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## **Extreme Ideologies, Situational Factors, and Terrorists' Target Selection**

Evan Mudgett  
*University of Arkansas, Fayetteville*

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Extreme Ideologies, Situational Factors, and Terrorists' Target Selection

A thesis submitted in partial fulfillment  
of the requirements for the degree of  
Master of Arts in Sociology

by

Evan Mudgett  
University of Arkansas  
Bachelor of Arts in Criminology, 2018

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University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

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Jeff Gruenewald, Ph. D.  
Thesis Director

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Christopher A. Shields, Ph. D.  
Committee Member

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Grant Drawve, Ph. D.  
Committee Member

## **Abstract**

The purpose of the current study is to examine how ideology and situational factors shape terrorist target selection in the United States. While a growing number of studies have examined target selection by terrorists, the current study is the first to consider how combinations of factors present situated opportunities for terrorists to select particular types of targets as opposed to others. Guided by the situational crime prevention approach, this study relies on data from the American Terrorism Study (ATS) to measure attributes of incidents perpetrated by far-right and Islamic extremists and target selection. The outcomes of interest include government versus citizenry targets and human versus non-human targets. Bivariate and multivariate statistical tests are used to examine how ideology and situational factors statistically predict target selection. In addition, conjunctive analysis of case configurations (CACC) is used to examine how configurations of key factors are more or less associated with the selection of particular target types. Findings indicate that ideology and weapon type were two of the most significant factors associated with target selection by terrorists. The results of the CACC also revealed that some configurations of ideological and situational factors resulted in increased or decreased chances that terrorists would select one type of target over another, highlighting the interconnectedness of factors shaping target selection. This study concludes with implications for terrorism prevention and suggestions for future research.

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## **CHAPTER ONE**

### **Introduction**

Mass casualty events such as the 1995 Oklahoma City bombing and the 9/11 terrorist attacks sparked the conversation on domestic terrorism in the United States. While scholarly research on terrorism began to increase in the late 1970's and 1980's, a series of high-profile terrorism events occurring around the turn-of-the-21st-century resulted in exponential growth in terrorism research (LaFree et al., 2014; Smith et al., 2008). With the United States facing continued threats of violence from the extreme far-right and Islamic extremists (Ebner, 2017; Freilich et al., 2018), one growing area of terrorism research is examining the factors that shape target selection.

Consensus definitions of terrorism remain elusive (Borum, 2014; Ganor, 2002; Kundnani, 2012; Sedgwick, 2010), but most researchers and policymakers agree that terrorism is unique from more routine crimes in that the targets are often symbolic of a larger political or social motive. High-profile cases highlight some of the key factors shaping the target selection process. For example, anti-government extremist Timothy McVeigh selected the Alfred P. Murrah Federal Building in Oklahoma City, Oklahoma for his attack because it housed multiple federal and state government agencies. Along with political symbolism, practical implications like target location and accessibility to certain types of weapons may also shape target selection decisions. In June of 2015, white supremacist Dylan Roof entered the Charleston South Carolina Emanuel African Methodist Episcopal Church and killed nine African Americans attending Bible study. One year later, ISIS supporter Omar Mateen opened fire at a gay nightclub in Orlando, Florida, killing almost 50 clubgoers and injuring many more. In both attacks, targets were assessed as vulnerable by terrorists, easily accessible with no physical security measures or



measures that could be easily subdued. Moreover, both targets were attractive to terrorists because they were occupied with a large number of unarmed civilians who represented social minority groups demonized by terrorists' ideologies.

Prior research has found that several factors help to shape terrorists' selection of targets, including ideology (Ahmed, 2018; Asal et al., 2009; Becker, 2014 Drake, 1998, Hoffman, 1998) and an increasing desire to attack "softer" targets (Sandler, 2014). Less is known, however, about other potential situational and background factors that might shape target selection. Thus far, researchers have explored target selection by a single type of terrorist such that how target selection compares across ideological motives remains unclear. In addition, prior research on terrorist target selection have conceptualized potential factors shaping target selection as independent of one another. It is likely, however, that those factors shaping target selection do not operate in isolation but instead in combination to attract or deter terrorists.

### **The Current Study**

The purpose of this study is to examine how combinations of event-level factors, including situational and target-specific attributes, influence terrorist target selection by extreme far-right and radical Islamic terrorists. The framework of the study is guided by situational crime prevention (SCP), which has been used by criminologists for decades to understand and reduce opportunities for crime to occur (Clarke, 1980). Previous work has tended to conceptualize elements of criminal and terrorist opportunity (e.g., exposure, security, weapon use, etc.) in isolation. In contrast, the current study draws from data provided by the American Terrorism Study (ATS) to investigate how elements of terrorist opportunity operate in combination to shape terrorist decision-making about target selection. More specifically, this study draws from Clarke & Newman's (2006) conceptualizations of target vulnerability and attractiveness to better

understand how particular target attributes shape whether they will be selected by terrorists. Also of interest will be how terrorist co-offending, weapon sophistication, and the distance travel to commit attacks increase the likelihood that particular types of targets will be selected. The study will seek to answer the following research questions:

**Research Question 1** - How do situational factors and target-specific attributes of attractiveness shape terrorists' target selection?

**Research Question 1a** - How do particular combinations of situational factors and measures of target attractiveness shape terrorists' target selection?

The analysis for the study occurs in two steps. First, I examine the statistical relationships between elements of terrorist opportunity and target selection of targets for both extreme far-right and radical Islamic terrorists based on a series of binary logistic regression models. Second, I explore how various combinations of event-level factors are more or less associated with different target types using analytical techniques of Conjunctive Analysis of Case Configurations (CACC or "conjunctive analysis").

## CHAPTER TWO

### Theoretical Orientation and Literature Review

Early sociological and criminological theories of crime sought a more informed understanding of the underlining causal mechanisms leading to criminal behavior. In the late 19th century, social theories focused on biological determinism, examining how biological markers inherent from birth influence criminal propensity. Cesare Lombroso (1876) argued that criminals were atavistic or biologically different than non-criminals. By the early to mid 20th century, scholars were studying how the social makeup of communities and the inability to attain the American dream were fueling crime (Merton, 1938; Shaw and McKay, 1942). While these theories were important in understanding the underlying mechanisms that push and pull individuals to commit crime, some environmental scholars argued that prominent social theories of crime ignored the role of place in shaping the occurrence of crime.

In response, the Chicago School began studying how place shaped the nature of crime (Park and Burgess, 1925; Shaw and McKay, 1942). Chicago was a rising urban center at the time, leading scholars to see the city as an ideal setting to study how the urban environment impacts the social world. Analyzing the urban impact on society, Parks and Burgess (1925) noticed unique areas within the urban city and developed areas known as concentric zones. Zones such as the central business district and the working-class zone were unique in the social makeup of the area and thus were impacted by society differently. Examining the environmental characteristics of immigrant neighborhoods around Chicago, Shaw and McKay (1942) proposed that poverty, residential stability and ethnic heterogeneity were high correlates of crime and delinquency. This became known as social disorganization theory, which displayed the importance of examining the spatio-temporal variability of crime.

By the early 1970s, crime control strategies such as deterrence and rehabilitation were beginning to be viewed as largely unsuccessful. The term environmental criminology was first introduced by C.R. Jeffrey in 1971, when he insisted that the focus of crime prevention should be on stopping crime before it ever occurs. Environmental criminology focuses on the acts of crime and how the surrounding built environment influences opportunities to commit crimes. One example of an environmental theory applied to crime is Crime Prevention through Environmental Design (CPTED) (Jeffrey, 1971), which emphasizes how the built environment, such as street lights, can impact the likelihood of crime to occur at a certain place or time of day. Another popular application of environmental criminology is known as hot spot analysis, which describes the concentration of locations and patterns of criminal activity (Sherman et al., 1989). Based on this approach, police agencies across the world have developed strategies known as hot spot policing which allows agencies with limited resources to target hot spot areas where they believe crime is most likely to occur. The following sections cover the three main theoretical branches of environmental criminology, including 1) rational choice theory, 2) routine activities theory, and 3) crime pattern theory.

### **Rational Choice Theory**

Rational Choice theory has its roots in the 18th century in what is considered the classical period of criminology with the work of Cesare Beccaria. Beccaria (1764) argued that individuals act in their own self-interest and evaluate the costs and benefits of committing crime. Crime is thought to be a choice of free-will and the best way to deter individuals from crime is through swift and severe punishment. Robert Keel (1997) describes the central themes of classical theory as human beings behaving as rational actors that freely choose their behavior, whether it is

engaging in conforming or deviant behavior. Rationality involves a calculation of cost benefit, weighing pleasure versus pain, and individuals typically chose decisions to maximize their own individual pleasure.

After the emergence of competing schools of thoughts, the classical period laid dormant for many years until it was revived again in the 1980's. Researchers began questioning the decision-making process of offenders and how it functions. Cornish and Clarke (1985/1986) introduced their version of rational choice theory, arguing that while individuals seek to maximize the benefits and minimize the costs, they are not perfectly rational in their decision making. Instead they are limited in scope by time and the availability of relevant information within the decision-making process. This addition to the theory becomes known as "bounded rationality." Cornish and Clarke used this revised theory to better understand crime displacement, or the relocation of crime from one area to another as a result of policies and police intervention. They also argued that the decision-making process is crime specific, meaning that it can change depending on the types of crime (Cornish and Clarke, 1987).

Rational choice theory has faced criticism, with opponents arguing that offenders are often impulsive and commit crimes spontaneously without planning or weighing out the costs and benefits (Benson and Sams, 2013; Carmichael and Piquero, 2004). In examining the illegal purchase of tobacco products by minors, Ogrady (2011) critiques rational choice theory by suggesting that not all offenders are rational beings. For example, Not Criminally Responsible on Account Due to Mental Disorder (NCRMD) offenders are deemed irrational in the eyes of the courts and are therefore not legally responsible for their actions. Proponents of rational choice theory argue that rationality is broad by definition and crimes that may seem against the self-

interest of the offender often have benefits that are intangible such as excitement or status advancement (Cullen et al., 2006).

### **Routine Activities Theory**

Routine activities theory (Cohen and Felson, 1979) operates under the assumption that rational people are shaped by available opportunities within particular environments. Specifically, routine activity theory assumes that offenders are usually rational beings that weigh the costs and benefits of criminal activity and seek to maximize personal gain. Routine activity theory contains elements of both a macro and micro level theory. The macro-level approach examines how the daily activities and patterns of movement within society impact rates of crime and trends, while the micro-level approach examines the situation in which crime is likely to occur

Cohen and Felson relied on this approach to examine changes in daily activities of society post World War II. After World War II there was a dramatic change in the number of women in the workforce. The increased number of women with jobs outside of the home left houses empty for longer periods of time during the day. This also meant that more people were out in the community and coming into contact with others, thus increasing the opportunity for crime to occur. Cohen and Felson developed three elements that are all required for a crime to occur, including a 1) motivated offender that comes in contact with a 2) suitable target in the 3) absence of a capable guardian. If one of these three elements is absent, opportunities for crime decrease.

Upon further development of the three main components of routine activities theory, Felson and Cohen (1980) describe a motivated offender as having “criminal inclinations and the

ability to carry out those inclinations” (Felson and Cohen, 1980, p.392). Having the intentions to commit crime is not enough but the offender must also have the means to act on their intentions. In describing a suitable target, Felson and Cohen develop four key elements: Value, Visibility, Access and Inertia. Value represents the symbolic importance of the target while visibility is the likelihood that the offender will be caught by law enforcement. Access measures the availability of routes to and from the target and inertia measures the factors that impact the difficulty to commit crime. Finally, capable guardians are able to oversee and protect potential targets (Felson and Cohen, 1980).

### **Crime Pattern Theory**

A third influential theory under the umbrella of environmental criminology is Brantingham and Brantingham’s (1990) theory of crime patterns. Building from the assumptions of both rational choice and routine activities, the authors argue that crime does not occur randomly but instead occurs in patterns of concentrated areas. These areas of crime are defined as the place where the activity space of a motivated offender intersects with a target location. Activity spaces are common areas such as home, work or other commonly traveled areas such as shopping centers (Brantingham and Brantingham, 1990).

Brantingham and Brantingham argue that just like nonoffenders, criminal offenders move in routine patterns to similar places throughout their day. The surrounding areas an offender encounters on their movement from place to place is known as the offender’s awareness space. While moving throughout their day, offenders become exposed to opportunities to commit crimes within their awareness space. These areas where offenders come into contact with opportunities to commit crimes are where crime is likely to occur. As such, areas outside of the

routine movements of offenders are less likely to be areas of criminal activities (Brantingham and Brantingham, 1990; Eck and Weisburd, 2015).

### **Situational Crime Prevention**

Building on the assumptions of rational choice, routine activities, and crime pattern theories, Ronald Clarke (1980) developed an application of these theories known as situational crime prevention (SCP), with the ultimate goal of reducing the opportunity of crime. Similar to that of Cohen and Felson (1979), Clarke critiques the scope of traditional theories of crime in that they are focused heavily on the dispositions or motivations to commit crime rather than the choices made by an offender when presented with the opportunity to commit crime. Thus, situational crime prevention is focused more on the setting(s) of opportunities of crime rather than the motivation of those committing crime. SCP places less emphasis of crime prevention by way of the criminal justice system and focuses more on the surrounding built environment. For example, adding security monitoring systems to businesses or placing bars on windows are measures that private citizens can implement to reduce opportunities for crime (Clarke, 1997).

In further developing his strategy, Cornish and Clarke (2003) argues that situational crime prevention seeks to reduce crime by making the commission of crime less attractive. They propose that this is done in five ways: (1) increasing the difficulty of crime, (2) increasing the risk of getting caught, (3) reducing the rewards of offending, (4) by removing excuses for offending, (5) reducing temptations and provocations of committing crime. With each of these five strategies, Cornish and Clarke developed five direct techniques which became known as the 25 techniques of situational crime prevention. Current research on crime displacement has shown situational crime prevention to be an effective application to reducing crime (Guerette and Bowers, 2009; Weisburd et al., 2006).



## **Situational Crime Prevention and Terrorism**

Traditionally, situational crime prevention has been focused on routine forms of street crime, however, in their book “Outsmarting the Terrorist” Clarke and Newman (2006) call for the application of situational crime prevention to terrorism. While the motivation between criminals committing typical offenses (e.g., burglary, assault, etc.) and those committing terrorist attacks might vary drastically, Clarke and Newman argue that the core tenets of environmental criminology are also applicable to terrorism prevention.

Previous research comparing terrorism and other crimes has focused on five main differences: (1) the motivations for crime and terrorism are vastly different, (2) terrorists are much more determined than criminals, (3) terrorism requires much more planning and is less opportunistic than most crime, (4) terrorism depends on external funding, and (5) terrorism involves much larger-scale acts and can only be committed by organized groups (Clarke and Newman, 2006). Clarke and Newman argue against these differences, suggesting that the differences between terrorism and other crimes are actually few. They claim many terrorists are motivated by peer pressure or a sense of belonging, similar to other forms of crimes. They also argue that planning is no less complicated for terrorism attacks as sophisticated robberies, as they both rely heavily on planning and preparation. Finally, terrorism is not always large scale, as many attacks are on individuals or small groups as is traditional crimes and terrorists often turn to traditional crimes to secure their own funds rather than relying on external funding (Clarke and Newman, 2006).

Clarke and Newman identify four pillars of the terrorism opportunity structure: targets, weapons, tools and facilitating conditions. Examples of targets include a seemingly endless number of places/people such as government facilities, businesses, or individuals that appear

attractive to attack. Not all potential targets appear equally attractive to terrorists, therefore it is unnecessary and practically impossible to equally protect all targets with situational crime prevention strategies. Instead, the most vulnerable targets need to be identified and prevention strategies focused towards them.

Weapons play a vital role in both the availability of opportunities and types of potential targets terrorists can feasibly attack. The method of attack and the potential destruction of their ideological crime are in large part dependent on the weapon used. Weapon choice can depend on the level of resources available to the individual or terrorist organization as well as the level of knowledge it takes to use certain weapons. For example, improvised explosive devices (IEDs) require a certain skill set to build and detonate in comparison to other weapons such as handguns. Clarke and Newman (2006) argue that the most important feature of weapon choice is how easily obtainable it is. This helps explain why small arms and improvised explosives are popular among terrorists, because they are relatively easy to obtain. Reducing the availability of certain weapons is one step that law enforcement can take in reducing opportunities of terrorist attacks.

While targets and weapons are the two primary pillars of terrorist opportunity, tools and facilitating conditions play a less, but still important role. Tools include everyday items such as vehicles, identification badges or credit cards that are needed to carry out the planned attack. While these items are necessary in everyday life, Clarke and Newman argue that most of the tools are gathered through illegal means. If law enforcement can intercept terrorists as they are illegally collecting tools or make them less easily obtainable, they can in theory reduce opportunities of attack. Finally, facilitating conditions are certain societal conditions that generate favorable opportunities for crime. For example, policies, or a lack thereof, on firearm

controls are a facilitating condition shaping opportunities to gather firearms for an attack. Similar to targets, it is impossible to address and manage every facilitating condition. Identifying critical conditions that are amenable to change while providing the most preventative benefits is critical for counterterrorism efforts (Clarke and Newman, 2006).

Criminologists have begun to apply situational crime prevention to specific crimes including terrorism. Clark (2009) examined the threat of bioterrorism attacks within the United States. He focused on weapons as a pillar of opportunity and concludes that the threat of biological weapons being used against the United States is minimal as it is extremely difficult to develop and unlikely to be used in a mass casualty attack (Clark, 2009). In another study, Yun (2009) focuses on another of the four pillars, examining how situational factors influence international terrorist organizations to commit kidnappings. Researchers have also applied situational crime prevention to violent attacks comparing suicide and non-suicide attacks and assassinations (Gruenewald et al., 2018; Mandala and Freilich, 2017). Not all terrorism incidents examined through a situational crime prevention framework are violent in nature, as Belli and Freilich (2009) apply this approach to non-violent tax related crimes committed by the extreme far-right.

### **Target Selection**

Previous research on target selection in the context of terrorism has been focused on four main characteristics: vulnerability/risk assessment, ideology, group structure, and the planning process.

## **Vulnerability/Risk Assessment**

The first pillar of opportunity that Clarke and Newman (2006) discuss is target selection. While most people or places could theoretically be a target of a potential attack, it is impractical to be able to protect all targets. Instead, they argue priority needs to be given to targets that appear more attractive to terrorists and thus are at a higher risk of being selected for an attack. In order to better understand what makes an attractive target, Clarke and Newman (2006) developed the acronym EVIL DONE encompassing target attributes: Exposed, Vital, Iconic, Legitimate, Destructible, Occupied, Near and Easy. Each feature of a specific location is given a score and targets with a higher score are seen as more vulnerable and attractive to future attacks than those with a lower score (Clarke and Newman, 2006).

Boba (2009) further expanded Clarke and Newman's conceptualization of EVIL DONE, by developing a measurement scheme to assess the level of risk to individual targets. More specifically, she created a 5-point scale for each of the EVIL DONE features. The combination of scores from each of the features provides the overall vulnerability score for each individual target (Boba 2009). More recently, researchers have used Boba's scale in measuring the attractiveness of targets across different ideologies and places. For example, EVIL DONE measures have been used to assess the attractiveness of targets selected by eco-terrorists in the United States (Gruenewald et al., 2015). In addition, Ecki and colleagues (2008) applied the EVIL DONE model to targets in Istanbul, Turkey.

## **Ideology**

Research has shown ideology to be an important contributing factor in regards to target selection (Ahmed, 2018; Asal et al., 2009; Drake, 1998; Hoffman, 1998). As a result of this, criminologists have begun to apply situational crime prevention, focusing specifically on a single

ideological category or comparing two major ideological categories. For example, researchers have applied situational crime prevention focusing only on the extreme far-right movement (Belli and Freilich, 2009; Klein et al., 2016) and eco-terrorists. Gruenewald also compared incident factors between far-right and Islamic extremists (Gruenewald et al., 2018). Focusing on a single ideology or comparison between two ideologies allows for scholars to identify other potential factors influencing target selection within certain ideological groups or compared across groups.

### **Group Structure and Plan Cycle**

The size and structure of terrorist groups can influence the amount of resources and knowledge applied to a terrorist plot. Focusing on lone wolf terrorists, Becker (2014) finds that, in comparison to larger organizations, lone wolves are restricted by the weapons they have available to use. While the majority of terrorist organizations use explosives to commit attacks, lone wolves predominately relied on firearms. This has a direct impact on the type of targets being selected based in part on the level of destruction that can be caused with the available weapons (Becker, 2014). While examining leadership roles amongst militant groups in the Middle East and Northern Africa, Abrahams and Potter (2015) found that militant groups with leadership deficiencies were more likely to target civilians than those with more centralized leadership and organized command. These studies demonstrate the importance of group structure and how it can impact the targets that terrorists select to attack.

The planning process is another important factor when considering target selection. In examining auto-biographies of terrorists, Gill and colleagues (2018) examine factors of decision making when it comes to planning and committing incidents. Their findings suggest variance in the planning process are a result of the complexity of the planned attack as well as their

awareness of counterterrorism efforts. For example, one offender considered himself an “alert opportunist” only “half-looking for vulnerable targets” while another offender spent a much longer time planning his attacks, whom “never stopped looking for military targets” (Gill et al., 2018 p.3)

Based on the review of the current literature, there are a few gaps in the research that the current study seeks to fill. When examining target selection by terrorists, prior research has generally focused on predicting how target selection influences the ultimate success of incidents. There has yet to be a study that seeks to predict target type as the outcome variable, measuring how the background and situational factors vary across target types. In addition, most studies on target selection focus on factors shaping the decision-making process independently, while there is less known about how these variables and factors operate in combination within particular contexts. I also concur with Morris (2015) who suggests there is limited research that examines the environmental factors that make targets appear more attractive and vulnerable to terrorist attack. The current study seeks to add to the growing body of research on terrorist target selection by examining how situational and other environmental factors shape target selection across extreme far-right and Islamic extremists’ plots.

## CHAPTER THREE

### Current Study

Using situational crime prevention as a guiding framework, the purpose of this study is to examine the situational characteristics that shape target selection of terrorist attacks in the United States. In addition, I will compare situational factors shaping target selection decision-making for terrorists associated with the extreme far-right and Islamic extremism, as they currently pose the most serious threat to the United States. The current study will seek to answer two main questions:

**Research Question 1** - How do situational factors and target-specific attributes of attractiveness shape terrorists' target selection?

**Research Question 1a** - How do particular combinations of situational factors and measures of target attractiveness shape terrorists' target selection?

Using situational crime prevention as a guiding framework, the current study seeks to answer the research questions with the five main hypotheses related to how target selection is shaped by situational incident characteristics. While measures of target attractiveness are included within the study to explore the relationship with target selection, I have not included them in the hypotheses as there is little prior research to help guide my research expectations.

**H1** Islamic extremists are more likely to select government than citizenry targets in comparison to far-right extremists.

**H1a** Islamic extremists are more likely to select human targets than non-human targets in comparison to far-right extremists.

**H2** The higher the weapon sophistication used, the more likely terrorists will select a government target instead of citizenry.

**H2a** The higher the weapon sophistication used, the more likely terrorists will select a human target than non-human target.

**H3** Groups are more likely to select government targets than citizenry targets in comparison to terrorists operating alone.

**H3a** Groups are more likely to select human targets than non- human targets in comparison to terrorists operating alone.

**H4** The longer the planning cycle, the more likely terrorists will select a government target instead of citizenry.

**H4a** The longer the planning cycle, the more likely terrorists will select a human target instead of a non-human target.

**H5** The longer the distance traveled to the target, the more likely terrorists will select a government target instead of citizenry.

**H5a** The longer the distance traveled to target, the more likely terrorists will select a human target instead of a non-human target.

### **Data from the American Terrorism Study (ATS)**

This project will utilize data from the American Terrorism Study (ATS) housed in the Terrorism Research Center at the University of Arkansas. The ATS is an open-source database that contains information on terrorism-related criminal cases in which individuals are indicted in



a United States federal court. Information is systematically collected from court records that have either been gathered directly from court record repositories across the country or digitally through the Public Access to Court Electronic Records (PACER) system. Supplemental information on terrorists and their crimes is also gathered from online news sources.

Incidents are defined in this study as any failed, foiled or completed attack within the United States in which an individual (or group) took one or more preparatory steps toward the commission of the planned terrorist act. Threats to commit a terrorist attack are not considered an incident of terrorism unless they are linked to an observable preparatory step by perpetrators (e.g., conducting surveillance, purchasing weapons) as evidenced in court records. While there are debates within the terrorism literature on how to define terrorism (Borum 2014; Ganor, 2002; Sedgwick, 2010; Kundnani, 2012), only terrorism incidents adhering to the FBI's definition of domestic terrorism are included in the ATS. The FBI defines domestic terrorism as:

“use, or threatened use, of force or violence by a group or individual based and operating entirely within the United States or Puerto Rico without foreign direction committed against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof in furtherance of political or social objectives. (FBI, 2005, p. V)

To date, the American Terrorism Study includes data on over 500 failed, foiled or completed incidents dating back to 1980. In order to measure situational factors associated with target selection, only incidents with known target locations were included, thus reducing the sample to 440 unique incidents. This eliminated incidents where the specific target is unknown. An example would be when a perpetrator is indicted for making plans to attack a mosque but a specific mosque is never identified. Therefore, the exact target is unknown and is not included in the sample. The sample was then reduced even further to account for the ideological categories of far-right and Islamic extremists. From this, the sample of 211 unique incidents committed by

far-right or Islamic extremists with identified target locations ranging from 1980 to current was generated.

For the current study, several situational and event-level characteristics of terrorism incidents, including weapon type, group status, and the length of terrorist planning cycle were collected from ATS incidents. In addition, levels of perceived attractiveness and vulnerability of the selected targets are measured. To examine how terrorist's geospatial proximity to targets might shape their decision-making, information on residential and target locations was collected and geocoded, thus allowing for distance traveled to be measured. These results might shape insight on terrorist decision-making. The following section provides more in-depth details on how each of the variables in the study are measured.

### **Dependent Variable**

The primary dependent variable for the study the type of target selected by terrorists. One issue that arises from previous research is the vast array of target type measures. As there is no clear and concise way to best measure target type, the current study explores two unique and separate ways of measuring target type: Government/Citizenry targets and Human/Non-human targets.

Government targets are those that are owned or operated by the federal, state or local government such as federal buildings, court houses and military bases. Citizenry targets are those that are not owned or operated by the government, but are privately owned or operated, and include targets such as businesses, media outlets and religious institutions. Attacks against individuals are considered citizenry targets as well. The second target types outcomes of interest include human and non-human targets. Human targets are a result of any attack that injures or kills at least one individual. Incidents that were foiled before they could occur were assessed

whether the purpose of the attack was to injure/kill civilians. While certain incidents may have occurred at a building such as a business or government office, if the intended target was the civilians inside the building and not the physical structure itself, it was coded as human targets. As such, non-human targets are those that did not injure/kill anyone or had no purpose in doing so and were focused solely on the physical structure. For example, vandalism of a historical statue or destruction of a religious building are attacks against non-human targets.

## **Independent Variables**

### **Weapon Sophistication**

The first independent variable included is weapon sophistication. Following the work of previous ATS research (Smith et al., 2016), weapon sophistication is coded as an ordinal measure ranging from low (0), moderate (1), and high (2) levels of sophistication. Weapon sophistication measures the availability of weapons in combination with the level of knowledge required to build (if necessary) and operate the specific weapon. Weapons of low sophistication are easily accessed by the public and require little to no knowledge to operate them (e.g., baseball bats, knives, etc.). Moderate sophistication includes weapons that take some skill, training, or previous handling to operate (e.g., firearms and vehicles). High sophistication weapons are those that are not easily accessible and require above average skills to build and/or operate, such as improvised explosive devices (IED) or biological weapons. Terrorism incidents that involve multiple weapons are coded for the weapon type that has the highest level of sophistication.

### **Length of Planning Process**

The length of the planning process is included as a key independent variable to capture how long terrorists plan and prepare before executing an attack. The planning process is an

interval measure available in the ATS that codes the number of days from date of the first preparatory event to the date of the executed incident or when it was planned to occur. Previous studies have grouped interval measures of the planning process into ordinal categories (Smith et al., 2016). This approach is adopted in the current study as well.

### **Terrorist Group Structure**

Terrorist group structure captures the number of people involved in planning, preparing and committing the incident. Loners are those actors that acted completely alone, having no help with the planning or committing of the incident. While they may be affiliated with a known terrorist organization, they had no help with any stage of the incident process. Groups are those terrorists that operated with 2 or more people, either within the planning process or committing the actual incident.

### **Distance to Target**

The final independent variable is distance to target, which measures how far (in miles) the preparator(s) traveled or were planning to travel from their residence to a target location. Addresses of both perpetrator residences and target locations are collected and geo-coded in the ATS along with their respective latitude and longitude coordinates. Using Google Maps, each perpetrator residence and target location are mapped and distances from perpetrator residence to the corresponding target locations are calculated. For incidents that have multiple perpetrators involved, and thus have multiple residences linked to a single incident, the average distance traveled is calculated to produce a single measure. Distance to target is then recoded into a dichotomous variable: 30 miles or less and 31 or more miles to provide cohesion with the other independent variables.

## **Target Attractiveness**

The final group of variables seek to measure the attractiveness for each target selected by terrorists. As discussed previously, Clarke and Newman (2006) introduced EVIL DONE as an acronym for describing the attributes of potential terrorist targets. The current study will only focus on four measures proposed by Clarke and Newman: Exposed, Vital, Destructible and Occupied.

Exposed measures the accessibility of the potential target to the public. Accessible targets are those that are open to the public either day or night without special permission or access. As such, inaccessible targets are those that require some form of permission or special access and are not available for visitation by the general public. Vital measures how important a target is to the functioning of everyday operations of the specific organization. Vital targets would not allow the organization to function in its day-to-day activities whereas non-vital targets would still be able to operate. For example, a courthouse would be a vital target as the court system of that particular city would be greatly impacted if destroyed. Destructible measures how easily the target can be destroyed in an attack. Targets that can be destroyed by conventional weapons and/or firearms would be considered easily destructible. Larger targets that would require a single or multiple explosive device to destroy are coded as difficult to destroy. Occupied measures the level of potential victims present within a target site, either unoccupied or occupied.

## **Analytical Strategy**

The first type of analysis that is used is bivariate analysis, including chi-square tests to examine how the relationship of situational and background factors compare across target types for both far-right and Islamic incidents. In addition, binary logistic regression is used to assess

the statistical relationship between each independent variable and the binary-coded outcome variables, net the effects of all other independent variables.

It is recognized that traditional bivariate and multivariate regression models are limited by considering the effects of independent in isolation when it is possible (and likely) that factors shaping target selection operate in combination with one another. To address this concern, the study supplements the bivariate and multivariate models with Conjunctive Analysis of Case Configurations (or “conjunctive analysis”) to examine how particular configurational profiles of independent variables are more or less associated with particular types of targets.

Conjunctive analysis, first introduced into criminology by Meithe, Hart and Regoeczi (2008), explores the probability of particular independent variables across the dependent variable. Conjunctive analysis creates a matrix table or truth table for all possible configurations of each variable, with a dichotomous dependent variable. If a strong relationship exists amongst the possible combinations, then the identified combinations will be clustered together rather than spread across all of the potential configurations. This helps identify which configurations are more or less likely to occur within the given dataset.

## CHAPTER FOUR

### Results

This chapter presents the results of the current study. The first section begins with descriptive statistics for all variables that were included in one or more of the analyses. The second section provides results from the bivariate analysis, including the statistical relationship between each independent and dependent variable. Third, a description of findings from the multivariate analyses using binary logistic regression follows. Fourth, and finally, findings are presented from conjunctive analysis examining how ideology and key situational variables operate in combination with one another to shape specific outcomes of interest.

#### **Descriptive Statistics**

Table 1 displays the frequency and percentages of all independent and dependent variables. All variables for this analysis except for weapon type were binary coded. Missing data was generally not an issue in this study, with data missing in less than 20 percent of cases for most variables. Due to the challenges of identifying when terrorist plots originated (i.e., data of first preparatory act) and limited publicly available information about these acts, data for terrorist plan cycle are missing for 35 percent of cases.

Table 1 reveals that the majority of targets selected by terrorists in general were human targets, while only 34 percent of targets were non-human targets. This is not too surprising as one of the primary goals of terrorist attacks is to inflict as much damage and human casualties as possible. There is less variation across government and citizen target types. Government targets account for 51.5 percent of the selected targets, while citizen targets account for 48.5 percent of all targets included in this study.

**Table 1. Frequency Distributions for all Variables**

<b>Variables</b>		<b>Frequency</b>	<b>%</b>
Ideology	Far-right	120	56.9
	Islamic Extremist	91	43.1
Weapon Type	Low Sophistication	53	27.3
	Moderate Sophistication	48	24.7
	High Sophistication	93	47.9
Group Structure	Loner	86	41.3
	Group	122	58.7
Plan Cycle	0 – 90 days	60	43.5
	91+ days	78	56.5
Distance to Target	30 miles or less	109	61.9
	31+ miles	67	38.1
Exposed	Accessible	143	70.1
	Inaccessible	61	29.9
Vital	Vital	130	63.7
	Non-Vital	74	36.3
Destructible	Easily Destructible	115	56.7
	Difficult to Destroy	88	43.3
Occupied	Unoccupied	57	28.8
	Occupied	141	71.2
Human/Non-human	Human	139	65.9
	Non-human	72	34.1
Government/Citizenry	Government	104	51.5
	Citizenry	98	48.5

Figure 1 displays the temporal variation of all terrorism incidents included in the current study (n=211). The years of terrorism incidents range from 1983 to 2019 and are grouped in 5-year increments. The overall trend shows an increase in the number of incidents since the 1980s. The number of incidents remains fairly stable through the mid 90's, followed by sharp increases in the early 2000's and into the 2010's. The number of incidents reaches its peak in 2009 – 2013 and slightly declines into the later 2010's. Due to how cases are coded in the ATS, the sample



does not include all incidents in 2019. In addition, because terrorism incidents are not added to the ATS until cases are closed, findings for more recent cases should be interpreted with caution.

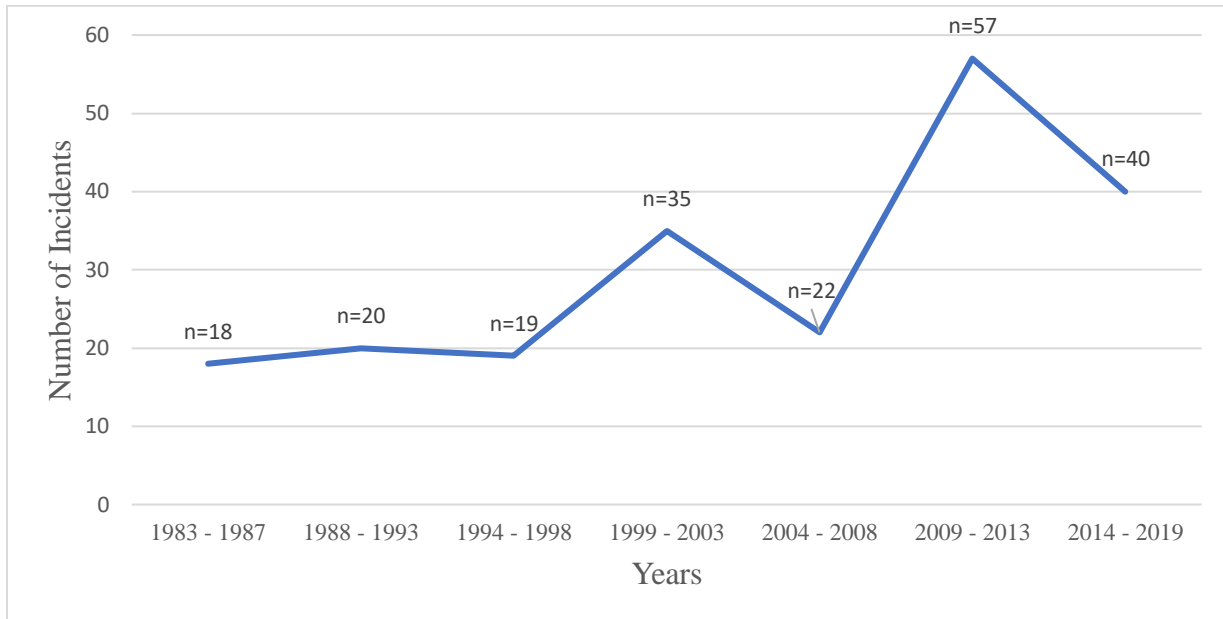


Figure 1. Number of Terrorist Incidents Across Time

### **Bivariate Analysis**

Since each of the independent variables are categorical and the dependent variable is coded dichotomously, cross tabs and associated chi-square tests were run to test for statistical significance across target types. Table 2 displays the results for each independent variable across government targets and citizenry targets. Examining the situational variables, ideology and weapon type had a significant relationship with target type ( $p \leq 0.05$ ). While the majority of far-right incidents (56.8%) were against citizens, the opposite occurs for Islamic extremist incidents, as 63.1 percent were against government targets, providing some initial support for Hypothesis 1. Supportive of Hypothesis 2, findings show that as sophistication of weapons increases, the likelihood that terrorists will select government targets compared to citizenry targets also increases. Low sophisticated weapons are more common among citizenry targets (64.7%), while

moderate (52.5%) and high sophisticated weapons (57.3%) are relatively more associated with government targets. Findings in Table 2 also indicate that the majority of terrorists who operate alone (59%) selected government targets, while those operating in groups chose to target citizens, though differences were not statistically significant. In addition, incidents that occurred 30 miles or less from the perpetrator's residence were most commonly associated with government targets (59.2%), though the opposite was true for those that occurred 31+ miles away. The relationship between distance traveled and target type was statistically significant at the  $p \leq 0.01$  level, but in the opposite direction as expected, thus failing to support Hypothesis 5 at the bivariate level. Drawing from crime pattern theory, it would be expected that within the shorter distance of their routine movements, terrorists are more likely to come in contact with citizen targets more often than government targets. However, the results from the bivariate analysis did not support the expected results.

Shifting to measures of target attractiveness, measures of exposure and destructibility were significantly related to target selection, whereas vital and occupied measures were not. As expected, targets accessible to the public were predominately citizen targets, whereas those deemed inaccessible to the public were government targets. A similar pattern is evident with destructibility. The majority of targets that are the easiest to destroy were those associated with citizens (55%), while those that are difficult to destroy more often reflected government targets (60%). Importantly, bivariate analyses reveal variation in target attractiveness measures, suggesting that not all government targets are inaccessible or difficult to destroy, while the opposite is not always true of citizenry targets.

**Table 2. Bivariate Findings Across Government and Citizenry Targets**

Variable		Government		Citizenry		Total
		(n)	%	(n)	%	
Ideology ** n=202	Far-right	51	43.2	67	56.8	118
	Islamic extremist	53	63.1	31	36.9	84
Weapon Type * n=186	Low Sophistication	18	35.3	33	64.7	51
	Moderate Sophistication	24	52.2	22	47.8	46
	High Sophistication	51	57.3	38	42.7	89
Group Structure ± n=199	Loner	49	59.0	34	41.0	83
	Group	54	46.6	62	53.4	116
Plan Cycle n=135	0 – 90 days	27	46.6	31	53.4	58
	91+ days	39	50.6	38	49.4	77
Distance to Target ± n=169	30 miles or less	61	59.2	42	40.8	103
	31+ miles	30	45.5	36	54.0	66
Exposed ** n=195	Accessible	54	39.4	83	60.6	137
	Inaccessible	46	79.3	12	20.0	58
Vital n=196	Vital	66	53.2	58	46.8	124
	Non-Vital	37	51.4	35	48.6	72
Destructible * n=194	Easily Destructible	49	45.0	60	55.0	109
	Difficult to Destroy	51	60.0	34	40.0	85
Occupied n=189	Unoccupied	27	50.0	27	50.0	54
	Occupied	71	52.6	64	47.4	135

± p ≤ 0.1, \* p ≤ 0.05, \*\* p ≤ 0.01

Table 3 displays bivariate results for each independent variable across human and non-human targets. Situational variables, including ideology, weapon type, group structure and plan cycle significantly vary ( $p \leq 0.01$ ) across the target type. Far-right terrorists fairly evenly selected human and non-human targets, while Islamic extremists more commonly targeted human targets

(89%), indicating some initial support for Hypothesis 1a. As expected, (Hypothesis 2a), low sophisticated weapons were most commonly used against non-human targets, while moderate and high sophisticated weapons, such as firearms and improvised explosive devices (IEDs), were predominately used to target humans to cause injuries and casualties. Human targets include attacks against facilities with the intent of targeting the civilians inside the building and not simply the physical structure itself. Non-human targets are solely structural attacks, such as vandalism of religious symbols or destruction of abortion clinics and therefore often rely on less sophisticated weapons. Of incidents that were perpetrated by groups, 74.6 percent were against human targets, as expected (Hypothesis 3a). The shorter plan cycles (0 – 90 days) were evenly distributed at 50 percent across human and non-human targets, while the longer plan cycles (91+ days) were most common amongst human targets (78.2%), thus supporting Hypothesis 4a. Since there is no significant statistical difference between distance to target and target type amongst human and non-human targets, the findings fail to provide initial support for Hypothesis 5a. Instead, target exposure was the only significant measure of attractiveness to vary significantly across human and non-human targets ( $p \leq 0.01$ ).

**Table 3. Bivariate Findings Across Human and Non-human Targets**

<b>Variable</b>		<b>Human</b>		<b>Non-Human</b>		<b>Total</b>
		<b>(n)</b>	<b>%</b>	<b>(n)</b>	<b>%</b>	
Ideology ** n=211	Far-right	58	48.3	62	51.7	120
	Islamic Extremist	81	89.0	10	11.0	91
Weapon Type ** n=194	Low Sophistication	24	45.3	29	54.7	53
	Moderate Sophistication	38	79.2	10	20.8	48
	High Sophistication	66	71.0	27	29.0	93

**Table 3. Bivariate Findings Across Human and Non-human Targets (Cont.)<sup>1</sup>**

Variable		Human		Non-Human		Total
		(n)	%	(n)	%	
Group Structure ** n=208	Loner	46	53.5	40	46.5	86
	Group	91	74.6	31	25.4	122
Plan Cycle ** n=138	0 – 90 days	30	50.0	30	50.0	60
	91+ days	61	78.2	17	21.8	78
Distance to Target n=176	30 miles or less	68	62.4	41	37.6	109
	31+ miles	45	67.2	22	32.8	67
Exposed ** n=204	Accessible	84	58.7	59	41.3	143
	Inaccessible	49	80.3	12	19.7	61
Vital n=204	Vital	89	68.5	41	31.5	130
	Non-Vital	46	62.2	28	37.8	74
Destructible n=203	Easily Destructible	76	66.1	39	33.9	115
	Difficult to Destroy	60	68.2	28	31.8	88
Occupied n=198	Unoccupied	0	0.0	57	100.0	57
	Occupied	130	92.2	11	7.8	141

± p ≤ 0.1, \* p ≤ 0.05, \*\* p ≤ 0.01

### **Multivariate Analysis**

The next step was to examine how each situational measure and target attractiveness characteristic were statistically associated with terrorist target selection, net the effects of other factors, using multivariate analyses. Table 4 displays the results of the binary logistic regression models, predicting government versus citizenry terrorist target selection. The model includes all of the situational variables that were found to be significant in the bivariate analysis.<sup>2</sup> The

<sup>1</sup> The occupied measure was not included in the analysis because of its near perfect statistical relationship with the outcome of interest.

<sup>2</sup> Due to the exploratory nature of the study and relatively small sample size, multivariate analyses only include independent variables that were found to be statistically significant at the bivariate level.

statistically significant target attractiveness characteristics were also added to the model to test the effects of each independent variable, while controlling for all other variables.<sup>3</sup>

**Table 4. Predicting Target Type (Government vs. Citizenry) Using Binary Logistic Regression**

<b>Variables</b>	<b>b(SE)</b>	<b>Exp(B)</b>
<b>Situational Factors</b>		
Group Actors <sup>1</sup>	0.918 (.454)*	2.504
High Sophistication Weapons <sup>2</sup>	-0.886 (.437)*	0.412
Long Distance to Target (31+ miles) <sup>3</sup>	0.581 (.398)	1.787
Islamic extremist <sup>4</sup>	-0.671 (.408) ±	0.511
<b>Significant Target Attractiveness Factors</b>		
Inaccessibles <sup>5</sup>	-1.825 (.491) **	0.161
Difficult to Destroy <sup>6</sup>	-0.029 (.452)	0.971
Constant	.416 (.343)	1.516
R-Square	0.256	
-2 Log likelihood	166.297	

±  $p \leq 0.1$ , \*  $p \leq 0.05$ , \*\*  $p \leq 0.01$

Reference Categories: <sup>1</sup> Lone Actors, <sup>2</sup> Low/Mod Sophisticated Weapons, <sup>3</sup> Short Distance to Target (30 miles or less), <sup>4</sup> Far-right extremist, <sup>5</sup> Accessible, <sup>6</sup> Easily Destructible

Beginning with the situational incident characteristics, group actors significantly varied with the type of terrorist target selection ( $p \leq 0.05$ ). The positive statistical relationship indicates that groups were more likely to select citizenry targets in comparison to lone actors, thus failing to support Hypothesis 3. Government targets are typically more secure in comparison to citizenry targets and therefore would require more resources and planning to successfully attack. Since group actors have more combined resources than those acting alone, situational crime prevention would suggest that groups would then have more available opportunities to attack more fortified targets, however this did not appear to be the case. Instead, this relationship could be a result of a relatively small number of terrorist groups that targeted private citizens in spree attacks. For

<sup>3</sup> Model diagnostic tests indicated that multicollinearity was not an issue across multivariate models.

example, in the 1980's a group known as the Nation of Yahweh targeted individuals who opposed their ideology in a number of planned attacks.

Highly sophisticated weapons were also a significant predictor ( $p \leq 0.05$ ) of government and citizen targets. As weapon sophistication increased, the likelihood of selecting citizenry targets decreased, showing support for Hypothesis 2, aligning with the bivariate results. High sophisticated weapons are more likely to be associated with government targets rather than citizen targets in comparison to low sophisticated weapons. Government targets often have higher levels of security measures for protection in comparison to citizen targets. It would require stronger, more sophisticated weapons such as explosives in order to combat these more advanced security measures. Therefore, it is likely that reasoning terrorists are more likely to select government targets rather than citizen targets when more sophisticated weapons and suitable opportunities are available to them.

As shown in Table 4, incidents perpetrated by Islamic extremists are statistically and negatively associated with target selection ( $p \leq 0.1$ ). This means that Islamic extremists are more likely to select government targets than citizenry targets compared to far-right extremists, which is supportive of Hypothesis 1. Distance to target was not a significant predictor of target selection, thus failing to support Hypothesis 5. Of target attractiveness measures that were added to the model, exposure is strongly significant ( $p \leq 0.01$ ) at predicting government or citizen targets. Targets that are unexposed, or inaccessible to the public, are more likely to associated with government targets compared to those that are relatively more accessible to the public. This could be indicative that government targets more often require special permissions or access badges to enter which are not given to the public. While statistically significant in the bivariate

analysis, destructibility is not statistically significant in the multivariate analysis for this particular outcome variable.

Table 5 displays the results of the binary logistic regression model predicting human and non-human target selection by terrorists. Similar to the previous model, Table 5 includes all of the situational and target attractiveness measures found to be statistically significant in previous bivariate analyses.

**Table 5. Predicting Target Type (Human vs Non-Human) Using Binary Logistic Regression**

<b>Variables</b>	<b>b(SE)</b>	<b>Exp(B)</b>
<b>Situational Factors</b>		
Group Actors <sup>1</sup>	-0.556 (.509)	0.573
High Sophisticated Weapons <sup>2</sup>	1.008 (.576) ±	2.741
Long Plan Cycle <sup>3</sup>	-1.905 (.572) **	0.149
Islamic Extremist <sup>4</sup>	-3.398 (.742) **	0.033
<b>Significant Target Attractiveness Factors</b>		
Inaccessibles <sup>5</sup>	-0.211 (.732)	0.81
Constant	1.2 (.467)	3.321
R-Square	0.485	
-2 Log likelihood	106.506	

± p ≤ 0.1, \* p ≤ 0.05, \*\* p ≤ 0.01

Reference Categories: <sup>1</sup> Lone Actors, <sup>2</sup> Low/Mod Sophisticated Weapons, <sup>3</sup> Short plan cycle  
<sup>4</sup>Far-right extremist, <sup>5</sup> Accessible

Beginning with the situational incident variables, ideology (p ≤ 0.01) and plan cycle (p ≤ 0.01) were significant predictors of human versus non-human target types. Specifically, Islamic extremists were more likely to select human targets than non-human targets in comparison to far-right extremist, as expected (Hypothesis 1a). This makes sense since Islamic extremists often target people who do not adhere to their specific religious beliefs in mass casualty attacks. Similar to the results from bivariate analysis, findings from multivariate analysis indicate that the longer the length of terrorists' planning cycle, the more likely terrorists would select human



targets in comparison to non-human targets, thus supporting Hypothesis 4a. It is assumed that like other criminals, terrorists are rational beings that weigh the costs and benefits when planning an attack to reduce the likelihood of being caught by law enforcement. Attacks against human targets typically require more sophisticated plots to have successful outcomes in comparison to attacks against non-human targets. All other variables are either significant only at the  $p \leq 0.1$  level or are not statistically significant. Therefore, hypotheses related to weapon type target type fail to support Hypothesis 2a. Moreover, unlike the previous model predicting government versus citizen target selection, target exposure was not a significant predictor of human versus non-human target selection.

### **Conjunctive Analysis**

The final form of analysis was conjunctive analysis of case configurations (CACC) to examine which combinations of variables were most associated with the selection of particular types of targets by terrorists. While binary logistic regression is useful for revealing how each independent variable is statistically related to target selection outcomes, CACC indicates how ideological and situational variables operate in combination to shape terrorist decision-making. As in the previous analysis, only the variables that were significant in bivariate analysis were included in CACC. In addition, and following prior terrorism research based on limited samples (Gruenewald et al., 2019), only outcomes with five or more cases were included in the analysis.

Table 6 displays the results of CACC across government and citizenry targets. Some combinations were associated with a very high likelihood of terrorists selecting citizens as their target. For example, case profile 1 displayed that incidents committed by lone acting far-right offenders often used moderately sophisticated weapons and traveled greater than 31 miles select targets that were both accessible and easy to destroy which resulted in 100 percent citizenry

targets. Other configurations were associated with a very high likelihood of terrorists selecting government targets. For example, profile 11 displays the combination that resulted in 0 percent citizenry targets or, in other words, 100 percent government targets. The combination of factors was almost the complete opposite of those selecting citizenry targets. Indeed, these incidents were committed by Islamic extremist groups that used highly sophisticated weapons and traveled less than 30 miles to targets that were inaccessible to the public and difficult to destroy. Being able to recognize the patterns of factors associated with government and citizen targets allows law enforcement to identify targets that are most at risk of future terrorist attacks.

**Table 6. Combinations of Target Type (Government vs Citizenry) Using Conjunctive Analysis**

<b>Case Profile</b>	<b>Ideology</b>	<b>Weapon Type</b>	<b>Group Structure</b>	<b>Exposed</b>	<b>Destructible</b>	<b>Distance to Target</b>	<b>% Citizenry Target</b>	<b># Cases</b>
1	Far-right	Moderate	Loner	Accessible	Easy	31+ miles	100	7
2	Far-right	Low	Loner	Inaccessible	Easy	≤ 30 miles	100	5
3	Far-right	High	Group	Accessible	Easy	≤ 30 miles	86	7
4	Far-right	High	Group	Accessible	Difficult	31+ miles	83	6
5	IE	High	Group	Accessible	Difficult	31+ miles	50	6
6	IE	High	Group	Accessible	Difficult	≤ 30 miles	43	8
7	Far-right	Low	Loner	Accessible	Easy	≤ 30 miles	40	11
8	IE	Moderate	Loner	Accessible	Easy	≤ 30 miles	20	6
9	Far-right	High	Loner	Accessible	Easy	31+ miles	20	5
10	IE	High	Group	Inaccessible	Difficult	31+ miles	20	5
11	IE	High	Group	Inaccessible	Difficult	≤ 30 miles	0	6
12	Far-right	High	Loner	Accessible	Easy	≤ 30 miles	0	5

\*IE – Islamic  
Extremist

Case profile 7 displays the results for the most commonly occurring configuration present within the data (n=11), including far-right lone actors with low weapon sophistication that traveled less than 30 miles to targets that were both accessible and easy to destroy. This particular case profile was associated with the selection of citizenry targets in 40 percent of incidents. The change from moderately sophisticated weapons and distance greater than 30 miles (Case Profile 1) to low sophisticated weapons and less than 30 miles (Case Profile 7) resulted in a 60 percent decrease in selecting citizenry targets. This shows how changes in just two situational factors can have a drastic impact on the likelihood of selecting citizenry targets over government targets.

Combinations of factors that were most likely to result in selecting citizenry targets were far-right perpetrators against targets that were easily destructible and accessible to the public. Weapon type, distance to target and lone actor status varied across these case configurations. For example, case profiles 1 thru 4 in Table 6 show the combinations most likely to result in citizenry targets. Almost all of these configurations involved far-right extremists and accessible and easy targets. Within these same configurations though, there was more variation across weapon type, group structure, and distance to target.

While ideology was found to be a significant contributor while independent of other factors in the bivariate and multivariate results, it was particularly relevant in combination with other specific situational measures. When comparing case profiles 7 and 8 the combinations of factors were similar except for ideology. The change from extreme far-right to Islamic extremist, while all other factors remain the same, resulted in a 20 percent decrease in the chances of selecting a citizenry target. Another example of this was present in case profiles 8 and 10. While ideology remained the same, all other factors flip values. However, even with every factor

changing, the likelihood of citizenry targets being selected by terrorists remains the same -- 20 percent, suggesting that even in combination of all other factors, ideology is a critical factor in target selection.

**Table 7. Combinations of Target Type (Human vs Non-human) Using Conjunctive Analysis**

<b>Case Profile</b>	<b>Ideology</b>	<b>Weapon Type</b>	<b>Group Structure</b>	<b>Exposed</b>	<b>Plan Cycle</b>	<b>% Non-Human Target</b>	<b># Cases</b>
1	Far-right	Low	Loner	Accessible	0 – 90 days	100	11
2	Far-right	High	Group	Accessible	0 – 90 days	80	5
3	Far-right	Low	Group	Accessible	0 – 90 days	67	9
4	Far-right	High	Loner	Accessible	91+ days	60	5
5	Far-right	High	Group	Accessible	91+ days	44	16
6	IE	High	Group	Inaccessible	91+ days	20	5
7	IE	High	Group	Accessible	91+ days	0	11
8	Far-right	Moderate	Loner	Accessible	91+ days	0	5

\*IE – Islamic Extremist

Table 7 displays the results of CACC with human and non-human target types. Some combinations resulted in a very high likelihood of selecting human targets, while other combinations resulted in a high likelihood of selecting non-human targets. The combination of extreme far-right lone actors with low sophisticated weapons that have a shorter plan cycle (0-90 days) and with targets that were accessible to the public resulted in 100 percent non-human targets (Case Profile 1). On the other hand, Case Profile 7 reflects incidents committed by Islamic extremist groups with highly sophisticated weapons and a longer plan cycle (91+ days) against accessible targets that resulted in 100 percent human targets.

Interestingly, non-human targets are most commonly selected by far-right extremists that used low sophisticated weapons with accessible targets. However, there was variation across group structure, as both loners and groups were common among non-human targets. Human targets were most commonly associated with high sophisticated weapons and group perpetrators with accessible targets. Human target selection was relatively common amongst both extreme far-right and Islamic extremists. CACC findings also revealed that non-human targets were most commonly associated with a shorter plan cycle and low sophisticated weapons, whereas human targets were associated with a longer plan cycle of 91 or more days and moderate/high sophisticated weapons. This could be a result of the difficulty of planning a large-scale attack with complex weaponry such as improvised explosive devices (IEDs) to maximize as much casualties as possible.

Conjunctive analysis also revealed group structure is associated with target selection in combination with other relevant factors. A change in group structure from loner to group decreased the likelihood of selecting a non-human target. For example, case profile 1 and 3 shared the same combination of factors except for group structure. The change from lone actors

(Case profile 1) to group actors (Case Profile 3) resulted in a 37 percent decrease in the likelihood of selecting a non-human target. The same pattern was present when comparing case profiles 4 and 5 as well. With all other factors remaining constant, the change in group structure resulted in a 16 percent decrease in the likelihood of selecting non-human targets.



## CHAPTER FIVE

### Discussion and Conclusion

Guided by the situational crime prevention framework, the purpose of this study was to explore how the situational incident factors and target attractiveness characteristics influence terrorist target selection. The following chapter begins by reviewing the key findings from the study. Then addresses some implications for counterterrorism policy and practice. Finally, limitations of the current study are addressed and suggestions for future research are posited.

#### **Key Findings**

This study assumed that terrorists are rational beings and make reasoned choices when planning and preparing for an attack. It was also expected that several ideological and situational factors impact target selection. Based on bivariate and multivariate findings, it appears that ideology and weapon type were two of the most significant factors associated with target selection by terrorists.

Findings from the bivariate and multivariate analysis were consistent with previous findings that ideology influences terrorist target selection (Ahmed, 2018; Asal et al., 2009; Drake, 1998; Hoffman, 1998). Islamic extremists were more likely to select government targets than citizenry targets compared to far-right extremists. Also, Islamic extremists were more likely to select human targets than non-human targets. These findings make sense considering that Islamic extremists ultimately seek to weaken foreign governments and eliminate those who do not adhere to fundamentalist versions of Islamic teachings.

The level of terrorists' weapon sophistication also significantly influences target selection decisions. Highly sophisticated weapons are more likely to be used against government and human targets rather than citizens and non-human targets in comparison to moderately and least

sophisticated weapons. Clarke and Newman (2006) identify weapons as one of the four pillars of the terrorist opportunity structure, suggesting that weapons are dependent on the level of resources available to the terrorist(s) and are indicative of the level of destruction that can be caused. Higher sophisticated weapons, while requiring more knowledge to use and effort to obtain, can cause significantly more damage than lower sophisticated weapons. When selecting a target, terrorists also consider the amount of death and destruction that is possible. In order to maximize the amount of death and destruction, terrorists may utilize highly sophisticated weapons, such as IEDs, against targets involving humans rather than non-human or structural targets. Government targets are often more secure and protected than citizenry targets and therefore terrorists are more likely to use highly sophisticated weapons to overcome these protective measures.

Several other situational factors included in the current study were expected to play an important role in terrorists' target decision-making process, but these hypotheses were not supported by the statistical models. Previous research on group structure has found it to have a significant impact on target selection (Abrahams and Potter, 2015; Becker, 2014). Lone actors are thought to have relatively limited opportunities and available resources needed to commit a high-scale terrorist attack. In contrast, group actors typically have more combined resources and opportunities to attack increasingly protected targets. The results did not support these expectations, as group actors were actually less likely to select government targets than citizens compared to lone actors.

While previous research has typically examined factors of target selection in isolation of one another, it was predicted that these factors operate in particular sets or combinations to more or less influence target selection. This study explored this question using conjunctive analysis of

case configurations (CACC). The results of the CACC revealed that some configurations of ideological and situational factors resulted in increased and decreased chances that terrorists would select one type of target over another. In particular, incidents committed by lone acting extreme far-right offenders who use moderately sophisticated weapons and travel greater than 31 miles to attack accessible and easily destroyed targets always result in the selection of citizenry targets. Whereas incidents committed by Islamic extremist groups using highly sophisticated weapons and travelling less than 30 miles to targets that are publicly inaccessible and difficult to destroy always result in the selection of government targets. Comparing human and non-human targets, the combination of extreme far-right lone actors with shorter plan cycle (0-90 days) who use low sophisticated weapons to target publicly accessible locations always results in the selection of non-human targets. In contrast, Islamic extremist groups relying on highly sophisticated weapons and longer planning cycles who plan to attack publicly accessible locations always results in the selection of human targets.

Finding that changes in one situational factor can significantly shape the relevance of other factors for influencing target selection highlights their interrelatedness and what is missed by focusing on the effects of single variables on outcomes of interest in isolation. It is true that some factors, such as ideology or weapon type, might carry more weight in the decision-making process; however how these factors ultimately shape target selection depends on the presence or absence of other relevant situated opportunities. The number of people involved, the length terrorists must travel to their selected targets, and how long terrorists plan and prepare for attacks pose risks to the viability of terrorist plots. It is the culmination of these factors and their many variations that ultimately shape terrorists' selection of particular targets.

## **Implications**

A major goal of counterterrorism efforts at both the federal and state level is to be proactive rather than reactive in responding to terrorism. This study adds to the growing body of research on target selection, particularly within the context of terrorism. Being able to identify the factors that are significant predictors of target selection can allow for law enforcement agencies to be more proactive in identifying future terrorist plots and foiling them.

One of the significant factors presented in the study is the type of weapons being used to select targets, particularly highly sophisticated weapons. Availability of highly sophisticated weapons, including various forms of explosives, increases the opportunities of potential targets to more secure facilities, such as government buildings and other large buildings to maximize death and destruction. Following the techniques of situational crime prevention (Cornish and Clarke, 2003), law enforcement should continue increased efforts to disrupt the access of these weapons. Reducing availability and illicit access to highly sophisticated weapons could then in turn reduce the number of opportunities for future terrorist attacks.

The results from the conjunctive analysis of case configurations (CACC) are also important in helping law enforcement better identify combinations of factors linked to target selection. Identifying patterns most likely to be associated to certain target types, highlights targets that are most at risk of being attacked. For example, incidents committed by lone acting extreme far-right offenders that use moderately sophisticated weapons are most likely to select citizen targets in comparison to government targets. Being able to identify which targets are most at risk can then allow law enforcement and other agencies to employ tactics, such as target hardening to reduce the risk of being selected. As mentioned earlier, it is impossible to

completely protect all potential targets. The findings from this study can help law enforcement identify targets that remain at elevated levels of need for protection.

### **Limitations and Future Research**

While this research adds to the growing body of literature on terrorism target selection, it does not come without some limitations. One of the major limitations of the study is the relatively small sample size. Terrorism itself is a rare event, so statistical analysis must take this into account. Focusing only on far-right and Islamic extremists limits the sample size even further. While these two major ideologies currently pose the largest threat within the United States, we must be cautious applying the results from this study to all forms of terrorism. Future research could also focus on far-left and environmental extremists to see if similar patterns exist.

Future research is also needed to further explore measures of target attractiveness and vulnerability within the context of terrorism. The current study includes some target attractiveness measures, however prior research provides little guidance in how to operationalize these variables outside of major urban centers and for more common types of targets, including businesses and private citizens. Expanding the scope of future research to include multiple ideologies and target types will serve to refine the utility of situational crime prevention as a framework for understanding terrorism through the eyes of terrorists, and will aid law enforcement in increasing the costs and reducing the rewards for this serious type of crime.

### **Conclusion**

This study adds to the growing body of literature examining target selection, specifically as it relates to terrorism. Using data from the American Terrorism Study, the results indicate that situational factors such as ideology and weapon sophistication are significant predictors of target selection. The results also highlight how target selection is not dependent on any single factor,

but rather the result of multiple factors structuring terrorists' opportunities to plan, prepare, and execute attacks. The findings from this study inform law enforcement and other stakeholders about the factors shaping terrorists' decisions to target one type of target over another. Guided by situational crime prevention, anti-terrorism efforts should be target and ideology-specific, and centered around reducing future risk of attacks, for instance, by reducing the rewards and increasing the costs of using highly sophisticated weapons.

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