

## ABSTRACT

Title of Thesis: ALTERNATIVES TO PUNISHMENT: COUNTERTERRORISM STRATEGIES IN ALGERIA

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Rational choice theory has been one of the key theories used to explain the effectiveness of counterterrorism policies (Dugan, LaFree & Piquero, 2005; Enders & Sandler, 1993; 2003; Frey, 2004; LaFree, Dugan & Korte, 2009). These investigations have examined policies focused on increasing the costs of committing political violence, such as criminalization, increased police presence, and government strikes. However, few investigations have looked at policies that increase the benefits of not committing political violence such as negotiations and amnesties. In this study, I investigate the effectiveness of counterterrorism policies that seek to increase the benefits of not committing terrorism. I use Algeria as a case study and examine three counterterrorism policies between 1994 and 2004. One of the policies is a traditionally deterrent policy that increases the consequences of committing terrorism while the two other policies represent alternatively deterrent policies that increase the benefits of not committing terrorism.

To analyze these policies, I use ARIMA modeling (N=120 months) and the Global Terrorism Database to determine whether each policy led to a significant change

in overall attacks and the proportion of fatal attacks. While researchers have found mixed results when studying the effectiveness of traditional deterrence counterterrorist measures (Dugan, LaFree & Piquero; Enders & Sandler, 1993; Enders, Sandler & Cauley, 1990; LaFree, Dugan & Korte, 2009), I found that the Civil Concord Act, an amnesty program, as well as the Rome Platform, a negotiation policy, were related to a significant reduction in terrorism in Algeria.

ALTERNATIVES TO PUNISHMENT:  
COUNTERTERRORISM STRATEGIES IN ALGERIA

by

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## **CHAPTER 1**

### **Introduction**

"Le terrorisme naît de la solitude, de l'idée qu'il n'y a plus de recours, que les murs sans fenêtres sont trop épais, qu'il faut les faire sauter"

“Terrorism is born from solitude, from the idea that there is no other way-out, that the walls without windows are too thick, that it is necessary to explode them.”

-Albert Camus

Albert Camus, an Algerian writer and philosopher once wrote that terrorism is born from a perceived lack of options. According to Camus, there are roadblocks that are so impenetrable that it is necessary to resort to extreme violence. However, until recently, governments such as the United States have not used a broad range of counterterrorist tactics (Bapat, 2006). When Ronald Reagan famously stated that the United States would not negotiate with terrorists, he removed the option of negotiation as a tool to combat terrorism. There has been a recent push by some academics and practitioners to more rigorously examine the effectiveness of counterterrorist policies (see Lum, Kennedy & Sherley, 2006) and some research has shown that aggressive sanctions such as military strikes, increased prison penalties, and ousting suspected terrorists through camp raids have not been effective at reducing terrorism (Enders, Sandler & Cauley, 1990; Frey, 2004; LaFree, Dugan & Korte, 2009).

The purpose of this Master's Thesis is to investigate the effectiveness of negotiating with terrorists using Algeria as a case study. More specifically, using organizational level crime theories, I look at the role of presenting options to terrorists as a form of counterterrorism in Algeria between 1991 and 2004. I begin with a brief review of rational choice theory and its application to terrorism followed by a discussion of

recent terrorist events in Algeria. Finally, I use an interrupted time-series analysis to test the success or failure of negotiating with those who use terrorism.

The definition of terrorism has been a hotly debated issue among policy makers and researchers (LaFree & Dugan, 2007; Schmid & Jongman, 2005; Weinberg, Pedahzur & Hirsch-Hoefler, 2004). For the purposes of this thesis, I will be using the LaFree and Dugan (2007, p.184) definition, “the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear, coercion or intimidation.” In this research, I assume that counterterrorism policies and tactics are governmental initiatives aimed at combating terrorism. Algeria serves as an important case study because of its decades of terrorism and violence. During the 1990s and 2000s, Algeria lost between 100,000 and 200,000 people due to political violence and terrorism (Bureau of Near Eastern Affairs, 2009). However, this wave of violence was not an isolated event in Algeria’s history. The Algerian War for Independence (La guerre d’Algérie) from France, which lasted from 1954 through 1962, was characterized by gruesome violence. Although numbers vary, Horne (2006) estimates that there were approximately 700,000 fatalities through the course of the eight year war. On July 3, 1962 French President Charles de Gaulle proclaimed Algeria an independent state, which left the North African nation with the onerous task of creating a unified country after centuries of colonial rule (Hill, 2006; Horne, 2006).

To help explain the effectiveness of counterterrorism strategies in Algeria, I draw on insights from organizational level rational choice theory (RCT). Clarke and Cornish (1985) were the first to integrate economic RCT into criminology, which states that humans are rational thinkers that seek to maximize pleasure and minimize pain. As

rational thinkers, humans weigh the benefits of committing a crime against the consequences of committing a crime. Organizational RCT seeks to explain actions committed by groups as opposed to actions solely committed by individuals (Paternoster & Simpson, 1996; Vaughan, 1996).

As the result of the frequency of terrorist attacks in Algeria, the government used a number of counterterrorist tactics to attempt to curb the violence. In this study, I look at three specific counterterrorist interventions: the Rome Platform, criminalization of terrorism, and the Civil Concord Act. Two of the interventions, the Rome Platform and the Civil Concord Act, were designed to serve as negotiating strategies to reduce terrorism through legitimization and forgiveness respectively. In this study, criminalization is a control to examine the effectiveness of a traditionally deterrent counterterrorist strategy.

To determine the effectiveness of each of the policies I use ARIMA modeling. ARIMA modeling separates the effect of an intervention from the random shocks that occur in time series data (Dugan, forthcoming). By parsing the effects of a counterterrorism policy from the natural patterns present in the observations, I am able to determine if any of the policies were associated with a significant change in the frequency of terrorism.

## CHAPTER 2

### Theoretical Framework

In this section I outline how rational choice theory supports my investigation of the effectiveness of counterterrorism strategies. I begin with a brief discussion of rational choice theory followed by a discussion of how rational choice theory fits into the framework of studying terrorism. I continue with a discussion of the importance of using reward-based rational choice theory and conclude with an argument for why organizational level theories are necessary when investigating behaviors of individuals in terrorist groups.

#### *Rational Choice Theory: Overview*

Rational choice theory (RCT) has a long history in economics literature (e.g. Simon, 1955). Rational choice theory stems from the idea that humans are rational thinkers that use the information around them to make decisions intended to maximize positives and minimize negatives. In criminology, RCT predicts that rational actors weigh the benefits of committing a crime against the costs of committing the crime (e.g. Clarke & Cornish, 1985; Paternoster & Simpson, 1993). Rational choice theory and deterrence theory stem from the Neo-Classical criminological idea that potential criminals will be less likely to commit crimes if punishments are more certain, severe, and swift (Vold, Bernard & Snipes, 2002). However, one important distinction RCT makes from deterrence theories is that humans are not perfectly rational beings and that there are internal and external factors that affect decision making (Simon, 1955). Within the criminological application of RCT Clarke and Cornish (1985) used the term “bounded rationality” to describe these internal and external factors.

Additionally, in economics, theorists discuss the idea of utility functions (e.g. Brophy-Baermann & Conybeare, 1994; Nash, 1950). Utility, as described by philosophers and economists, is the set of values that dictates the desirability and preference of various ideas, goods or actions. Like bounded rationality, utility helps explain why someone would engage in crime when the potential consequences of committing the crime are so high. For example, a teenager choosing to steal a car to impress his friends is clearly valuing the social status of car theft over the consequences of being caught. While acts of terrorism stem from larger goals like independence or religious revolution, the concepts of value and utility remain the same. If a potential terrorist believes that the only way to achieve his goal is through terrorism and the utility of using terrorism as a means of achieving that goal outweigh the potential consequences, he will engage in the act.

#### *Rational Choice and the Use of Rewards*

In the RCT literature, scholars almost exclusively focus on the deterrence aspect of rational decision making and how punishment alters crime behaviors (e.g. Nagin, 1998; Piliavin, Gartner, Thornton, Matusueda, 1986; Shavell, 2002). Researchers have, however, been negligent in their focus on how benefits of not committing crime factor into rational decision making. At its core, RCT does not naturally favor either the stick or the carrot explanation of behavior. One of the first researchers to examine the effects of using a combination of both rewards and punishments was psychologist B.F. Skinner (1953). In his research on operant conditioning, Skinner noted that researchers could shape subjects' behaviors through rewards for positive behavior as well as through punishments for negative behavior. Rewards can either be the removal of negative stimuli

or receiving positive stimuli. Punishments, in turn, are either the addition of a negative stimuli or the removal of a positive stimuli.

In criminology, the idea of rewards is more abstract than rewarding children with candy after performing the desired behavior. When discussing the rewards of non-crime, criminologists typically frame the concept in terms of the opposite of a consequence. For example, potential criminals would maintain freedom if they do not commit crime, but lose freedom if they commit crime. Criminologists have used informal rewards, such as family and friends' approval (Grasmick & Bursik, 1990), as a reason for not committing crime but criminologists and criminal justice practitioners rarely examine formal rewards. Other researchers have added different bounding features such as vicarious experience (Stafford & Warr, 1993), morality (Parker, 2006; Paternoster & Simpson, 1996; Stanovitch & West, 2000), and the effect of group behavior (Paternoster & Simpson, 1996).

Additionally, while responsive regulation is a corporate crime theory of punishment (Ayres & Braithwaite, 1995; Post, 2006), the theory promotes corporate choices for behavior. The pyramid of enforcement begins with persuading corporations to comply with regulations and laws. With each infraction, the corporation receives a harsher and harsher punishment. If the regulatory, civil and criminal sanctions are not effective at stopping the action, the enforcement pyramid recommends complete incapacitation. However, when corporations confess to the regulators, they often do so with the promise of immunity from sanctions (Post, 2006). In terms of operant conditioning, the rewards are the removal of the negative stimuli that a sanction would

bring. While they are not directly rewarding good behavior, the theory proposes that regulators should use the removal of negative stimuli as an incentive to follow the law.

Alternatively to theories that have espoused the importance of using rewards to shape behavior, there are theories that discuss the negative effects that result from punishments. In theories of counterterrorism and crime in general, researchers have discussed the idea of a backlash effect (Braithwaite, 2005; LaFree, Dugan & Korte, 2009; Sherman, 1993). The backlash effect refers to a response to sanctions that results in an increased amount of crime, terrorism or violence as opposed to a reduction in crime, terrorism or violence. Within the criminal justice literature, Sherman (1993) discusses the concept of defiance theory, which predicts that overly harsh punishments will not deter criminals but will create more crime and defiance within the punished criminals. Braithwaite (2005) discusses how defiance is much more likely when considering a restriction that is more central to an individual's identity or is especially important to him. Within terrorism literature, the idea of identity and religion are essential (Roy, 2004). Braithwaite (2005) would then predict that restrictions upon religion and restrictions upon religious political activism would spark an incredible amount of defiance. Defiance in relation to restrictions on religion and religious activism is exactly what Algeria encountered in the 1990s, which is why it is necessary to use alternatives to overly harsh penalties (Roberts, 2003).

#### *Organizational Structure and Rational Choice Theory*

Except for lone-wolf terrorists such as the Unabomber, most terrorists act at the group level (Crenshaw, 2000; McCauley & Mokalenko; Victoroff, 2005), and prior research (Roy, 2004) suggests that nearly all of the terrorist operatives in Algeria act at

the group level. As such, this analysis of terrorism is couched within organizational level theories of group behavior. More specifically, I use organizational level RCT to examine how counterterrorism policies can affect terrorism in Algeria. Dugan and Gibbs (2008) noted that the interaction amongst group members in terrorist organizations is an important factor when determining effective counterterrorism policies. Therefore, it is necessary to utilize organizational level theories to explain actions committed by terrorist organizations.

In general, organizational level RCT was formed to explain why businesses and individuals within corporations continue to commit crimes in the face of sanction threats (Paternoster & Simpson, 1993). In this version of RCT, the authors discuss two types of potential consequences for committing crime: utilitarian or instrumental consequences (i.e. serving a prison sentence) and nonutilitarian or moral consequences (i.e. losing self-respect). Essentially, two parallel decision making processes occur in the organizational RCT. A potential criminal must decide if the benefits of the crime outweigh the potential criminal sanctions and also if the potential crime fits in with the decision maker's ethical code. In addition to the two decision making processes, potential criminals act within the context of a larger organization. The organization's rules and norms, in turn, affect how the potential criminal judges both the utilitarian and nonutilitarian consequences to a crime.

To illustrate the dual processes, take the example of an employee who works at a firm where sexual harassment is fairly common. There would little utilitarian consequences for telling sexually explicit jokes to a female co-worker because other jokesters had not received sanctions for their comments. Additionally, there is little

chance of nonutilitarian consequences because colleagues witnessing the explicit jokes would be likely to accept the comments as normal office behavior. The jokester might even increase his social standing by making the comments. However, the employee might not be willing to tell the same joke at a religious group function because it would be outside the norm of acceptable behavior. Past jokesters at the religious functions might have been criticized for their comments (utilitarian) and the jokesters could have lost social esteem (nonutilitarian) in the process.

In addition to the dual decision making process, Paternoster and Simpson (1993) add a level of decision making to traditional RCT. In their model, the authors describe decision making within the context of a group. Decision making within a group context means that the decision maker must determine if the action fits with the group's norms, but also with their goals. In the above example, the employee making the sexually explicit comments changed his behavior depending on the group context. In order to make the decision of whether or not to make the sexually explicit comment, he had to determine whether or not the group he was in would judge him favorably or unfavorably. By choosing to make the joke at work, he is conforming with the group norms and potentially furthering the office "brotherhood." However, at the religious function he would be outside of group norms and detract from the group goal of fellowship.

Therefore, I use organizational level RCT for two reasons. First, Paternoster and Simpson's (1996) RCT model accounts for a dual decision making process. They consider the instrumental weighing of the importance of potential criminal sanctions against the benefits of committing the crime as well as the "moral" consequences of social sanctions for committing the crime. By morality, the authors refer to the question

of whether an action is inherently ethical. According to this argument, morality is similar to utility in economics. In economics, utility depends on norms and values. Morality, in turn, is also shaped by norms and values (Paternoster & Simpson, 1996). It is important to consider the morality of actions in the context of terrorism, and especially religious terrorism. There is substantial evidence (Hoffman, 1995; Hoffman, 1999; Post, Sprinzak & Denny, 2002) that terrorists believe that they are doing what is right and moral. I use the term “socio-instrumentality” throughout the rest of this paper because it combines the idea of threat of instrumental and social punishment.

Second, this model of RCT accounts for the effect of group influences on decision making (Paternoster & Simpson, 1993; Vaughan, 1998). Paternoster and Simpson (1993) expand upon traditional RCT by adding the context of committing a crime in a *group*. Group norms are important to consider as they can alter what type of behavior is acceptable for achieving goals. By definition, terrorists are seeking to achieve social, economic, political or religious goals (LaFree & Dugan, 2007). There are many organizations that also seek to achieve these goals but do not consider violence or threats of violence acceptable means of achievement. Thus, the effect of groups is important when studying terrorists’ behavior. In the next section I discuss the role of groups in decision making and then discuss the role of socio-instrumentality within Islamist terrorism.

It is important to consider the role of a collection of individuals because of the interpersonal dynamics that arise within groups. For example, if people believe that they must follow orders from others they view as leaders, they are more likely to obey the directives of these others (e.g. Milgram, 1963). In groups, there is a combination of

individual decisions made within the larger framework of an organization (Vaughan, 1998). As a result, choices are made under the dual constraints of individual and organizational bounding factors (Post, Sprinzak & Denny, 2002).

In addition, socio-instrumentality may be especially important to consider for religiously based groups because it is often one of their bounding qualities for rationality. While it is sometimes difficult to view terrorism as moral or rational, many might find the idea of defending one's identity and livelihood as much easier to grasp. For example, most people can understand the goal of survival and engaging in activities that promote survival. Thus, individuals find it rational to steal a loaf of bread to stave off starvation. Outside observers might also agree that the bread thief is morally correct in stealing the bread, especially if the bread is to feed hungry children.

Terrorists' goals are, at times, more abstract and difficult to conceptualize than stealing a loaf of bread to prevent starvation. In the case of Algerian terrorism, and more generally, Islamist terrorism, the goals are to create an Islamic nation (e.g. Bureau of Near Eastern Affairs, 2009). Like the person willing to steal a loaf of bread to survive, the terrorists were willing to commit mass murder to achieve their goal of an Islamic nation because they perceived it as the only option available to them. Islam is the center of their identity; therefore, those who question the role of Islam in the government are questioning their identity as individuals (Roberts, 2003; Roy, 2004). In this investigation, I analyze the effect of counterterrorist measures on religiously based terrorism in Algeria.

## CHAPTER 3

### A Review of the Literature

Traditional counterterrorism deterrence models predict that the increased certainty, severity, swiftness of punishments will lead to less terrorism. However, these models have not fared well when tested in the terrorism literature (e.g. LaFree, Dugan & Korte, 2009). Alternatives to deterrence models have been examined in fewer works, but are becoming more popular. To develop a more complete understanding of the effects of counterterrorism and to help create a responsible, evidence-based counterterrorist policy, it is important to consider what alternatives are available in terms of counterterrorism. The main purpose of this chapter is to discuss the research findings of studies that have examined the effectiveness of counterterrorism policies under the framework of Rational Choice Theory.

#### *Rational Choice Theory and Terrorism: Findings*

Rational choice perspectives have long been integral to investigations of terrorism (Dugan, LaFree & Piquero, 2005; Enders & Sandler, 1993; 2002; Frey, 2004; Frey & Luechinger, 2004). Both deterrence counterterrorism strategies and negotiation strategies fall under the umbrella of RCT. On the one hand, deterrence strategies increase the costs of a potential terrorist action. On the other hand, negotiation strategies increase the benefits of not committing crime or terrorism.

Within the framework of terrorism, RCT has been used to explain the effectiveness of various counterterrorism measures. In the criminological literature, RCT has been used to explain terrorism from many angles (Dugan, LaFree & Piquero, 2005; Frey & Luechinger, 2004; LaFree, Korte & Dugan, 2009). In one examination of RCT,

economists Enders, Sandler and Cauley (1990) used ARIMA modeling to test the success of four American counterterrorism policies. The study indicated that when presented with some traditionally deterrent policies such as the introduction of metal detectors as a means of preventing hijacking and increased security for American diplomatic targets, there was a reduction in terrorist attacks against the United States. Likewise, Dugan, LaFree and Piquero (2005) found support for RCT deterrence in their study of the use of metal detectors on the overall frequency of hijacking. Additionally, they found that when Cuba criminalized hijackings, there were fewer hijacked planes that diverted to Cuba. Therefore, within the literature, there is some support for the use of RCT when examining terrorism and the effectiveness of counterterrorism policies.

However, other studies have found mixed results for traditionally deterrent perspectives to combat terrorism (Enders, Sandler & Cauley, 1990; Frey, 2004; LaFree, Dugan & Korte, 2009). One of the reasons it is necessary to look at alternatives to purely deterrent theories of counterterrorism is that within the terrorism literature there has been increasing evidence that counterterrorism strategies based on harsh punishment have a backlash effect in which the policies are related to an increase in terrorism (Brophy-Baermann & Conybeare, 1994; Davis & Jenkins, 2004; Enders, Sandler & Cauley, 1990; LaFree, Dugan & Korte, 2009; Lum, Kennedy & Sherey, 2006). While Enders, Sandler and Cauley (1990) found that some American counterterrorism policies led to a reduction in terrorism, they also found that the 1986 American strike against Libya resulted in an *increase* in terrorist attacks. Likewise, in their investigation of British counterterrorism policies in Northern Ireland, LaFree, Dugan and Korte (2009) found a statistically significant backlash effect for three different counterterrorism policies. In this study I

propose that governments should use alternative deterrence policies when dealing with religiously based terrorism.

### *The Use of Rewards as an Alternative to Punishment*

Psychologists have done several studies on the use of rewards to shape behavior. Under the operant conditioning paradigm of using rewards to shape behavior, Podsakoff, Todor and Skov (1982) found that when leaders offered their subordinates rewards, the subordinates had better performance and there was higher performance satisfaction amongst the workers. In the punishment conditions, there was no effect on the subordinates' performance. This finding suggests that performance-based rewards are more effective at encouraging continued good performance than performance-based punishments are at encouraging good performance. Fehr and Gächter (2000) reviewed many studies about positive reinforcement to shape behaviors and found support for positive reinforcement such as the smiling waitress who is tipped more than the neutral waitress.

At the extreme end of the behavior modification-reward spectrum is research on drug addiction. It is generally accepted that drug addicts find using their drug rewarding and that drug addicts will alter their behavior in the quest for that reward. In fact, research on drug addiction has found that the same reward sensitive areas of the brain are triggered upon receiving addicts' drug of choice (Noble, 2000) as are activated when using reward-based learning in Parkinson's patients (Frank, Seeberger & O'Reilly, 2004). Thus, humans are hardwired to respond to rewards (Hyman, 2005). It follows that terrorists should respond to rewards as a means of reducing terrorism.

### *Support for Organizational Level Theories*

One of the classic studies that demonstrates the importance of decision making within a group setting is Milgram's (1963) seminal experiment examining obedience. In this study, subjects were told that they would be participating in a study examining the use of punishments in learning. Subjects were instructed by the experimenter to shock the "learner" at increasingly high voltages if the learner answered a question incorrectly. In actuality, the study measured what level of shock the subject would administer after being told by the experimenter to shock the learner. Nearly all subjects administered the maximum shock while the person being "shocked" screamed in pain. While this study was aimed at showing the dangers of extreme obedience, in the context of my study, Milgram (1963) lends evidence to my belief that it is important to use organizational level theories when studying terrorist group behavior. Alone or in any other context, the subject may not have shocked the learner to the maximum voltage. However, in the context where the subjects felt as if they were *expected* to shock the learner, they followed the lead of the experimenter and the group norms.

In the Paternoster and Simpson (1996) RCT model of corporate offending, the idea of multiple levels of decision making and group behavior is especially salient for examining terrorists' behaviors. For corporations, the authors discuss the costs and benefits for individuals within the corporation as well as for the company as a whole. In their study, the authors found that when making decisions about whether or not to commit a corporate crime, individuals whose corporation's norms were more accepting of corporate crime were more likely to be willing to engage in corporate crime themselves. To lend further support to the notion that the effect of a group structure is

important when making rational decisions, in a study of safety failures in NASA, Vaughan (1998) found that employees increasingly made more careless mistakes as the culture in NASA became increasingly lax in regulating their employees. Essentially, individuals feed off of each other and interact to create a group culture that is accepting of indiscretions.

Likewise, in interviews with 35 terrorists Post, Sprinzak and Denny (2002) found that the terrorists entered the organization thinking of themselves as individuals, but the longer that the individuals were in the group, the more they began to think of the group's goals above their own. McCauley and Moskalenko (2008) also discuss a group interaction dynamic when political parties radicalize into terrorist organizations. This notion of thinking of the group above the individual lends further credence to the use of organizational level theories to explain terrorism.

#### *Socio-instrumentality*

In a review of the psychology of terrorism literature, Victoroff (2005) proposes that terrorists really do consider themselves to be acting logically and that their actions are just and ethical. According to Hoffman (1995), terrorist groups have used religion as justification for their actions for centuries. Religion, especially Islam in Algeria, has become a sense of identity for the terrorists (Rapoport, 2004; Roy, 2004). Because religion is vital to the sense of identity and culture, the benefits of committing an act of terrorism in the name of the faith far outweigh the consequences of being punished for the action. Some might even believe that there are more consequences to standing idly by while their faith is not given the respect it deserves (Hoffman, 1995; Juergensmeyer, 2003; Rapoport, 2004; Roy, 2004). Therefore, utilizing a theory that considers ethics such

as the socio-instrumentality as a factor for decision making is necessary when studying terrorism.

Kruglanski and colleagues (2006) examined the role of collectivistic versus individualistic goals of 1,042 citizens of Muslim nations as predictors of support for using violence against the US and Europe. This study defined collectivistic goals as goals that seek to improve the status of a group as opposed to an individual. In the study, the researchers found strong support for collectivistic goals being related to an increased support for violence against the US and Europe. These group goals and the belief of purpose transcend individuals' sense of self into a larger meaning which drives their actions.

#### *Alternatives to Deterrence*

The importance of socio-instrumentality enters when considering why particular counterterrorist measures *should* be effective. For example, terrorists require a support base to be effective in their political movements (Dugan, Huang, LaFree & McCauley, 2009). In socio-instrumentality, one of the potential consequences that would-be terrorists must consider is their social standing after committing the attack. If the terrorist group's constituency views the organization's actions as immoral, then the organization is more likely to lose support. If the organization loses support, in the socio-instrumentality perspective, they should use terrorism less frequently.

A clear example of this phenomenon comes from the case of Armenian terrorist organizations ASALA (Dugan et al., 2009). ASALA originated as a terrorist organization that was dedicated to drawing attention to the Armenian genocide. To obtain this goal, the organization systematically attacked Turkish government officials and Turkish

targets. However, the group virtually collapsed after an ill-fated attack on the Orly Airport in Paris (Dugan et al., 2009). As a result of the Orly attack, the support for ASALA's actions ended abruptly as did the group itself. Therefore, within the structure of terrorist organizations, whether it be from the support base or elsewhere in the group structure, there is a sense of what actions are acceptable within the cause. In this case, attacking Turkish officials was more acceptable than attacking non-Turks and the resulting loss of support was a social sanction on ASALA. This social sanction was an effective method of reducing terrorism.

Braithwaite (2005) further outlines the role of a terrorist group's support base. The author points to the importance of a Diaspora believing in and financially supporting the cause as a reason for the continued success of the Irish Republican Army. To prevent the continued support of a terrorist organization and to prevent the growth of those organizations, Braithwaite suggests a double-barreled containment and enlargement policy. Containment is the process of preventing the expansion of the terrorist group's support base. Enlargement refers to an increase in social justice, democratic ideals, freedom from poverty and fulfilling other basic needs.

Therefore, from a RCT perspective, a counterterrorism sanction that focuses on presenting political alternatives to terrorism should be effective for two reasons. First, if the policy involves increasing the benefits of not committing terrorism, the group will have more to gain by not engaging in terrorism than by engaging in terrorism. If terrorists are, as I assume, to be rational thinkers, they will be more likely to reduce the frequency of their attacks. Secondly, if a counterterrorist policy presents an alternative to terrorism that represents a more socially acceptable alternative to terrorism, the terrorists will be

more likely to reduce the frequency of their attacks. From a RCT perspective, the terrorists need their support base to maintain operations in a particular country or region, thus they need to act in such a way that does not alienate their constituency.

## CHAPTER 4

### The Current Study

#### *Why Algeria?*

In regards to counterterrorism studies, Algeria presents an interesting case study for several reasons. First, the country is a democratic nation that has, in recent years, served as a liaison between Africa, the Middle East and Europe (Zoubir, 2002). Some scholars have also noted that Algeria has been one of the few moderately successful Middle Eastern democracies (Bouandel, 2005). Thus, using their policies as a model for Middle Eastern counterterrorism policies may be useful. Counterterrorism scholars have long used the country-case study method in the study of policy efficacy (see Lum, Kennedy & Pronin, 2006). It is important to use a specific nation because the context that the person or group is operating in will also affect the outcome of the behavior that is being learned (Dragoi & Staddon, 1999). In terms of frequency and severity of terrorism, between 1992 and 2004, experts estimate that between 100,000 and 200,000 Algerians died in the terrorist violence. Finally, according to Laqueur (2003), Algeria represents an extreme case of Islamist terrorism and a highly influential nation in the growth of Islamist terrorist networks across North Africa and the North African Diaspora. Islamist terrorism has come to the forefront for policy makers, which makes Algeria a salient nation for an examination of counterterrorism policies. Therefore, for this investigation, I focus on Algeria for its importance as an emerging democracy in North Africa, its severity of terrorism, and its religiously based terrorism.

The Algerian government employed a number of tactics throughout the 14 years included in this study period. For example, the government attempted to involve the

terrorists in political discussions, criminalized terrorism, and also offered amnesty to terrorists who turn themselves in. In this study I examine the Rome Platform (a tactic used to engage terrorist organizations in the political process), criminalizing terrorism, and the amnesty program known as the Civil Concord Act. The Algerian government created another amnesty program in 2005, but it lies outside the purview of this assessment. Future analyses should examine the effectiveness of this policy.

### *Algerian History*

Algeria presents an interesting study of terrorism due to its importance on the world stage as a democratic and Islamic nation (Entelis, 2006). Before independence from France in 1962, Algeria had been a colony or territory of another, larger nation or empire for all of its existence. Arguably the most profound impact on the course of Algerian history occurred in the 7<sup>th</sup> and 8<sup>th</sup> centuries CE. During this period, Arabs invaded Algeria and brought with them a language and a religion that were completely adopted by the local culture. Islam quickly became the main religion and basis of law for the Algerian people (Horne, 2006; Layish, 1995; Mayer, 1995; Roberts, 2003). Even after European influences from the Spanish and the French in later centuries, Algerians maintained their Islamic identity (Roberts, 2003). Islam's role in the government has been a much contested issue that sparked a major violent political conflict in 1991.

After ten centuries of Arab and Islam influenced government, the French took control of Algeria in 1830 (Toth, 1993). The abrupt shift of governance, law and culture built tensions throughout Algeria (Le Sueur, 2001) and the tensions between the French and the Algerians came to a head in the fall of 1954 when the Algerians launched the first attack that would lead to the Algerian War for Independence (Horne, 2006).

On All Saints Day of 1954 (*Toussaint Rouge*) groups of Algerian fighters planned an attack on the French occupiers. The date was reportedly chosen because the *pieds noirs* (Europeans or those of European descent living in Algeria) were strongly tied to the Catholic faith; therefore, an attack on All Saints Day would benefit from a lack of police officers to protect against the attack (Horne, 2006). While the All Saints Day Revolt did not end French colonial rule as organizers had hoped, it did allow for the National Liberation Front (FLN) to publicly espouse its goals and gain support for future attacks. Among the goals were the “restoration of the Algerian state, sovereign, democratic, and social within the framework of the principles of Islam” and unity with Arabo-Islamic Northern Africa (Horne, 2006: 95). These goals provided Algerians with a defined purpose and a commonality of identity that was previously lacking during French occupation.

#### *Foundation for a Nation and Terrorism*

After eight years of bloody conflict, the Algerians gained their independence from France in 1962 (Horne, 2006). Thankfully for the fledgling government, in the years following the revolution, there was relatively little violence and few terrorist attacks (Roberts, 2003). During that period, the Algerian government struggled with the post-colonial problem of nation building. To help create a more cohesive country, the Algerian government made a number of changes within the structure of the nation. These changes resulted in varying degrees of success. The first change the government made was to collapse all political parties and create a single national party. According to Hill (2006), this strategy is one of the main methods of propagating political legitimacy and control in a postcolonial nation. Algerian President Ben Bella consolidated the political parties

immediately following independence so that the only party that was allowed was the FLN.

The second change that the government made within the early presidencies was to launch a campaign to Arabize the schools, businesses and governmental agencies (Roberts, 2003). As a part of this process, schools began to instruct their students in Arabic rather than French. French had been the preferred language for nearly 150 years and Algerians met the abrupt shift with hesitation. The change was met with some resistance and some schools remained bilingual with instruction in both French and Arabic. As an unfortunate consequence of the differences in language education, graduates from monolingual Arabic schools lagged behind graduates from bilingual schools in the job market (Roberts, 2003). These discrepancies caused a great divide between the nation's elite who were educated in bilingual schools and the nation's Arabic intelligentsia. In later years, the Arabization of the school system and the alienation of monolingual Arabic speakers in the workplace became a unifying point for terrorists and political activists.

The third and most influential shift in the early presidencies was to make Islam the national religion of Algeria (Roy, 2004). Unlike language and political parties, Islam was a less divisive way to unite most, if not all Algerians, because the vast majority of Algerian citizens were Muslims. Islamizing the nation was a relatively simple and effective method of fostering cohesion in the young nation. Establishing Islam as the national religion made Algeria slightly different from a nation based on Islamic law. Algerians practice the Maliki branch of Sunni Islam, which is a method of creating and interpreting laws based on shari'a (Mayer, 1995). Shari'a is a system of practices within

Islam that are based on the Quran, the Prophet Mohammed's actions (sunna), interpretations based on the Quran and sunna, and consensus among legal scholars (Layish, 2004). However, within Algeria, laws are created in the "spirit" of Islam, but are not strictly created from shari'a practices. This system is different from Islamic nations such as Saudi Arabia, whose government considers the Quran the constitution and Iran, where mullahs are the supreme leaders of the country.

### *The Birth of Terrorism in Algeria*

The importance of Islam became an issue in the late 1980s and early 1990s with the rise of the Fronte Islamique du Salut/Islamic Salvation Front (FIS) party. After nearly 30 years as a free nation, the Algerian government altered the constitution in 1988 to allow for political parties. In that year, FIS declared itself a political party. At this point, Algerians, for the first time, had options other than the FLN (Roberts, 2003). The multiparty system and democratic elections allowed two types of options for the Algerian population. First, it allowed the general population the opportunity to vote in a fully democratic election. Second, political activists were allowed the ability to express their beliefs in a constructive and legal manner.

The significance of the transition to a multiparty system became fully evident during the 1991 parliamentary elections. During the elections, the FIS, which was an organization that strongly supported the creation of an Islamic state whose laws were based on shari'a, gained a majority of seats in Parliament. However, the sitting government was nervous about what a Parliament led by an Islamist organization would mean for the new nation (Roberts, 2003). FIS's leaders were prominent members of society (the President and Vice President were both university professors) and were

interested in creating a nation governed by the Quran like Iran or Pakistan. As a result of the sitting government's fear of what could happen, they ordered a military coup and invalidation of the election results (Roberts, 2003).

The single action of ordering the invalidation of the election completely altered the Algerian way of life for years. Almost overnight, riots and terrorist attacks erupted across the country (Roberts, 2003). The government made significant changes all through 1992 to try and stem the political tide, including dissolving FIS as a political party. However, the dissolution of FIS as a political organization completely removed the group's option of acting in a non-violent manner and served as reinforcement for violent attacks (Roberts, 2003). The terrorism that followed between 1992 and 2004, by many reports, was some of the worst the world has ever seen and will be the subject of this investigation.

#### *Counterterrorist Tactics in Algeria*

Throughout the 1990s, terrorism was nearly an every day event in Algeria (Roberts, 2003). As a result, the government developed a number of counterterrorism policies. As a whole, the Algerian government employed traditional counterterrorism tactics such as criminal justice and military interventions (International Crisis Group, 2001). However, at different points throughout the near civil war in Algeria, the government employed different negotiation techniques. In this paper I examine two different forms of negotiations with terrorists in Algeria: legalization and amnesty programs.

The first type of negotiation addresses terrorists at their core—as a violent political organization. Based on the aforementioned definition of terrorism, terrorist

organizations seek to achieve political goals. Therefore, it follows that if a government were to use negotiations, concessions should allow for more political power. In Algeria, the Rome Convention was an attempt to give a political voice to a formerly disenfranchised political group (Roberts, 2003). The second attempt at negotiations was to use amnesty programs. These programs, as a whole, attempt to repair the damage done after a long period of violence (Roht-Arriaza & Gibson, 1998; Staub, 2006). Amnesties have been used widely in Africa, most notably with South Africa's Truth and Reconciliation Commission (Asmal, Asmal & Roberts, 1998), and have been met with varying levels of support (International Crisis Group, 2001; Mendeloff, 2004). Reconciliation and amnesty programs are policies that urge combatants to admit their crimes in exchange for lesser, or in some cases, no criminal sanctions. In Algeria, the Civil Concord Act of 1999 was the government's attempt to end nearly a decade of violence that had claimed over 100,000 lives (Roberts, 2003).

#### *Rome Platform*

At this point in terrorism research, there has been much debate as to how political parties escalate and radicalize into terrorist organizations (e.g. McCauley & Moskalenko, 2008). Even within definitions of terrorism, political goals are highly prominent (LaFree & Dugan, 2007). Thankfully, not all political groups engage in terrorism (Wilkenfeld, Asal, Johnson, Pate & Michael, 2007). Neumann (2007) argues that analyzing a group's goals and views on violence is important when creating a negotiation strategy. Therefore, when considering FIS, offering political means of solving grievances for terrorists would be an appropriate counterterrorism measure. In a simplistic application of the framework of Paternoster and Simpson (1996), if terrorists feel they have an opportunity to engage in

a more socially correct form of political activism, they will choose that over violence.

The use of political power and opportunity was a salient aspect of the terrorism in Algeria (Roberts, 2003). Arguably the catalyst for nearly all of the terrorism problems in Algeria was the invalidation of the 1991 election. To exacerbate the problem, the Algerian government declared that FIS was no longer a legal political party in 1992. Therefore, one might assume that rectifying these problems would help to end terrorism.

In the early part his presidency, Liamine Zeroual made several attempts to use non-military means to end the terrorism in Algeria (Roberts, 2003). His presidency marked the beginning of a series of dialogues between the government and terrorists despite the fact that he was met with tremendous opposition. Between August and September of 1994, Zeroual met with several political factions, including the Palestinian group HAMAS, to create a truce between the terrorist groups and the government. However, the key player, FIS was not invited to this round of discussions. This oversight became a point of contention between the groups who were invited, who wanted FIS present, and the army, who did not want FIS present. Future discussions, however, would include FIS.

To follow-up on the discussion with Zeroual, the groups met again to form what was to become the Rome Platform. The Rome Platform was slated as a compromise between the radical Islamic extremists and the more moderate government (Roberts, 2003; Zoubir, 2002). In November of 1994, political parties first met at Sant' Edigio Rome to settle the growing problem of terrorist violence in Algeria. During that process, seven political parties, including FIS, met to discuss the future of the government and terrorism in the nation. The Rome Platform was signed on January 13, 1995 by several

key players including FIS. In this document, FIS stated that they would reject “violence as a means of acceding to or maintaining power” (Roberts, 2003). The idea that FIS would reject violence as a tool to gain political influence is paramount to this investigation of counterterrorism. In signing the Rome Platform, FIS agreed that they would not engage in violence if they were constitutionally granted methods of acting in a political versus violent means to achieve power (Roberts, 2003; Zoubir, 2002). Essentially, they were stating that they would engage in a socially acceptable alternative to terror.

While the Rome Platform would have created a compromise that could have resulted in a mutually beneficial outcome with FIS receiving political rights and ceasing their violent campaign for rights, the Platform was not met by the support that many had hoped that it would (Roberts, 2003; Zoubir, 2002). Even though the United States was moderately supportive of the Platform, neither the Algerian nor the French government came out in support of the document (Zoubir, 2002). Roberts (2003) has suggested that the failure to accept the Platform was a sign of the military’s maintenance of control in Algeria. However the period between August 1994 and January 1995 still represents a time when the government was willing to negotiate with terrorists in Algeria (Zoubir, 2002). The willingness to negotiate with the terrorists is an indication that the government was interested in utilizing alternatives to traditionally deterrent policies. The Rome Platform lays the ground work for future Algerian policies and in this analysis I test its effect on subsequent terrorist violence in Algeria.

*Civil Concord Act*

Amnesty programs are one of the more controversial choices that governments make following a long period of violence in a nation (Gibson, 2002; Lie, Binningsbø & Gates, 2007). This type of program is created to help foster peace and reconcile differences after a long period of violence. South Africa's Truth and Reconciliation Commission is one of the most well-known amnesty programs (Asmal, Asmal & Roberts, 1998; Gibson, 2002). The purpose of the commission was to heal the damages due to violence during apartheid, allow for victims' grievances to be heard, and allow for the perpetrators of violence to be given amnesty for their actions (Hamber, 1998). While amnesty programs have been scrutinized for the potential lack of justice (Gibson, 2002; Hamber, 1998; Lie, Binningsbø & Gates, 2007), researchers have found some support for the success of the Truth and Reconciliation Commission at the individual level and the country level of healing (Kaminer, Stein, Mbanga & Zungu-Dirwayi, 2001).

For the most part, these studies looked at the effect of creating healing following the end of violence, or, in the case of South Africa, the end of apartheid. They did not, however, look at the effect of an amnesty program on *initiating* the end of violence. The success that Kaminer and colleagues (2001) found does give some credence to the belief that Algeria's Civil Concord Act will see a reduction of terrorism. After the passing of the Civil Concord Act, television interviews of Algerian citizens about the Act had one common sentiment, "*On veut la paix,*" or "We want peace" (Thuillier, 1999). While South Africa and Algeria represent different cases, the desire for peace gives weight to the potential for the amnesty program to bring about a reduction of violence in the nation and promote a healing process.

Like other amnesty programs, the Civil Concord Act of 1999 served as a mechanism that allowed low level players in terrorist networks to renounce terrorism and cease terrorist related activities to avoid prosecution and receive mitigated sentencing (Algeria Watch, 1999). This law was devised by President Abdelaziz Bouteflika in an attempt to stave off the tremendous violence that had ravaged the country for the past seven years (International Crisis Group, 2001). Essentially, the law allowed terrorists to receive either probation, a mitigation of a prison sentence, or have their cases dropped entirely in exchange for admitting committing terrorist actions. To gain amnesty, the confessors were required to give the specifics of each of the crimes that they had committed, which allowed police to corroborate the terrorists' stories with police and news reports that had been filed. While the law provided amnesty for low level terrorists, it denied such benefits to anyone who had committed rape, murder, or mass murder.

To qualify for the reduced sentencing, the terrorists were required to report their actions within 6 months of the law's ratification. Therefore, free terrorists had between July 1999 and January 2000 to apply for the amnesty. For incarcerated terrorists, if they admitted to their acts and renounced all future acts of terrorism, their sentences would be mitigated, halved or given probation. The Civil Concord also solidified AIS's ceasefire that occurred in 1997 (International Crisis Group, 2001).

Reports indicate varying levels of acceptance of the Civil Concord Act (Arnould, 2007; International Crisis Group, 2001; Joffé, 2008; Staub, 2006). In her analysis of the Act, Arnould (2007) indicated that the Civil Concord Act had only minor levels of success. Other researchers, such as Staub (2006) and Joffé (2008) lay the groundwork for why the amnesty program should be successful in Algeria. First, Staub (2006) proposed

that amnesty programs promote truth in the populace. The Civil Concord Act should promote truth from both ends of the spectrum. For the government, the Islamists promote forgiveness and truth by turning themselves in to the government and vowing to cease terrorist action. From the Islamist perspective, the government is offering a means of achieving goals through non-violence. Second, Joffé (2008) discusses the ideas of “aman” and “rahma”. Aman and rahma are deeply rooted Islamic principles of clemency and mercy in exchange for submission to the central authority. By creating the amnesty program in Algeria, the government was promoting the Islamic ideas of aman and rahma.

In the previous section, I discussed how involvement in the political process gave terrorists something to gain; likewise, reducing terrorists’ sentences gives them something to gain. Even though the cause of Islamist terrorism goes beyond prison sentences for many terrorists, the Civil Concord Act was aimed at lower level terrorists. If the government can offer plausible alternatives to lower level terrorists, the government can get at the group’s core base of supporters. If the lower level terrorists take the amnesty and leave the group, the strength of the group would be reduced. Some policy specialists might want to focus their interventions on the higher ranking personnel within the organization, however it is highly unlikely that the upper level terrorists, especially Islamist terrorists, would ever be affected by interventions. If the government can get at the lower level terrorists before they have based their identity completely on Islamic extremism, then the terrorist groups will lose their support and go the way of ASALA.

*Criminalization of Terrorism*

One of the more popular forms of counterterrorism across the globe is the creation of specific crime codes that establish specific criminal penalties for terrorist acts (Dugan, LaFree & Piquero, 2005; Shapiro & Suzan, 2003). For Algeria, criminalization of terrorism was the addition of specific penalties and enhancements for crimes that were related to terror (Code Pénal, retrieved 2008). From a domestic government perspective, criminalization works to promote justice for the population being victimized. One of the ways criminalization promotes justice is through the use of the criminal justice system (LaFree & Hendrickson, 2007). Through the criminal justice system, terrorists are apprehended by police or law enforcement officials and prosecuted through the court system. LaFree and Hendrickson (2007) promote the use of a criminal justice approach to counterterrorism because it is more equipped to manage the cases than broad sweeping military interventions.

There has been mixed support for criminalization as a tactic to deter terrorists in general (LaFree, Dugan & Korte, 2009) and specific types of terrorist attacks (Dugan, LaFree & Piquero, 2005). However, one of the assumptions of criminalization as a strategy for combating terrorism is that the interventions are run by a police or law enforcement force instead of military responders (LaFree & Hendrickson, 2007). During the mid-1990s, when criminalization of terrorism was implemented in Algeria, the state was disjointed with the military acting somewhat autonomously from President Zeroual (Addi, 1998; Roberts, 2003). As such, the military often performed counterterrorism campaigns that were not explicitly authorized by the president, nor did the offensives fall within the bounds of the law (Addi, 1998). In this study, criminalization serves as a control for traditionally deterrent counterterrorist policies.

### *Effect of Counterterrorism in Algeria*

Despite Algeria's importance as an emerging democracy in North Africa and its role as the home base of Al Qaeda in the Islamic Maghreb (Gray & Stockham, 2008), as of April 2009, I have been unable to identify a single empirical analyses of terrorism in Algeria during the 1990s and early 21<sup>st</sup> century nor have there been any empirical analyses of Algerian terrorism during the war for independence (Crenshaw, 1995). In addition to the lack of analyses on terrorism in Algeria, there are no analyses of the counterterrorism policies the Algerian government utilized during the period of the study.

Through a broader search for empirical analyses of terrorism in North Africa I discovered that there are few studies that attempt to explicate the effectiveness of counterterrorism policies (Enders, Sandler & Cauley, 1990; Goerzig & Hashimi, 2007). One study in particular, Enders, Sandler and Cauley (1990), investigated the effect of American air raids on Libya in the 1980s. The study revealed that there was an increase in terrorism immediately following the countermeasure. An anecdotal investigation of counterterrorism policies used against Egyptian terrorist group Gamaa Islamia presents a similar dynamic as Algerian counterterrorism tactics (Goerzig & Hashimi, 2007). Following the assassination of President Anwar Sadat in 1981, the Egyptian government strengthened the deterrence aspect of their counterterrorism policies by increasing prison sentences and torturing suspected terrorists. However, the increasingly punitive measures did not result in a drop in terrorism. The introduction of negotiation tactics seemingly influenced Gamaa Islamia's agreement to cease committing terrorist attacks. While this study is not empirical, it presents support for alternatives to deterrence in Algeria.

## *Hypotheses*

- *Hypothesis 1. The Rome Platform, which allowed terrorist groups the opportunity to use non-violent means to achieve a political end, will reduce the frequency of terrorism in Algeria.*
- *Hypothesis 2. The Civil Concord Act, which gave terrorists incentives to obey the law, will result in a reduction of terrorism in Algeria.*
- *Hypothesis 3. The Rome Platform will be related to a drop in the proportion of fatal terrorist attacks in Algeria.*
- *Hypothesis 4. The Civil Concord Act will also be related to a drop in the proportion of fatal terrorist attacks in Algeria*

To assess the effectiveness of counterterrorism policies in Algeria, I have created four hypotheses. I draw each of these hypotheses from the RCT literature that I presented earlier. In this analysis, I examine the effectiveness of negotiation as a counterterrorist strategy. Effectiveness will be measured as a significant reduction in the frequency of attacks and/or a reduction in the proportion of fatal to total attacks. For these hypotheses, a negative relationship supports the RCT perspective that giving terrorists a reason to follow the law is effective in reducing terrorism. The proportion of fatal attacks to the total number of attacks addresses the moralistic/utility portion of Paternoster and Simpson's RCT model. If there is a social-instrumentality component to the terrorists' rational decision making, I expect that following both the Rome Platform and the Civil Concord Act that there will be a reduced proportion of fatal attacks to total attacks and a reduction in the proportion of civilian attacks to total attacks.

Hypothesis 1 is drawn from the RCT and terrorism literature that giving terrorists a legitimate means by which to obtain their goals (e.g. allowing a group to act as a legitimate political party) will be related to a drop in terrorism. From this perspective, there is more incentive for would be terrorists to act within the law instead of outside of the law. To examine the effectiveness of this policy, I will be looking at the Rome Platform. Likewise, Hypothesis 3 predicts that fatal incidents would decrease following the Rome Platform. Fatal incidents should decrease after the introduction of the Rome Platform if the terrorist organizations were considering the possible social sanctions and lack of support for killing Algerian citizens in the name of the cause after being offered the option of acting as a legitimate political organization.

Hypothesis 2 examines the effectiveness of the amnesty policy. Like Hypothesis 1, within the RCT and terrorism literature, I would expect that the Civil Concord Act would predict a reduction of terrorism. There should be a reduction of terrorism based on the idea of giving the terrorists incentives for not attacking. Within operant conditioning, the removal of a negative stimulus is a reward for following rules and the law. As such, by reducing terrorists' prison sentences after admitting to the crimes as well as vowing to not commit the crime again will be related to a drop in terrorism. Again, like Hypothesis 3, Hypothesis 4 draws upon the same notion of social sanction and support from the constituent group. As previously mentioned, news reports indicated that the Algerian population was eager for peace. If terrorists were considering the possible social sanctions of continuing to kill their fellow Algerians after getting the option of reduced sentences for ceasing to commit terrorism, I expect that the proportion of fatal incidents would diminish.



## CHAPTER 5

### Methods

This chapter describes the methodology I used to test the effectiveness of three Algerian counterterrorism policies. I use monthly counts of terrorist attacks in Algeria documented in the Global Terrorism Database from 1991 through 2004, supplemented with cases from the human rights organization Algeria Watch. With month as the unit of analysis (N=168), ARIMA modeling is used to determine the effects of the following three interventions. The Rome Platform was active between September 1994 and February 1995. Criminalization was in effect between March 1995 and July 1999. The third intervention, the Civil Concord Act, was in effect between August 1999 and February 2000. As described below, it was measured as both a temporary intervention that ended in February 2000 and as a more permanent policy shift that continued through the end of the series.

#### *Data*

This analysis relies on data from the Global Terrorism Database (GTD). The GTD currently is the most comprehensive open source database of terrorist events in the world. The events span the years 1970 to 2007 and were originally collected under the definition presented in LaFree and Dugan (2007, p. 184), “the threatened or actual use of illegal force and violence to attain a political, economic, religious or social goal through fear, coercion or intimidation.” This definition is broad in scope which allows for a more thorough analysis of the terrorist problem within the nation of Algeria. This particular analysis is updated up through March 2009 and uses data from 1991 through 2004. There were a total of 1,881 attacks in Algeria in the GTD between 1991 and 2004. The original

1993 were lost in an office move, so the 1993 data in this study were based on the average monthly attacks from the rest of the months in the data. The 1993 data have been imputed based on summary statistics provided by the Pinkerton Global Intelligence Service. The Pinkerton data indicated that there were 311 attacks in 1993 and the monthly distribution of the attacks for 1993 is listed in Table 1. To impute the missing data, I determined what proportion each month represented of the total data. The first column in Table 1 represents the monthly attack frequency across all of the years of the study except for 1993. I then determined what proportion each month represented from the total number of attacks. With the monthly proportion, I used that figure to determine the approximate number of attacks for each month in 1993. For example, January represented 9.31% of all the attacks in the series. To determine the approximate frequency of attacks in January 1993, I multiplied the number of attacks in 1993 (311) by .0931 to obtain a total of 28.9541. Because there cannot be partial attacks, I rounded the attacks to the nearest integer. Therefore, I estimated that there were 29 attacks in January 1993.

Other terrorism databases were inappropriate for this study because they did not capture domestic events (e.g. ITERATE), did not contain events for the time periods studied (e.g., the National Counterterrorism Center's World Incidents Tracking System), or were country specific (e.g. American Terrorism Database). A database that included domestic attacks was important to include because international attacks are far less frequent than domestic attacks. Additionally, between 1991 and 2004 nearly all Algerian attacks were domestic. Other databases did include the data parameters that were

necessary for the study. Therefore, because of the nature of the conflict in Algeria and the study's time period, the GTD is the obvious choice over other data sources.

To improve the comprehensiveness of the dataset, I compared the Algerian GTD cases to a set of terrorist attacks identified by Algeria Watch, a human rights' organization. For cases in Algeria Watch but not the GTD, the information was verified by at least two reliable media sources before being added to the dataset. English and French news outlets in Lexis-Nexis were used to verify the attacks. In total, I added 52 attacks from Algeria Watch for a total of 1,933 terrorist attacks between 1991 and 2004.

### *Analysis*

To determine the effects of counterterrorist interventions in Algeria, I use interrupted time series analysis. Interrupted time series analyses have been used in several recent empirical examinations of terrorism (Enders & Sandler, 2002; 1993; Pridemore, Chamlin & Trahan, 2008). More specifically, I use autoregressive integrated moving average model (ARIMA) analysis that accounts for the interrelatedness of time-dependent variables. One reason to use the ARIMA model is that it allows the analyst to distinguish between the effect of an intervention and "noise" in the data (McDowall, McCleary, Meidinger & Hay, 1980). A second reason an ARIMA model is appropriate is that it addresses the fact that in time-sensitive data, each successive Y value will be related to the previous Y value. In other models, this process would produce error terms that would be serially autocorrelated. ARIMA requires the analyst to make a number of assumptions. To correctly estimate an ARIMA model, the random shocks must have a mean of 0, a constant covariance, an independence of shocks and a normal distribution.

The estimators within ARIMA are the  $p$  parameter to measure autoregression, the  $d$  parameter to measure the differencing necessary to achieve stationarity, and the  $q$  parameter to measure the moving average component. Essentially, ARIMA modeling cleans time series data to remove the interrelatedness of the random shocks caused by autocorrelation, the expected value of the random shocks if it is different from zero, and the overall trend of the data. Autoregression refers to the interrelatedness of the error terms such that the value at time  $t$  depends on the value time  $t-1$ . Stationary models are models where the random shocks have an expected value that is not different from zero. Differencing helps to create stationarity. Finally, the moving average component of the ARIMA model refers to distinguishing random white noise from the overall trend of the data. For example, the general trend for crime is that there is an increase of incidents during the summer months. ARIMA modeling would remove the element of trend in order to test the effect of an intervention or event, such as increased time spent out of doors, on the incidence of crime.

Beyond a simple ARIMA, it is possible to test the effect of an intervention on the overall time series. Impact assessments are quasi-experiments that test to see if there is a significant difference in the data before and after the intervention (Dugan, forthcoming; McDowell, et al., 1980). For this assessment, I will be testing the effect of introducing three interventions with discrete beginning and ending dates as well as the effect of the Civil Concord Act as a permanent intervention on the ARIMA of terrorism in Algeria. Table 2 lists the interventions as well as the periods when they are active.

In Table 2, all interventions are lagged. Lagging the intervention will help ensure that the models are correctly capturing the impact of the intervention. In real time, the

negotiations around the Rome Platform began in August 1994 and ended in January 1995. However, for these analyses, the Rome Platform began in September 1994 and ended in February 1995. Likewise, Criminalization entered the Penal Code in February of 1995, but in the analysis, its start date is March 1995. Criminalization continues until the Civil Concord Act's introduction in July 1999. The analysis for the six-month window in which terrorists could seek amnesty through the Civil Concord Act begins in August 1999 and ends in February 2000. Finally, I also test the effect of the Civil Concord Act as a fundamental shift in the government's counterterrorism strategy. As such, I test the impact of the amnesty program from August 1999 through December 2004. The Rome Platform and criminalization were not extended because their policies had a clear end point. The Rome Platform ended when criminalization began. The increased sentences associated with the criminalization policy ended with the introduction of the Civil Concord Act. However, the Civil Concord Act was representative of a shift in overall government policy. In 2005, President Bouteflika initiated the charter for Peace and National Reconciliation, which indicates a continued commitment to alternatives to imprisonment for terrorists.

For each of these interventions, I performed impact assessments. Impact assessments start with an initial ARIMA acting as a baseline for the analysis and measure how an intervention or important event affects the time series (Dugan, forthcoming; McDowell, et al, 1980). In the summer crime example, the initial ARIMA would clean the data so there were no trends, the data were stationary, and the random shocks were unrelated. An impact assessment would test the effect of school dismissal on the incidence of crime. Using an ARIMA model, criminologists can distinguish between the

effect of schools' end dates from general trends and seasonal differences associated with crime. The interventions, in turn, are what drive the change in the model.

For this analysis, I modeled the Rome Platform as a dummy variable for the six months of negotiations. The Rome Platform was a brief conference whose goals were to involve the Islamic Salvation Front (FIS) into the political process. If political involvement were the main goal for FIS, I expect that there would be a sudden decrease in terrorism. However, because criminalization immediately followed the Rome Platform, I can only assess the intervention for a brief period of time. I believe it will have an abrupt, temporary impact because it is such a brief intervention. Therefore, in these analyses the variable will be represented as "0" pre-intervention, "1" during the 6 months of the intervention and "0" immediately following. Criminalization, in turn, is also a dummy variable that will be "0" before March 1995, "1" between March 1995 and July 1999, and "0" from August 1999 through December 2004. The Civil Concord Act is active "1" from August 1999 through February 2000 and "0" in all other time periods. Finally, the Civil Concord Act as a permanent shift is a "1" beginning in August 1999 and remains "1" through December 2004.

### *Variables*

For this analysis, I will be focusing on the monthly frequency of terrorism and the monthly proportion of fatal to total incidents in Algeria. As such, the unit of observation will be the month (N=168). To test my hypotheses, I will be using the natural log of the total monthly attacks over time. I will be using the natural log of monthly attacks because

the data are highly skewed and do not meet the assumption of normally distributed data<sup>1</sup>. To avoid taking the natural log of 0, I added 1 to all months.

The total monthly attacks will gauge how effective the three counterterrorism policies are at reducing terrorism in general. Ideally, I would include other variables as regressors. However, monthly values for potential correlates are incredibly difficult to find during this time period. Future analyses should examine external factors that could be related to Algerian terrorism.

In the analyses that follow, I assume that the Rome Platform will have an impact from September 1994 through its end in February 1995. The intervention initially began in August 1994, but as stated above, I will be lagging the interventions to ensure that I am capturing a clear picture of the terrorism pre-intervention and post-intervention.

Criminalization is active from March 1995 through July of 1999. The Algerian legislature added criminal sanctions for terrorism to the penal code in February 1995; therefore, the intervention begins in March 1995. The criminalization policy lasted until the enactment of the Civil Concord Act in July of 1999 and ended in January 2000. Therefore, the dates for this intervention will be August 1999 through February 2000. Finally, the Civil Concord Act as the representation of an overall shift to alternatives to deterrence will be represented from August 1999 through December 2004.

Figure 1 depicts the frequency of Algerian terrorist attacks over time from 1991 through 2004. The dashed vertical lines represent the points where counterterrorist policies were enacted and ended. On the X-axis, the time is represented in months. The first policy, the lagged Rome Platform, occurred between September 1994 and February

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<sup>1</sup> Because terrorist attacks are, in most places, rare and also discreet variables, monthly counts of events will be positively skewed. Taking the natural log of the attacks each month creates a continuous variable and normalizes the data.

1995. Criminalization, the second counterterrorism policy, lasts from March 1995 through July 1999. Finally, the Civil Concord Act was introduced during month August 1999 and ended in February 2000 and the permanent shift ends in December 2004.

## CHAPTER 6

### Results

In general, terrorism in Algeria erupted rather quickly following the invalidation of the 1991 elections. After that point, terrorism remained relatively stable until late 1997 into early 1998. Following the peak in the late 1990s, terrorism declined through the end of the series. In this next section, I discuss how the interventions affected the trends in terrorism.

#### *Trends in Terrorism*

Across the series, there were approximately 10 attacks per month on average. Figure 1 indicates a general upward trend in terrorist events from January 1991 through December 1993. From January 1993 through April 1996, terrorism in Algeria declined. However, terrorism increases between May 1996 through December 1997. The spike in December and January can be explained by a number of attacks and massacres that coincided with the Islamic month of Ramadan. Following the spike in the late 1990s, there is a dramatic decline in terrorist incidents.

Figure 2 shows similar trends in the frequency of fatal attacks<sup>2</sup>. In fact, not counting 1993 and the months where there were no attacks, 79% of all attacks in Algeria resulted in at least one fatality. This high figure is outside of the norm for terrorist attacks. According to LaFree & Dugan (2009), most terrorist attacks do not lead to fatalities, which is why Algeria's percent of fatal attacks is an interesting variable to study. Table 3 depicts the proportion of fatal attacks over time. Throughout the course of the series, the proportion of fatal terrorist attacks to total attacks remains fairly stable and

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<sup>2</sup> The 1993 data were not included in analyses of the proportion of fatal incidents because it was impossible to determine from the information available how often incidents were fatal.

quite high. For example, in the 58 months preceding the Civil Concord Act 84.4% of attacks in Algeria were fatal. During the 58 months following the Civil Concord Act, 67.2% of attacks resulted in fatalities. In the next section I will analyze these trends using ARIMA analyses to determine if the interventions such as the Civil Concord Act were related to a reduction in the overall frequency of terrorist attacks and the proportion of fatal terrorist attacks.

### *Statistical Analyses*

For these analyses, I used two different modeling structures to determine the appropriate effect of the interventions. First, I modeled interventions with an immediate, temporary change. Equation 1 presents this model.

$$Y_t = \delta Y_{t-1} + \omega I_t + \varepsilon \quad (1)$$

In this model  $\omega I_t$  represents the dummy intervention variable that equals “1” while the intervention is active and “0” pre-intervention and post-intervention (Dugan, forthcoming). The term  $\delta$  represents the slope of the change as a result of the intervention and  $\varepsilon$  represents the random noise in the model. If the slope is near 1, then the changes are all permanent. All of my models represented permanent changes. Therefore, I modeled the interventions as gradual changes but with permanent effects (Equation 2).

$$Y_t = \delta Y_{t-1} + \omega I_{t+} + \varepsilon \quad (2)$$

In this model, if the  $\delta$  component is near 1 and significant, then the intervention is a gradual change with a permanent effect. All of my interventions indicated that they should have had gradual, permanent effects.

Table 4 depicts the results of ARIMA (1, 0, 1) modeling of terrorist attacks over time without interventions (Model 1), with the Rome Platform (Model 2), with

Criminalization (Model 3), with the Civil Concord Act (Model 4), and with all of the interventions (Model 5). In each model, positive coefficients indicate an increase in terrorism while negative coefficients represent a reduction in terrorism. To test my first hypothesis (the Rome Platform would lead to a reduction in terrorist events), I would expect to find the Rome coefficient in Model 2 to have a significant and negative value. To test my second hypothesis that stated that the Civil Concord Act would lead to a reduction in terrorist attacks, I would expect to find a statistically significant negative value for the coefficient of Civil Concord in Model 4. Finally, to examine whether there is an effect of the combination of the interventions, Model 5 tests both hypotheses, I would expect to find that the interventions all led to reductions in terrorism at statistically significant levels.

Model 1 represents the base model on which all the rest of the models depend. The autoregressive, moving average, and intercept components are all significant ( $p < .01$ ) and confirms that this is an ARIMA (1,0,1) process. In all of the following models, I am assuming that they follow the same ARIMA (1,0,1) process, so I have listed the values of the intervention, the  $\delta$  value, and the intercept.

In Model 2, the Rome Platform intervention is significant ( $Z = -1.98, p < .05$ ). In model specification, I defined Rome as a gradual, permanent change to the series. Hypothesis 1 was based on the rational choice theory that increasing the benefits of not committing crime or terrorism will make potential criminals or terrorists less likely to engage in illegal behavior. This finding lends support to Hypothesis 1 that the Rome intervention is related to a reduction of terrorist attacks over time. It indicates that the Rome intervention had a significant impact beyond the initial white noise model.

Hypothesis 2 predicted that by offering an amnesty program as an alternative to deterrence, terrorists will be less likely to engage in violent actions. I used Model 4 to test this hypothesis. If Hypothesis 2 were supported, I would expect to find that Civil Concord Act had a negative and significant coefficient. In this model, I modeled the Civil Concord Act as a gradual, permanent change. The Act did bring about a significant decrease in monthly terrorism in Algeria ( $z=-2.66$ ,  $p<.01$ ) and Hypothesis 2 was supported.

In addition to the individual analyses of each intervention, I combined all of the interventions into one, more general analysis. Model 5 depicts the effect of the Rome Platform, Criminalization and the Civil Concord Act on the data series. From this model, it is evident that only Civil Concord Act was marginally related to a significant change in the series ( $z=-3.07$ ,  $p<.01$ ).

In addition to the examination of how the overall terrorist trends were affected by counterterrorist interventions, I wanted to test how the interventions affected the proportion of fatal attacks to the total number. Each of the interventions had an effect on the series of terrorism frequency. The Civil Concord Act and the Rome Platform had the most significant impact. From a policy perspective, it is important to consider methods of mitigating the effect of terrorism, therefore if there are policies that are related to a reduction in the number of deaths, these policies are just as important as any policy related to a reduction in terrorism in general.

Additionally, I am testing the concept of socio-instrumentality that I discussed earlier. In the context of this study, I am using the term socio-instrumentality to combine the ideas of instrumental and social punishment. If the terrorists are considering both

instrumental and social punishments, there should be a general reduction of terrorist attacks following the interventions as well as a reduction in the proportion of fatal to total attacks. The proportion of fatal attacks should decline because of the social consequences of a high number of civilian deaths. With a large number of fatal attacks, it is probable that the terrorist organizations involved would lose the support of the Algerian population. Therefore, if the terrorists are considering the social consequences of losing support from the population, I expect to find that there is a reduction in the proportion of fatal attacks to total attacks.

Like the analyses modeling the frequency of terrorist attacks, the analyses looking at the proportion of fatal attacks is best represented by ARIMA (2,0,0). Again, the data from 1993 were not included because it was not possible to determine how many of the attacks were fatal with the available information. Model 1b depicts the general model for the proportion of fatal attacks. For this series, the AR(1) component is significant ( $z=4.52$ ,  $p<.01$ ) and the AR (2) is significant ( $z=5.01$ ,  $p<.01$ ). Thus, this equation is a good representation of a white noise model. Again, testing the interventions' effect on the series, I examined whether the interventions had an immediate, permanent effect, a gradual, permanent effect, or an immediate, temporary effect. As in the earlier time series analyses, I found that all of the interventions had gradual, permanent effects.

The first intervention examined was the Rome Platform. In Model 2b, it is clear that the first intervention did have a statistically significant impact on the proportion of fatal terrorist attacks ( $z=2.30$ ,  $p<.05$ ). This result indicates that the Rome Platform was related to a statistically significant increase in the proportion of fatal attacks to total attacks. Additionally, this finding is the opposite of what I would have expected to find

and may indicate that the terrorists were not considering the socio-instrumentality of their actions when planning and executing their attacks.

The one policy where I would expect to find the greatest effect on the proportion of fatal attacks is the Civil Concord Act. I expect the greatest effect for this policy because 98% of the Algerian population voted in favor of the act. If terrorists were rationally considering their constituency and the socio-instrumentality of committing terrorist attacks when the opportunity to receive amnesty is available the terrorist should choose to not attack. However, Model 4b indicates that there is no difference in the proportion of fatal attacks after the Civil Concord Act ( $z=.23$ , n.s.).

Finally, looking at all of the interventions in a single model produced no significant changes in the series. Using the proportion of fatal attacks to total attacks did not support the hypotheses that terrorists consider morality of their actions when determining whether to attack and how. Neither Hypothesis 3 nor Hypothesis 4 was supported. In fact, I found the opposite effect in the case of the Rome Intervention.

In passing, it is interesting to examine the traditional RCT belief that criminalization of terrorism will lead to a reduction in terrorism because the potential sanctions will act as an increase consequence of committing the actions, I used Model 3. I modeled Criminalization as a gradual, permanent change. Model 3 indicates that criminalization as marginally significant ( $Z=-1.87$ ,  $p<.10$ ). While RCT would predict that if a rational choice process were occurring there would be a reduction in terrorism after criminalization, there was only a slight change from a white noise model utilizing this intervention. It is also interesting to note that in Model 5, the coefficient for

criminalization change signs which, had it been significant, would indicate that the intervention potentially could have been related to increase in terrorism across the series.

Looking at the criminalization policy, I would expect that if terrorists are considering the policies as a rational actor and taking morality into account, the addition of criminal sanctions should result in the reduction of the proportion of fatalities. From Model 3b, there is a marginally significant increase in the proportion of fatal attacks following the introduction of the criminalization policy ( $z=1.75$ ,  $p<.10$ ). Again, this finding indicates that following the introduction of policies that increased the criminal sanctions for acts involving terrorism, the proportion of fatal attacks increased.

## CHAPTER 7

### Discussion and Conclusions

Throughout this paper I discussed the importance of rational choice making in relationship to counterterrorism in Algeria. From the criminological RCT perspective, I developed two main and two sub-hypotheses about the effect of counterterrorism interventions on the overall terrorism in Algeria as well as the proportion of fatal attacks. To test these hypotheses, I used ARIMA modeling and data collected from open source material and from the Global Terrorism Database. The three interventions that I tested each emphasized a different aspect of rational choice theory. Specifically, I tested whether terrorists consider the benefits of not committing terrorism when faced with the choice of acting. From my analyses, I found support for the amnesty program and the negotiation policy for reducing the frequency of terrorist attacks. Criminalization was also marginally related to a significant reduction in the frequency of terrorist attacks. However, both the negotiation policy and criminalization were related to an increase in the proportion of fatal attacks to total attacks.

First, I examined the Rome Platform, which was a series of meetings and conferences designed to draw the terrorist group FIS into the political process. The intervention was related to a significant reduction in the incidence of terrorism in Algeria. However, the Rome Platform was also related to a significant increase in the proportion of fatal attacks. Essentially, the attacks became more efficient over time. One explanation for the increase in the proportion of fatal incidents was the increased presence of the Armed Islamic Group (GIA). The Bureau of Near Eastern Affairs and the United States State Department reports on Algeria and the 2004 report on terrorism indicate that GIA

was an incredibly prolific and deadly organization (Bureau of Near Eastern Affairs, 2009; United States State Department, 2005). While GIA first emerged in 1993, I do not have the data that would allow me to analyze the fatal attacks that occurred in that year. The increase in fatal incidents following the Rome Platform may be a result of the lack of data prior to the Rome Platform. Additionally, the increase in proportion of fatal attacks could be a reaction to the introduction of the criminalization policy so soon after the introduction of the Rome Platform. The quick transition from an inclusion policy to an exclusion policy could have sent mixed messages to the terrorist organizations. Additionally, the shift could also have indicated that the government was not predictable and the terrorists might not have trusted that they would be allowed to continue to participate in the political process. Enders, Sandler and Cauley (1990) found that a government's predictability was a factor when determining the effectiveness of counterterrorism policies. Rapid shifts could reduce the government's credibility as a deal maker, which could be one of the reasons why the Rome Platform had mixed results.

Second, I assessed the Civil Concord Act. This intervention was an amnesty program that lasted for six months. Arguably, if terrorists were considering the benefits of not committing crime as one of the determining factors as to why they should or should not act, the Civil Concord Act would have been a key policy. This counterterrorism tactic was widely publicized and many Algerians felt that it would bring some relief to the near daily attacks (Thuillier, 1999). The Civil Concord Act was representative of an overall shift in attitude within the Algerian government. As such, I tested the effect of the amnesty program as a representation of an overall government

transition that accepts unconventional counterterrorist policies and offers terrorists alternatives to violence.

When looking at the Act as a transition from punitive policies to alternatives to deterrence, this period is related to a significant drop in terrorist attacks. From a RCT perspective, this finding lends support to the notion of using the benefits of not committing crime or terrorism as a means of reducing crime or terrorism. In the early part of the 21<sup>st</sup> century, the Algerian government took strides to resolve the decade long conflict (International Crisis Group, 2001). Through this policy, the government opened the door to terrorists by offering a political alternative to violence.

Notably, the Civil Concord Act addresses the issue of utilizing amnesty programs to reduce violence as opposed to reuniting a nation after a conflict has ended (Botha, 2008; Gibson, 2002; Truth and Reconciliation Commission, 1998; Vicente, 2003). The majority of amnesty programs such as the Truth and Reconciliation Commissions (TRCs) in Chile, South Africa, and Uganda have been used to rebuild trust in a nation after a period of conflict and human rights violations that would not have been addressed had the TRCs not been in place (Lamin, 2003; Vicente, 2003). Within the literature on TRCs, authors have discussed the importance of victims of violence receiving justice while ensuring a stable, democratic government (Gibson, 2002; Lamin, 2003; Vicente, 2003).

While amnesty programs and TRCs are intended to repair the damage of violence and human rights abuses, very few TRCs were used to *motivate* the cessation of violence. The Sierra Leone TRC in particular was similar to the Civil Concord Act in that they were both aimed at finding peace in a seemingly unending civil war (Lamin, 2003). However, unlike Algeria's Civil Concord Act, Sierra Leone's TRC granted blanket

amnesty in exchange for disarmament and demobilization. This distinction is important because the Civil Concord Act addressed both the reparation of harm by ending the violence and also promoting justice by not offering amnesty for the most severe crimes. The political shift represented a government commitment to peace. Future research should examine the 2005 Charter for Peace and National Reconciliation amnesty program to determine if there is a similar reduction in violence.

Finally, I looked at the criminalization policy which created sentence enhancements for acts of terrorism. In criminological literature, rational choice theory has traditionally focused on increasing the consequences of committing crime or terrorism as a means of deterring potential criminals or terrorists. My analyses of Algeria's criminalization policy revealed that there was only a marginally significant effect on both the frequency of terrorism and the proportion of fatal attacks. Not only did attacks not decline, there was lack of significance at the  $p < .05$  level in the spike in attacks in late 1997 into early 1998. During this period, GIA and the Salafist Group for Preaching and Combat (GSPC) split from one another. GSPC initially split from GIA due to GIA's gruesome tactics and refusal to cease attacking Algerian civilians (Boudali, 2007). This schism in conjunction with the massacres during Ramadan 1997-1998 are likely the cause of the spike in activity during this period. However, future research should examine the group relationships following the split of GIA and the GSPC.

While it is interesting that the traditionally deterrent policy, an increase in penalties for acts of terrorism, was only related to a slight drop in terrorism and a slight increase in the proportion of fatal attacks. In the model with all of the interventions in place, it is striking that the Civil Concord Act maintained its significance as an

intervention that reduced terrorism. These findings point to the importance of examining alternatives to traditionally deterrent models.

In sum, my findings indicate that there is some support for a rational choice perspective for utilizing counterterrorism measures in Algeria. Traditionally deterrent policies, such as criminalization, were ineffective and policies that would increase the benefits of not committing terrorism were successful. Other studies have found that terrorists will often respond to counterterrorist policies with a backlash effect and commit more attacks (Brophy-Baermann & Conybeare, 1994; Davis & Jenkins, 2004; Enders, Sandler & Cauley, 1990; LaFree, Dugan & Korte, 2009; Lum, Kennedy & Sherey, 2006). In this study terrorist attacks steadily declined after political alternatives to violence were enacted. This finding lends some hope to the effectiveness of future interventions.

### *Implications*

From a theoretical perspective, my findings indicate that criminologists have been negligent when focusing their investigations only on the punishment aspect of Rational Choice Theory as opposed to examining both the benefits of non-crime and the consequences of committing crime. In this study, the traditional deterrent policy of criminalization was not related to any significant change in the frequency of terrorism. However, the Civil Concord Act, which emphasized the benefits of not committing violence by offering amnesty to terrorists who willingly laid down their arms, was related to a significant decrease in the frequency of terrorism overtime. The Rome Platform, another alternative to traditionally deterrent policy, was also related to a decrease in terrorism. The combination of the two alternatives to strictly deterrent policies points to a

need for more research into what types of benefits for non-violence are related to the best outcomes for counterterrorist interventions.

Additionally, my findings suggest that policy makers should consider utilizing non-traditional deterrent policies that increase the benefits of not committing violence. The success of the Civil Concord Act as a political shift from a punishment perspective to a more reconciliatory policy of seeking amends for the violence may be successful in other nations faced with terrorism. Many countries that have had long histories of human rights issues and political violence have used amnesty programs as a means of reuniting a nation following the cessation of violence (Gibson, 2002; Truth and Reconciliation Commission, 1998; Vicente, 2003), but few have used amnesties and Truth Commissions to end violence (Lamin, 2003) and even fewer have used amnesties to end terrorism (Botha, 2008; Jiménez, 1993). Algeria's success with the Civil Concord Act demonstrates the benefits of utilizing multiple strategies for solving a complex issue like terrorism. While amnesties may not lead to success in all nations, they should be considered as a viable option within a nation's counterterrorist policy.

Finally, in the wider context of the criminal justice system, the findings indicate the importance of considering restorative justice programs as a means for solving crime problems. In their meta-analysis of restorative justice, Latimer, Dowden, and Muise (2005) describe the premise of a restorative as seeing crime as "a violation of people and relationships...rather than merely a violation of law." Restorative justice, in turn, seeks to involve the offender, the victim and the community where the action occurred to come to terms with the action and discuss a way to move forward from the action. The authors found in their meta-analytic study that recidivism decreased following the use of

restorative justice tactics. However, more studies should examine the usefulness of restorative justice as a tactic for both fighting crime and terrorism and repairing the harm caused by crime and terrorism.

#### *Limitations and Suggestions for Future Research*

While I believe that I have used the best data currently available to study Algerian terrorism there are a number of limitations to my study. Like many examinations of rational choice making, in the data that are available, there are no systematic ways of measuring how much the terrorists weighed the implications of each intervention. Qualitative interviews with members of the terrorist groups in Algeria would provide insight into how much the groups considered a cost-benefit analysis when planning their attacks. A further concern is the lack of information available as to how many terrorists took advantage of the Civil Concord Act. Reports indicate that approximately 6,000 terrorists took advantage of the amnesty program (Botha, 2008), but there are currently no systematic reports on the circumstances surrounding their surrender.

Arguably, the Civil Concord Act could be called a success because it was related to a reduction in the amount of terrorists operating in the country. By comparison, according to the Terrorist Organization Profiles Database (TOPs), the Basque terrorist group ETA had 300 members and the Provisional Irish Republican Army (PIRA) had approximately 1,000 members. These numbers indicate both the size of the terrorist problem in Algeria and the success of the amnesty program. There were terrorists who did not turn themselves in during the amnesty program. Notably, the GSPC (a splinter group of GIA who later aligned with Al-Qaeda) criticized the terrorists who utilized the amnesty; however around 6,000 terrorists took advantage of the reduced sentencing

program. Data in the TOPs database currently estimates the number of active terrorists in Algeria at around 400—less than a tenth of its original strength. However, there are no good estimates of how many terrorists were operating in Algeria before the intervention to determine how significant 6,000 terrorists are to the total operation (Botha, 2008). The estimates above give some approximation of the amnesty program's success, but if there were better data on the dynamics of the surrender and the amount of terrorists, analyses of the interventions' effectiveness could be better measured.

As a result of the success of the Civil Concord Act and the failure of criminalization, future research should look at other counterterrorist policies in Algeria such as the Charter for National Peace and Reconciliation (Botha, 2008). The Charter for National Peace and Reconciliation was not used in this study because it occurred in 2005 and outside the span of the current data. This intervention would be important to examine because it offered a more general amnesty for the terrorists in Algeria and represented continued belief in non-punitive means to end terrorism.

Finally, it would be interesting to study the support for terrorists and the terrorists' cause over time in Algeria. Polls taken at the time that the Civil Concord Act was instituted indicated overwhelming support for the introduction of the amnesty program. Researchers should examine any surveys or polls from the time period and conduct follow-up surveys on whether respondents thought that the amnesty programs would bring an end to the country's terrorism and how their opinion of the terrorists' goals changed over time. These surveys might be able to measure changes in radicalization tendencies, which is of growing importance to governments around the world.

Unlike many studies of counterterrorist interventions that arrive at bleak conclusions, I present a more hopeful outlook for the way forward with counterterrorism policies. The Algerian government, an emerging North African democracy in the midst of a near civil war, was able to successfully reduce terrorism throughout their country. More importantly, through a successful amnesty program, they were able to reduce terrorism without further bloodshed. Within criminological research, my study presents a modification of traditional studies of rational choice theory. I have shown that terrorists are motivated by receiving the benefits of not committing terror, not simply by avoiding punishments. Future researchers should emphasize the importance of what objects or concessions can serve as motivating factors to utilize non-violent means of achieving economic, social, religious, or political goals.

## TABLES

Table 1. Imputation of 1993 Attacks

<b>Month</b>	<b>Freq</b>	<b>Proportion of Total Attacks</b>	<b>1993 Proportional Attacks</b>	<b>1993 Attacks</b>
January	151	0.0931	28.953	29
February	137	0.0845	26.268	26
March	157	0.0970	30.103	30
April	77	0.0475	14.764	15
May	124	0.0764	23.776	24
June	122	0.0752	23.392	23
July	132	0.0813	25.309	25
August	188	0.116	36.0469	37
September	145	0.0894	27.802	28
October	137	0.0845	26.268	26
November	111	0.0684	21.283	21
December	141	0.0869	27.035	27
<b>Total</b>	<b>1622</b>	<b>1</b>	<b>311</b>	<b>311</b>

Table 2. Periods of the Three Interventions

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<b>Intervention</b>	<b>Active Period</b>
Rome Platform	9/1994-2/1995
Criminalization	3/1995-7/1999
Civil Concord Act	8/1999-2/2000

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Table 3. Frequency of Attack and Proportion of Fatal Attacks by Year.<sup>3</sup>

<b>Year</b>	<b>Frequency of Attack</b>	<b>Proportion of Fatal Attacks</b>
1991	19	0.2023
1992	231	0.5730
1994	226	0.7907
1995	185	0.8082
1996	130	0.7808
1997	339	0.8772
1998	141	0.8499
1999	113	0.9390
2000	81	0.7385
2001	66	0.8171
2002	54	0.8642
2003	26	0.9583
2004	11	0.9167
<b>Total</b>	<b>1622</b>	<b>0.7782</b>

<sup>3</sup> Data from 1993 are excluded from this table because the frequency of fatal attacks is not available.

Table 4. Model of Terrorist Incidents over Time.

	<b>Variable</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Z</b>	<b>p</b>
<i>Model 1</i>	AR (1)	.961	.029	32.61**	.000
	MA(1)	-.588	.070	-8.40**	.000
	Intercept	1.81	.542	3.34**	.001
<i>Model 2</i>	Rome	-.081	.041	-1.98*	.047
	$\delta$	.970	.026	37.80**	.000
	Intercept	.119	.060	2.00*	.046
<i>Model 3</i>	Crim	-.0784	.392	.10	.917
	$\delta$	.966	.027	-1.87	.061
	Intercept	.124	.789	2.39*	.017
<i>Model 4</i>	CivConPerm	-.143	.054	-2.66**	.008
	$\delta$	.921	.037	25.06**	.000
	Intercept	.219	.093	2.36*	.018
<i>Model 5</i>	Rome	-.164	.109	-1.51	.132
	Crim	.108	.098	1.10	.273
	CivConPerm	-.083	.027	-3.07**	.002
	$\delta$	.956	.018	54.50**	.000
	Intercept	.171	.047	3.68**	.000

\*\* significant at  $p < .01$  \* significant at  $p < .05$  † significant at  $p < .10$

Note: “Rome” represents the Rome Platform, a six-month period in which parties within Algeria included the Islamic Salvation Front in political discussions. For the purposes of this analysis, the Rome Platform begins in September 1994 and ends at the end of the series. “Crim” is the Criminalization variable and represents the period from February 1995 through June 1999 when terrorism was criminalized and terrorist convictions carried heavier sentences. However, the effect in this analysis begins in February 1995 and continues until the end of the series. “CivConPerm” represents the overall policy shift that occurred with the Civil Concord Act. This variable begins in August 1999 and ends in December 2004.

Table 5. Model of Proportional Fatal Incidents over Time.

	<b>Variable</b>	<b>Coefficient</b>	<b>Standard Error</b>	<b>Z</b>	<b>p</b>
<i>Model 1b</i>	AR (1)	.342	.076	4.52**	.000
	AR (2)	.336	.067	5.01**	.000
	Intercept	.560	.046	12.10**	.000
<i>Model 2b</i>	Rome	.050	.021	2.39**	.017
	$\delta$	.661	.060	10.97**	.000
	Intercept	.156	.026	5.90**	.000
<i>Model 3b</i>	Crim	.033	.019	1.75†	.081
	$\delta$	.692	.059	11.73**	.000
	Intercept	.154	.027	5.74**	.001
<i>Model 5b</i>	CivConPerm	.003	.014	.23	.818
	$\delta$	.760	.047	16.03**	.000
	Intercept	.139	.026	5.37**	.000
<i>Model 6b</i>	Rome	.056	.480	1.16	.246
	Crim	-.005	.046	-.10	.919
	CivConPerm	-.005	.015	-.30	.765
	$\delta$	.664	.060	11.00**	.000
	Intercept	.155	.026	5.86**	.002

\*\* significant at  $p < .01$  \* significant at  $p < .05$  † significant at  $p < .10$

Note: Months where there were no terrorist attacks were not included in this analysis.

## FIGURES

Figure 1. Frequency of Terrorist Incidents and Counterterrorist Interventions.

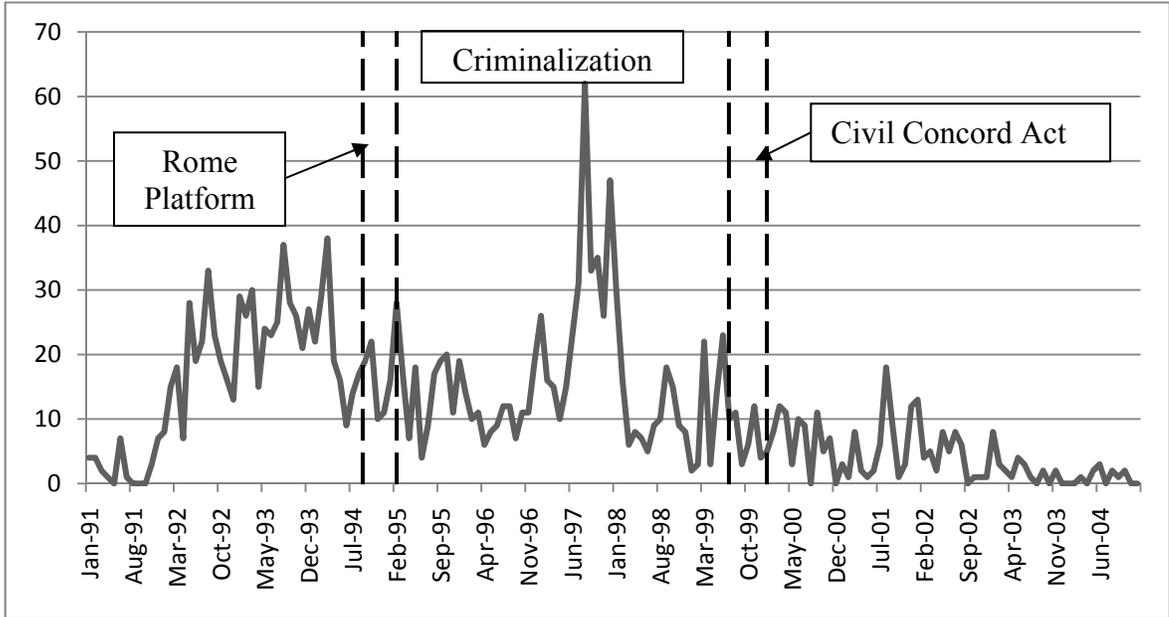
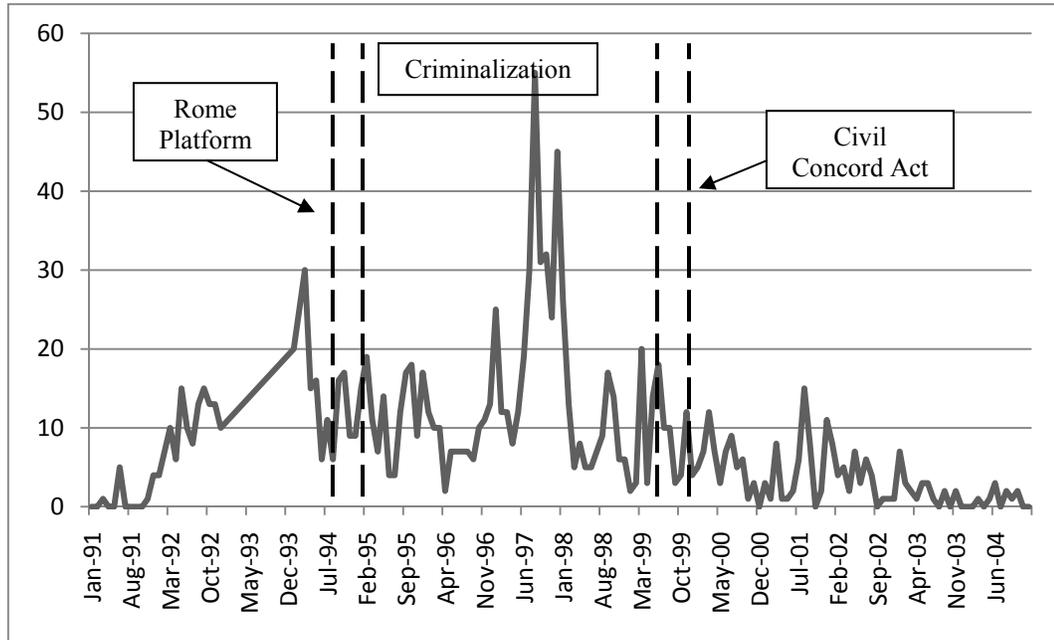


Figure 2. Fatal Terrorist Incident Frequency and Counterterrorist Interventions.



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