>
<tr>
<td>British Influence</td>
<td>0.283</td>
<td>-0.558</td>
<td>-0.844</td>
</tr>
</tbody>
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**R²** 0.201  
**F*** 2.155  
**N** 68

*P ≤ .05 one-tailed test  
**P ≤ .10 one-tailed test  
***P ≤ .05 two-tailed test
TABLE 4
INFLUENCE OF RESPONSE STRENGTH AND NATIONAL FACTORS ON HOSTAGE EVENT FREQUENCY, SELECTED COUNTRIES

<table>
<thead>
<tr>
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<th>Mean</th>
<th>t-score</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (n ≥ 5)</td>
<td>10.52</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Response Strength</td>
<td>3.59</td>
<td>0.369</td>
<td>0.557</td>
</tr>
<tr>
<td>Economic Growth Rate</td>
<td>136.316</td>
<td>-1.647*</td>
<td>-0.386</td>
</tr>
<tr>
<td>Economic Development</td>
<td>3263.03</td>
<td>1.738*</td>
<td>0.001</td>
</tr>
<tr>
<td>Democracy</td>
<td>5.001</td>
<td>-1.09</td>
<td>-1.569</td>
</tr>
<tr>
<td>Leftist Regime</td>
<td>0.007</td>
<td>-0.5480</td>
<td>-23.028</td>
</tr>
<tr>
<td>Military Regime</td>
<td>0.31</td>
<td>-0.502</td>
<td>-1.694</td>
</tr>
<tr>
<td>British Influence</td>
<td>0.211</td>
<td>0.572</td>
<td>2.065</td>
</tr>
</tbody>
</table>

R²  0.328
F   1.186
N   25

*p ≤ .05 one-tailed test
Figure 1: The Effects of Governments' Response on Event Outcome
Figure 1

1. Angola, Austria, Republic of Korea, Sweden
2. Algeria, Italy, Morocco, South Africa, Tanzania, Yugoslavia
3. Lebanon, West Germany
4. France, India
5. Philippine Islands
6. El Salvador
7. Britain, Burma, Dominica, Mozambique, Somalia
8. Costa Rica, Cyprus, Jordan, Switzerland
9. Ecuador, Haiti
10. Honduras, Mexico
11. Brazil, Japan, Venezuela
12. Guatemala
13. Ethiopia, Indonesia, Poland
14. Dominican Republic
Figure 2: The Effects of Governments' Response on Event Frequency
Figure 2

1. Brazil, Greece, Honduras, Japan, Nicaragua, Venezuela
2. Ghana, India
3. Burma, Dominica, Ecuador, Ethiopia, Haiti, Mozambique, Somalia, Zambia
4. Bolivia, Brazil, Costa Rica, Jordan, Pakistan, Switzerland
5. Canada
6. Yugoslavia
7. Algeria, Morocco, Peru, South Africa, Sri Lanka, Tanzania, Tunisia
8. Uruguay
9. Saudi Arabia
10. Argentina
11. Kuwait
12. Egypt, Malta
13. Iran
14. Ireland
15. Rhodesia/Zimbabwe
16. Cuba, USSR
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