ABSTRACT

Title of Dissertation: Public Communication as Counter-Terrorism:
                                  An Examination of Zero-Sum Counter-
                                  Terrorism Assumptions

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    Terrorist groups from around the globe rely on a range of communication

tactics to rally support to their political movement, including publicly directed

discourse ranging from public talks to online publications. Thus far, the

criminological literature has focused primarily on efforts embodied in law and policy

to make terrorism harder to commit. Based on the zero-sum assumption that any

losses for a terrorist group result in gains for a government, this perspective suggests

that terrorism may only be reduced through deterrence or by diminishing the relative

capacity of terrorist organizations. In contrast, this dissertation argues that public

communications are a relatively inexpensive, readily available, and less oppressive

means to potentially reduce terrorism.

    Seeking to identify the role that government public communications have

played in existing counter-terrorism strategies, this dissertation examines US public

communications regarding terrorism delivered by US Presidents and their Press

Secretaries between 1970 and 2014. Drawing upon the 6,001 transcripts of presidential communications concerning terrorism during this period, a series of structural equation models are employed to estimate the impact of the quantity and sentiment of presidential communications concerning terrorism on subsequent terrorism aimed at US targets. Findings from these models suggest that the frequency of presidential communications regarding terrorism is consistently related to reductions in terrorism targeting the US in the following month. The frequency of terrorism communications is related to decreases in both domestic and international terrorism, but is also related to increases terrorist casualties between 1970 and 2014. After accounting for the sentiment in these models, support primarily emerged that communicating negative sentiment reduces terrorism in line with restrictive deterrence theory. Key differences in the impact of both the frequency and sentiment of terrorism communications between presidential administrations are also identified, suggesting that influences were more prominent for Presidents such as Carter and George W. Bush. Finally evidence that public approval moderates the impact of presidential communications on domestic terrorism is provided, with presidents with approval ratings in the lowest 25% netting the largest decreases in terrorism but greatest increases in terrorist casualties through their communications.

PUBLIC COMMUNICATION AS COUNTER-TERRORISM: AN
EXAMINATION OF ZERO-SUM COUNTER-TERRORISM ASSUMPTIONS

by

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Chapter 1: Introduction

The impacts of terrorism extend well beyond the loss of life and damage to infrastructure (Verger et al., 2004). Acts of terrorism also carry political and symbolic messages that are often more directly connected to terrorist organizations' goals than to the attacks themselves (Badey, 1998; Laqueur, 1999; Victoroff, 2005). Through their political and physical actions terrorist organizations attempt to directly and indirectly "expose a government's inability to protect a country's assets, thereby causing a loss in citizen confidence and government legitimacy" (Gaibulloev and Sandler, 2009: 359). Intended to generate public fear and anxiety (Gaibulloev and Sandler, 2009; Hoffman, 2008), their accompanying rhetoric aims both to undermine governments and to strengthen support for the terrorist organizations. It is vital for governments to address these political consequences, as trying to prevent the expression of these political statements will likely increase the justification for further violence (Stepanova, 2011). Much of the previous counterterrorism research has focused on attempts to prevent and disincentivize terrorism through legal and policy changes (Clarke and Newman, 2006; Dugan, Lafree, and Piquero, 2005; Lynch, 2011; Morris, 2015). However, governments have additional policy levers they can use to engage the political domain surrounding terrorism. One such policy lever is public communication, which has the potential to address terrorism and reduce motivations to perpetrate acts of terror.

Terrorist organizations have exploited public communication to gain media attention and political support, and as a catalyst for political change (Richards, 2004). Terrorist attacks and their ensuing communications enable terrorist groups to present and

control a public narrative, portraying governments as "reactive, impotent, [and] incompetent" (Jenkins, 1982: 17). As noted by Neumann (2007) and Toros (2008), this has led to the argument that governments should avoid engaging in discussions with terrorist groups in order to prevent benefitting terrorist organizations.[1] From this perspective, any communication strategy could increase the legitimacy of terrorist organizations and grant greater exposure to their political views (Jenkins, 1982; Neumann, 2007); and accommodating grievances that are aligned with the terrorists' pursuits could be interpreted as concessions toward terrorist organizations (Sederberg, 1995). This added attention may also undermine those who have pursued political change through peaceful and legal means (Jenkins, 1982; Neumann, 2007).

These strategies assume that terrorist conflicts are zero-sum in nature, whereby any gains for the terrorists are interpreted as losses for governments and the public more broadly (Turk, 1982). By strictly adhering to this perspective, governments are precluded from negotiating with terrorist organizations and engaging in open communication more generally, as any direct communication could destabilize political systems and undercut traditional efforts to combat terrorism (Neumann, 2007; Sederberg, 1995). Demonstrating this, governments often dismiss public communication strategies as an unsuitable tactic for responding to terrorism, as United States (US) President George W. Bush outlined in a 2003 speech.

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[1] It should also be noted that this stance has also been echoed by terrorist organizations such as Al-Qaeda: "Take note on the ground rule regarding this fight. There can be no dialogue with occupiers except through arms" (bin Laden, 2004 in Toros, 2008: 418).

*These terrorists will not be stopped by negotiations or by appeals to
reason or by the least hint of conscience. We have only one option: we
must and we will continue to take the fight to the enemy* (Bush II, 2003).

In practice, governments frequently use public communications to respond to

terrorism in order to reassure the public following terrorist events, condemn the use of

terrorism, and project the value of "anti-terrorism" (De Castella, McGarty, and

Musgrove, 2009; Sarfo and Krampa, 2013: 382). The US government explicitly uses

presidential speech to "discredit terrorist propaganda by promoting truthful and peaceful

messages" (US Department of State, 2006: 4), thereby providing an alternative to the

terrorist organizations' draconian portrayal of the government (Carter, 2012; Kydd and

Walter, 2006; Toros, 2008). These communications have attempted to frame the

government as operating "under the banner of… domestic unity and international

legitimacy" (Obama, 2009b), while portraying terrorist organizations' methods as evil or

wicked[2] (Bartolucci, 2012; Sarfo and Krampa, 2013).

Public communications are an essential component of both terrorism and

government responses to terrorism, and both groups attempt to assert control over this

domain rather than engaging in traditional dialogue (Domke et al., 2006; Jenkins, 1982:

17). Despite this, government communications regarding terrorism do sometimes elicit

responses from terrorist groups (O'Hair, Heath, Ayotte, and Ledlow, 2008; Payne, 2009;

Toros, 2008). For instance, terrorist leaders including Osama bin Laden and Ayman al

Zawahiri have publicly referred to presidential communications as "the American…

enormous propaganda machine" and "the media siege" respectively (as cited in Payne,

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[2] "The terrorist attack on a bus today in Israel was an outrageous act of lawlessness and senseless brutality.
Criminal acts such as this advance no cause or political belief. They inspire only revulsion at the lack of
respect for innocent human life" (Carter, 1978).

2009: 110). As terrorist groups regularly explicitly react to presidential communications, by publicly discussing and responding to terrorism, governments are also engaging terrorist groups.

Presidential communications can be a powerful tool for influencing political landscapes, and Jenkins (1982) suggests that these communications are regularly the most prominent and visible government response to terrorism. Yet, the prevalence of this speech does present some risk for increased terrorism. In addition to bringing attention to terrorist organizations, it can also be used to recruit new members when it plays into the terrorist organizations' narratives (Carter, 2012; Kydd and Walter, 2006). Despite these fears, this dissertation argues that when used strategically, public communications have the potential to effectively reduce the risk of terrorism. Previous analyses provide some evidence that public communication by government officials can reduce support for terrorist organizations and diminish the incidence of terrorism. Dugan, Huang, LaFree, and McCauley (2008) suggest that the Turkish Government's public reactions to the terrorist attack at the Orly Airport in 1983 led in part to the rapid decline of the Armenian terrorist organization ASALA. Thus, with both the ability to mitigate harm in the wake of a crisis (Coombs, 2007; 2015) and the potential to escalate violence within conflicts (L'Etang, 2009; Rummel, 1991), communications can be an important policy instrument that governments can employ strategically to shape the outcomes of conflicts that involve terrorism. As presidential communications can arguably increase or decrease the terrorist risk, this research takes the first step to develop a systematic understanding of the impact of these communications on terrorism.

In order to do this, this dissertation focuses explicitly on speech by the presidents of the United States and their press secretaries. Presidential press secretaries are a pivotal arm of presidential communications, being either the "mouthpiece" or "representative" of the president on important policy matters (Towle, 1997: 299). Particularly when acting as a representative, the press secretary "interprets the President and his activities" and their credibility and personality shape public perceptions of the president (McMillan and Ragan, 1983; Spragens and Terwoord, 1980: 1). Whether directly from the president or through their press secretaries, these presidential communications play a major international role in framing issues of terrorism and security more broadly (Bartolucci, 2012). The international influence of US presidential discourse on perceptions of terrorism has been documented in places as remote as Serbia and Croatia, and the projected US stance on counterterrorism "dictates its employment everywhere in the world" (Erjavec and Volčič, 2006:298; Osuri and Banerjee, 2004). While the term terrorism is loaded with cultural biases and other assumptions, the portrayal of "terrorism" by US presidents is used uncritically and unreflectively across the globe with lasting effects (Bartolucci, 2012:563). Exemplified by the international impact of the September 11th attacks, Wolf (2003: 5) argues that "truth was asserted and obedience exhorted, with the administration imposing a lesser standard of evidence upon itself." As presidential communications elicit a global response and "presidents do not have to resort to substantive arguments to sway public opinion" (Cohen, 1995: 87), it is important to examine whether this public influence extends as far as impacting the incidence of terrorism directed against US targets.

Theoretical Framework

As with other government policies, public communications can create incentives and disincentives for engaging in a range of actions. The importance of public communications for influencing criminal behavior has a long lineage within criminology. In his seminal examination of criminal justice practices, Beccaria (1764a) insisted that the public communication of both the laws and the consequences of digression was necessary to avoid corruption in governance as well as to deter crime.[3] As such, the claim that information disseminated by the government is necessary for deterrence and to influence criminal decision making is perhaps one of the oldest and most enduring in criminology. Presidential communications are unlikely to fundamentally shift an audience's beliefs or attitudes however (Schudson, 2003), and it is consequently doubtful that these communication could directly lead to the cessation of terrorism required by absolute deterrence (see Paternoster, 1989b). As such, at any deterrent impact of presidential communications should be framed in terms of restrictive deterrence, whereby rates of terrorism are reduced (Gibbs, 1968; Paternoster, 1989b).

Within the criminological literature, empirical studies have primarily focused on the implementation of physical means to make terrorism harder or less attractive to commit in line with restrictive deterrence (see Carson, 2014; Clarke and Newman, 2006; Dugan, Lafree, and Piquero, 2005; Fisher and Dugan, 2016a; Morris, 2015). Despite the

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[3] "Crimes will be less frequent, in proportion as the code of laws is more universally read, and understood; for there is no doubt, but that the eloquence of the passions is greatly assisted by the ignorance and uncertainty of punishments… Hence we see the use of printing, which alone makes the public, and not a few individuals, the guardians and defenders of the laws. It is this art which, by diffusing literature, has gradually dissipated the gloomy spirit of cabal and intrigue. To this art it is owing, that the atrocious crimes of our ancestors, who were alternately slaves and tyrants, are become less frequent" (Beccaria, 1764a: 13).

longstanding political popularity of deterrence-inspired legal and policing policies and their widespread implementation (Jenkins, 1982), evaluations of these policies have often failed to detect any deterrent impacts on terrorism (Carson, 2014; Dugan, Lafree, Piquero 2005; Lafree, Dugan, and Korte, 2009). With evidence also emerging that many of these policies result in violent backlash from terrorist groups (Lafree, Dugan, and Korte, 2009), acts of terrorism may be specifically designed to provoke these disproportionate responses from governments in order to serve political ends (Carter, 2012; Kydd and Walter, 2006). Drawing upon this theoretical heritage, US presidents often provide salient reminders of the certainty, severity, and celerity of punishment for engaging in terrorism (Bartolucci, 2012: 562; Erjavec and Volčič, 2006). Concordantly, it is of central theoretical and policy importance for the field of criminology to examine whether speeches such as the following, delivered by President Gerald Ford on October 10th, 1976, foment violent backlash or deter acts of terrorism.

> Within the last few months, we have witnessed a new outbreak of international terrorism, some of which has been directed against persons who carry the important burdens of diplomacy… These acts cannot and will not be tolerated in the United States, nor should they be tolerated anywhere in the world. Preventing or punishing such acts is a prime concern of this Government and one which I will pursue with all the force of this office. Today, I am pleased to affix my signature to three documents which once again demonstrate the commitment of the United States to sustain its struggle against international terrorism… The Act for the Prevention and Punishment of Crimes Against Internationally Protected Persons (H.R. 15552) will serve as a significant law enforcement tool for us to deal more effectively with the menace of terrorism and will assist us in discharging our important responsibilities under the two international conventions which I am today authorizing for ratification. An important feature of this bill will be to give extra territorial effect to our law in order to enable us to punish those who commit offenses against internationally protected persons, wherever those offenses may occur (Ford, 1976a).

Terrorists respond to more than just the threat of punishment however, and they display complex decision-making skills (Victoroff, 2005). Originating from similar theoretical traditions within criminology, a growing body of literature suggests that terrorist groups engage in rational decision making that extends beyond assessing whether terrorists are deterred from committing actions (Sederberg, 1995). Conflicting with traditional criminological conceptions of deterrence, Dugan and Chenoweth (2012) have demonstrated that terrorism may also be reduced by government actions that are conciliatory. In this seminal study, Dugan and Chenoweth (2012) exhibit that within specific tactical periods, Palestinian terrorism decreased following conciliatory actions by the Israeli government. Recent findings further suggest that government actions not traditionally linked with terrorism may also influence its incidence. Fisher and Dugan (2017), present evidence from the Philippines, Turkey, and the United Kingdom showing that when governments are perceived to respond well to natural disasters, subsequent terrorism may decrease. Findings such as these provide a basis for exploring a broader range of policy options for reducing terrorism beyond target hardening and traditional punitive criminal justice responses. If understood well, these additional tactics could be used to reduce the likelihood of future attacks.

At present, mounting theoretical and empirical evidence suggests that non-material actions including public communications by a government may reduce subsequent terrorism. Congleton (2002) argues that terrorism can be seen as the strategic use of violence to send political messages, which is but one of a plethora of tactics that can be used to influence government decisions and actions. Terrorism can thus be seen as an attempt to exert disproportionate influence on public policy, and Congleton (2002)

further suggests that the rational impetus behind these tactics and their likelihood of success should decrease in accordance with efforts to address terrorism. Accordingly, public communication is an essential component of government responses to terrorism (O'Hair, Heath, Ayotte, and Ledlow, 2008). Dugan and Chenoweth (2012) demonstrate that terrorist groups respond to more than just physical counterterrorism policies. Presidential communications in particular are an important policy tool that can be used to exert authority, even against the will of other political bodies, that could influence terrorist decision making and thereby alter the incidence of terrorism (Arthur and Woods, 2013; Rottinghaus and Maier, 2007).

Counterterrorism and the Presence, Variation, and Context of Public Communications

The ability of public communications to provide incentives and disincentives to engage in terrorism may vary based on their frequency, sentiment, and political context. Within political parlance, it has frequently been assumed that merely giving public attention to the presence of terrorism and the actions of terrorist groups can lead to increased violence (Neumann, 2007; Sederberg, 1995). From this perspective, as the number of presidential communications addressing terrorism increases, so would the incentives for subsequent terrorism. This dissertation quantitatively examines this prominent claim and tests whether public communications regarding terrorism, from US presidents or their press secretaries, lead to increased terrorism. Presidential discussions of terrorism however can have the potential to decrease subsequent terrorist violence by acknowledging the conflict. Providing evidence from terrorist conflicts in Northern Ireland and the Philippines, Toros (2008) argues that public discourse that legitimizes terrorist groups could create a pathway to deescalating violence. As such, whether

increases in the volume of US presidential communications that politically acknowledged the conflict can decrease subsequent terrorism are examined.

Presidential communications regarding terrorism and counterterrorism vary in content and sentiment (Sarfo and Krampa, 2013). This variation provides a particular opportunity to assess whether different qualities of communication have the potential to increase or decrease terrorism. Drawing upon restrictive deterrence and rational choice theories, this dissertation asserts that the positive or negative sentiment of US presidential communications regarding terrorism displays the benefits or costs for engaging and not engaging in terrorism, thus impacting decisions to commit terrorist violence. Specifically, communications that are negative or hostile in sentiment may deter terrorists and decrease subsequent terrorism by demonstrating negative consequences for terrorist acts. Conversely, and in line with the aforementioned rational choice framework, hostile communications that have a negative sentiment may also incite increased terrorist violence as a backlash. In line with Dugan and Chenoweth's (2012) findings that government actions could also provide incentives for not engaging in terrorism, more positive presidential communications may placate terrorist grievances, increase the perceived benefits for not using violence, and reduce subsequent terrorism. However, by using a positive sentiment, the president could be perceived as weak, and thus lead to increased terrorism that seeks to capitalize on this less combative rhetoric. Making use of the variation in the sentiment of US presidential public communications concerning terrorism, this dissertation documents variations in the sentiment of these public communications concerning terrorism and then examines the impacts of variation in the

sentiment of public communications used to address terrorism across presidential administrations.

Terrorism is also intrinsically related to the political environment in which it occurs. As such, even qualitatively similar government actions may yield quantitatively different outcomes for terrorism depending on the political period (Dugan and Chenoweth, 2012). For any given nation, the political ideology underlying the terrorist threats may also vary over time. Consequently, any analysis of the relationship between public communications and subsequent terrorism must take into account the political environment. Although there is often continuity in the themes, rhetoric, and political priorities in presidential speech that endure across administrations (Kuehl, 2012), the impacts of both the incidence of communications regarding terrorism and their sentiment are consistent across presidential administrations are examined.

The impact of US presidential communications on terrorism may also be a function of each president's political popularity and the tenure in office. Foreign policy crises in particular may lead to increases in an individual president's authority and power to affect policy (Young, 2013), and thus the influence of an individual US president may wax and wane over time. Public support also plays a role in determining a president's impacts, as unpopular presidents often only succeed in antagonizing public opinions when attempting to influence policy (Sigelman and Sigelman, 1981). As presidents with public approval ratings that are significantly higher or lower than average are also more likely to adopt unpopular policy positions (Canes-Wrone and Shotts, 2004), both the nature and impact of presidential public communications could be influenced by public

approval ratings. While the incidence of terrorist attacks does not appear to impact US

presidents' popularity (Randahl, 2016),[4] it is important to examine the reverse

relationship. Terrorist groups may rationally calculate that their attacks would have

greater political impact under presidents with lower public support. If true, terrorist

organizations would be more likely to respond with violence to public communications

by presidents with lower than average approval ratings. Additionally, presidents with

above-average approval ratings may incite less violence from their public

communications as any attacks would be less likely to result in political gains for the

terrorist organization. Concordantly, this dissertation finally examines whether the

terrorist response to US presidential communications regarding terrorism is conditioned

on the president's public favorability.

Overview of the Study

Seeking to identify the role that public communications by governments have

played in existing counterterrorism strategies, this dissertation examines US public

communications concerning terrorism delivered by US presidents and their press

secretaries between 1970 and 2014. Drawing upon the 6,001 transcripts collected by the

American Presidency Project during this period (Woolley and Peters, 2016), quantitative

analyses of these communications were conducted in order to estimate the impact of the

quantity and sentiment of presidential communication concerning terrorism on

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[4] It should be noted that George W. Bush's approval rating rose from 51% for the immediately before the September 11th attack to 85% for the period directly afterward; the highest approval rating observed for any US president between 1970 and 2015. This 34% increase in public approval between consecutive polls also marks the largest increase in favorability in the observed period. Despite this individual instance however, Randahl (2016) demonstrates that there is little empirical evidence to suggest that US presidential approval ratings in general are impacted by the incidence of terrorism.

subsequent terrorism aimed at US targets. Exploring the impact of political context, this dissertation examines whether any observed relationships are dependent on communications being delivered by the president directly, as opposed to their press secretaries, whether they vary across presidential administrations, or whether that relationship is dependent upon the level of public approval or disapproval of the president.

Chapter 2 begins by providing a brief overview of the theoretical and empirical literature on restrictive deterrence and rational choice are then examined. Drawing upon these insights, these perspectives are then applied to terrorist decision making. The key findings are then summarized drawing upon the specific literature that examines policies based on deterrence and rational choice. Chapter 2 then synthesizes these findings to suggest a series of hypotheses to examine the impact of presidential communications on terrorism targeting the US.

Chapter 3 explores the nexus between public communications and terrorism by summarizing the previous literature and exploring how terrorist organizations use public communications to achieve their goals. It then examines many longstanding political beliefs regarding the impact of government communications on violence by summarizing the extant literature that has sought to empirically document its impacts. Drawing upon this literature, this chapter suggests a number of important communication characteristics that could affect terrorism. It concludes by arguing that multiple empirical approaches are required to contextualize and understand any observables impacts on terrorism and to inform strategic counterterrorism policy.

After examining how central public communications are to terrorism, for both terrorists and governments, the Chapter 4 explores the context for understanding the impacts of presidential communications on terrorism. Given that national leaders speak publicly about terrorism, this chapter begins by justifying the selection of using US presidents to examine the potential links between public communications and terrorism. Following this discussion, this chapter briefly outlines the terrorist threats faced by each of the eight presidential administrations that fall within the scope of this dissertation. This chapter also describes important developments in communication media across the period between 1970 and 2014, and discusses key differences across presidential administrations with regard to their public communication strategies and the characteristics of the terrorism that were faced.

Chapter 5 is devoted to outlining the data and methods that were used to examine the previously described hypotheses. After revisiting the hypotheses, each of the data sources that were used to create the variables measuring terrorism, presidential communications, the mediating, and control variables are presented. The strengths and weaknesses of each data source are outlined. After reviewing the multiple autoregressive processes identified by the literature, this chapter then presents that structural equation modeling (SEM) is an appropriate method for structuring the analyses in light of these observations.

Chapter 6 then presents the findings generated from these analyses. Beginning with a description of the distributions of the key independent and dependent variables, this chapter presents the findings from the primary models that were used to test each of

the four hypotheses. In addition to these primary analyses, this chapter also presents the results from a series of sensitivity analyses that were conducted for each hypothesis.

This dissertation concludes in Chapter 7 with a discussion of the conclusions, limitations, and future steps for research examining the impact of presidential communications on subsequent terrorism.

Chapter 2: Restrictive Deterrence, Rational Choice, and Terrorism

Acts of terror are designed to elicit political responses (Shpiro, 2002). Consequently, focusing solely on the violent outcomes of terrorism may obscure central observations and potential means to reduce its incidence (Sederberg, 1995). While terrorist organizations may not necessarily expect specific attacks to achieve their explicit end goals, the attacks are designed to influence an audience's behavior and attitudes, and to indirectly achieve stated political interests (Badey, 1998; Laqueur, 1999; Victoroff, 2005). Given that acts of terrorism only directly affect small groups directly, public communications present a means for terrorists to maximize the impact of violence, as well as a method for governments to potentially stymie this strategy (Shpiro, 2002). In fact the leader of Irish political party Sinn Fein, Gerry Adams refered to terrorism as a form of "armed propaganda" (Sharrock, 2001: 1). Whether from terrorist organizations or by those responding to terrorism, public communications play a central role in shaping the behavior of those directly and indirectly involved in terrorist conflicts. This drawn out relationship between terrorism and its intended goals demonstrates how terrorist organizations operate over long temporal horizons that require a somewhat sophisticated understanding of political processes. Drawing upon this logic, this dissertation argues that terrorist actions are the product of rational decision making, and presidential public communications provide a plausible policy measure to alter the perceived utility of engaging in or abstaining from terrorist violence, consequently affecting the rational calculus of terrorist organizations.

This chapter begins with a brief overview of how governments communicate with their constituencies and their dissenters. This chapter then outlines the two key theoretical

perspectives that are used to explore terrorist organizations' decision making: restrictive deterrence and rational choice. After summarizing each theoretical perspective and its underlying assumptions, the chapter then presents the major findings from the empirical literature. Drawing upon this discussion, it presents the key differences in predictions between these two theoretical traditions to demonstrate that assuming characteristics of terrorist decision making may inadvertently lead to increased terrorism. These discussion are then used to provide a basis for testing each of these theoretically derived models. This chapter then uses each framework to suggest a series of competing hypotheses regarding the impact of US presidential communication on subsequent terrorism targeting the US.

Restrictive Deterrence and Crime

Stemming from the assertion that individuals refrain from committing crime when the perceived costs from punishment exceed the likely benefits from crime, deterrence theories have a rich history within the field of criminology. Drawing upon the work of enlightenment scholars such as Beccaria (1764a) and Bentham (1789), this perspective holds that when the severity of the punishment exceeds any benefits gained, there is an inverse relationship between the certainty and celerity of punishment with crime. This intuitively appealing theory contends that human action is influenced by the likely punishments for engaging in crime, and people will not engage in an action unless it has potential to increase their wellbeing or utility. Within criminology, this has formed the underlying and enduring prediction that individuals may be deterred from committing a crime if the severity, certainty, and celerity of punishment exceed the perceived utility of the crime (Nagin, Solow, and Lum, 2015). However, rather than using it solely as a

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means for predicting and understanding crime, early deterrence scholars were more concerned with presenting principles to reform criminal justice and punishment policies (Paternoster and Fisher, 2017). Consequently, for more than 250 years, the certainty and severity of punishment in particular have formed the foundation of nearly all contemporary theories of deterrence and have been the inspiration for copious criminal justice policies globally (Nagin, Solow, and Lum, 2015).

Within the considerable body of criminological literature on deterrence, this theoretical domain has developed into several separate but interconnected perspectives (Jacobs, 2010; Paternoster, 1989b; Stafford and Warr, 1993). Deterrence-based laws and policies can be general in nature by preventing would-be offenders from offending; or they can be specific by stopping perpetrators from reoffending following their personal experience of punishment. Within attempts to deter terrorism, attention has largely been limited to general deterrence due to data constraints and policy priorities. Given that specific deterrence requires observing how individuals respond to receiving punishment, testing specific deterrence hypotheses would require collecting individual data from terrorists who routinely demonstrate the ability to avoid detection (Jacobsen, 2010). Combined with the high mortality rate for those involved in terrorist conflicts (Holcomb et al., 2007), collecting defensible samples with consistent measurements would be highly encumbered by non-random attrition due to death (Haviland, Jones, and Nagin, 2011).

Beyond these shortcomings, Ross and Gurr (1989) argue that general deterrence is more important for counterterrorism policy. Principles of general deterrence are behind governments attempt to dissuade potential terrorists from committing acts of violence

through anti-terrorism laws, target hardening, and threats of punishment (Clarke and Newman, 2006; Gibbs, 1989; Ross and Gurr, 1989). Particularly when viewing terrorism at the national level, the most appropriate perspective from which to view the impact of counterterrorism policy efforts is the net national impact of deterrence policies through general deterrence.

Ross and Gurr (1989) note that the overall impact of deterrent intervention operates primarily through vicarious exposure and perceptions. Terrorist organizations and their constituencies perceive punishments and other anti-terrorism policies differently than those subjected to punishment, as they have greater terrorist capabilities than detained offenders. Consequently the specific deterrence perspective, while important, is secondary in comparison to the general impacts of counterterrorism efforts, as interventions could yield net increases in terrorism despite reductions achieved through incapacitation and specific deterrence. Following this logic, this dissertation focuses explicitly on general deterrence and its net impacts on terrorism in order to theoretically situate strategic counterterrorism decisions that governments make.

Deterrence can also be absolute in nature, wherein individuals abstains from crime due to their perceived risk of suffering punishment, or restrictive, wherein they offend less frequently (Gibbs, 1975; Jacobs, 2010; Paternoster 1989b). No matter how persuasive, logical, or stirring a speech is, it is unlikely that terrorists would disengage entirely following any presidential communication (see Schudson, 2003). As such, absolute deterrence is unlikely, and restrictive deterrence is the more appropriate theoretical lens through which to view the impacts of presidential communications on terrorism and is consequently used in this dissertation. However, given that this research

relies on general deterrence using aggregate data, its findings will be unable to adequately differentiate between restrictive and absolute deterrence. Consequently, while restrictive deterrence is the most plausible theoretical pathway for potential impacts, subsequent studies focusing on individual perpetrators of terrorism would be better suited to empirically evaluate this claim.

During the previous two and a half centuries, numerous seminal empirical pieces have advanced and refined theories of general deterrence within the criminological literature. Early studies conducted by Gibbs (1968) and Tittle (1969) suggested that the certainty of punishment had a greater and more direct impact on aggregate crime rates in the US, supporting Beccaria's (1764a) assertion that the certainty of punishment carries more weight compared to the severity of punishment in deterring crime.[5] Although these studies advanced criminological debate, they have been criticized for conflating deterrent and incapacitation effects (National Research Council, 1978). Similar challenges have also limited efforts to isolate the impacts of deterrence. Despite employing longitudinal designs to better disentangle these concerns, subsequent studies are criticized for assuming that the imprisonment rate is a direct measure of the certainty of punishment. Indeed, Durlauf and Nagin (2011) suggested that these studies provide little useful information on deterrence.

Recent studies employing instrumental variable approaches have been more successful at identifying the general deterrent impact of different criminal justice policies.

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[5] "Crimes are more effectually prevented by the certainty, than the severity of punishment… The certainty of a small punishment will make a stronger impression, than the fear of one more severe, if attended with the hopes of escaping; for it is the nature of mankind to be terrified at the approach of the smallest inevitable evil" (Beccaria, 1764a:36).

Using this method, Levitt (1998) and Johnson and Raphael (2012) have suggested that increased incarceration rates are able to reduce crime. However, Johnson and Raphael (2012) also suggest that this impact diminished between 1991 and 2004 compared to the period between 1978 and 1990. Echoed by experimental research conducted by Hawken and Kleiman (2009) and Kleiman (2009), evidence also suggests that highly certain punishments can effectively deter people who had not previously been impacted by other criminal justice deterrence efforts. Although Duriez, Cullen, and Manchak (2014:57) have accused these findings of providing a "false sense of hope," Kleiman, Kilmer, and Fisher (2014) present a range of independent findings suggesting that swift, certain, and fair punishments are indeed able to deter crime.

This literature has revealed other important insights relevant to the study of terrorism. It has long been established that successful deterrence depends on how well the message is transmitted to the public (Geerken and Gove, 1977). Thus, for actual decision making, perceptions of risks and rewards are more important than objective probabilities of punishment (Durlauf and Nagin, 2011; Nagin 1998; 2013). Stated simply, if potential offenders are unaware of a policy, that policy cannot impact their decision to engage in crime. As mentioned in the introduction, communication of the penalties and implementation of criminal justice policies is an essential component of deterrence theory that Beccaria (1764a) explicitly noted. Theoretically, without potential terrorists' knowledge of the likely consequences of a criminal action, the mechanism for these policies yielding any impact on terrorism is unclear. While strategic effectiveness in particular operations often requires withholding counterterrorism practices from the

public (Shpiro, 2002), communicating about these efforts could have broader deterrent impacts by influencing other potential terrorists' perceptions.

The criminological literature has also revealed that the nature and outcomes of criminal decisions vary greatly across situations and offenses (Clarke and Cornish 1985; Loewenstein 1996). Particularly in cases where individuals experience emotional arousal, the rational decision-making processes targeted by deterrent policies could affect the re-weighting of short-term and long-term benefits (Bouffard, 2002). Although emotions such as anger are unrelated to perceptions of punishment, high levels of anger could erode the deterrent value of these interventions (Carmichael and Piquero, 2004). As such, rather than assuming pure rationality when analyzing the deterrent impacts of any given policy, this literature suggests that rationality is instead "bounded," whereby individuals settle for solutions that appear "good enough" in the moment, through the lens of their current emotional condition, instead of objectively maximizing their utility (Berrebi 2009:170; Simon, 1982).

Deterrence and Terrorism

At this point only a handful of studies have tested the effects of general deterrence on terrorism. Despite the limited volume of these studies in comparison to other crimes, they have revealed important insights regarding whether terrorists may be deterred from committing acts of violence. Examining the introductions of metal detectors and security personnel in airports, Dugan, Lafree, and Piquero (2005) found that the risk for transportation-motivated hijackings was reduced in line with the predictions of deterrence. Despite this finding, the introduction of security measures aimed at increasing the certainty of punishment were not observed to reduce terrorism-motivated hijackings

(Dugan, Lafree, and Piquero, 2005). Findings from other terrorism studies have also contradicted the predictions of deterrence, as policies aimed to deter terrorism were instead associated with subsequent increases through possible backlash effects (Argomaniz and Vidal-Diez, 2015; LaFree, Dugan, and Korte 2009). LaFree, Dugan, and Korte (2009) examined six UK strategies aimed at reducing political violence in Northern Ireland from 1969 to 1992. Only one of the six operations, Operation Motorman, which deployed more than 30,000 armed service personnel, was associated with a reduced risk of terrorist violence (LaFree, Dugan, and Korte 2009). Similarly, Argomaniz and Vidal-Diez (2015) found that Spanish counterterrorism policies[6] aimed at deterring terrorism committed by the Euzkadi Ta Askatasuna (ETA) were more likely to increase terrorism than to deter it.

Findings from more recent studies have been more consistent with the predictions of deterrence. Carson (2014) found that two legislative changes that increased the cost of eco-terrorism in the US resulted in subsequent risk reductions. Perry, Apel, Newman, and Clarke (2016) observed similar findings consistent with deterrence, with regard to suicide bombings occurring in Israel following the introduction of the "West Bank Barrier". Although framed in terms of situational crime prevention, the authors note that the mechanism for the reductions they was observed through deterrence, "they are deterred by the perceived increased risk of offending and discouraged by the perceived increase in the effort needed" (Perry et al., 2016: 20). However, previous literature on counterterrorism in Israel between 1968 and 1986 has concluded that in this conflict, any

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[6] These interventions included: the introduction of laws, deportations, extraditions, and a series of police raids.

deterrent impacts are often short-lived (Le Vine and Salert, 1996), echoing criminological observations that deterrent impacts on crime decay over time (Koper, 1995; Nagin, 1998; Sherman, 1990).

Taken together, these studies provide mixed evidence as to whether government policies are able to deter acts of terrorism through increasing the costs of these criminal acts. Although the introduction of a large-scale security barrier over a period of twelve years (Perry et al., 2016) and the deployment of 30,000 armed service personnel (LaFree, Dugan, and Korte, 2009) were found to be successful at deterring terrorism, many governments lack the resources required for these interventions, especially considering other resource constraints. The majority of examined policies either failed to reduce terrorism or required substantial resources. While Carson's (2014) findings demonstrate that legislative changes regarding punishment can be leveraged to reduce eco-terrorism, the extant literature provides only limited support for the claim that increasing the certainty, severity, and celerity of punishment may deter terrorism.

These examples argue and demonstrate that actors may be deterred from crime and terrorism by more than the perceived certainty, severity, and celerity of official criminal sanctions. This has also been recognized in the growing body of criminological literature investigating the impact of informal sanctions on deterring crime, and has since become a central part of the theoretical deterrence model (see Anderson, Chiricos, and Waldo, 1977; Nagin, Solow, and Lum, 2015). While informal sanctions are often portrayed as an addition to the classical deterrence model, Beccaria's (1764) *On Crimes and Punishments* presents that the conveyed sentiments of the law, the judiciary, and especially of public officials are inherent in the mechanism of deterrence. In numerous

places Beccaria (1764:38) argues that deterrence can only be achieved when the

sentiment of laws and punishment are able to overcome "the natural sentiments of

mankind [sic.]… when the contrary is his greatest interest." Within Beccarian deterrence

(1764: 44), conveying moral sentiment through criminal justice policies and public

advertisements was intrinsic to "sound policy, which is no other than the art of uniting,

and directing to the same end, the natural and immutable sentiments of mankind."[7] From

this perspective, both the sentiments conveyed through morality and social institutions act

in concert with the threat of punishment to unite a population and influence their

decisions to dissuade them from their individual natural interests and criminal conduct.

Within classical deterrence, through publicly conveying messages with sentiment that

affirms pro-societal actions and decries criminal acts, individual decision making is

altered even on a sub-conscious level.

> *To develop the sentiments of one's own heart, is an art which education*
> *only can teach; but although a villain may not be able to give a clear*
> *account of his* [sic.] *principles, they nevertheless influence his* [sic.]
> *conduct.* (Beccaria, 1764:53).

Within classical deterrence theory it can concordantly be seen that without

the conveyed sentiment many potential punishments would be unable to deter

crime – especially crimes founded upon alternative social and political views such

as terrorism. Drawing upon this perspective, the importance of conveyed

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[7] It should be noted that Beccaria considered that the conveyed anti-criminal sentiment would not always be successful in deterring crime. Indeed, his work also suggests that the sentiment of the law and of governors would eventually be dismissed and potentially lead to increased violence when these sentiments and accompanying criminal justice policies were not in line with natural human sentiment. *"*No advantage in moral policy can be lasting, which is not founded on the indelible sentiments of the heart of man. Whatever law deviates from this principle will always meet with a resistance, which will destroy it in the end; for the smallest force, continually applied, will overcome the most violent motion communicated to bodies" (Beccaria, 1764:53).

sentiment can be seen to be increased when the objective certainty and celerity of punishment is low. Particularly in the absence of formal sanctions for deterrence, the ability to instill informal or moral sanctions through conveying sentiment provides an important policy mechanism for deterring crime and terrorism. As will be discussed in greater detail in the following chapter, there is theoretical reason grounded in classical deterrence theory that the presentation of alternative political narratives and the portrayed sentiment of these communication regarding terrorism may reduce crime and terrorism through deterrence.

Despite the mixed findings empirical findings and the oversimplification of classical deterrence, these patterns still indicate that terrorists engage in rational decision-making processes. From the perspective of deterrence, or any theory that assumes rational actors, specific knowledge of terrorist organizations' beliefs and preferences should contribute to better understanding and prediction of terrorism. If terrorists are not rational however, their behavior could not be explained through the above frameworks, as they would yield no observable systematic trends except through chance. Albeit contradictory, the observable patterns within the above studies' findings suggest at least some rational component to terrorist decision making. Consequently, they suggest that terrorism is a strategic choice based upon social conditions and perceived consequences. However, as will be discussed further, the deterrence perspective on its own appears insufficient to elucidate these processes.

Communication and Deterrence: A Necessity or a Double-Edged Sword?

An alternative explanation for this pattern of findings is that any deterrent impacts are conditional on the actor's knowledge of the intervention. Without advertisement of the policy, even traditionally successful counterterrorism strategies could be doomed to fail. As previously discussed, knowledge of the punishment is an essential component of deterrence (Beccaria, 1764a). While not recorded in the aforementioned studies, differing levels of exposure among each of these interventions may be responsible for the divergent findings. The high-investment policies that resulted in reductions in terrorism observed by LaFree, Dugan, and Korte (2009) and Perry et al. (2016) were likely also more highly publicized, whether intentionally or unintentionally. In Carson's (2014) analysis, substantively similar interventions yielded empirically divergent findings, which would be expected if their levels of public exposure varied. This explanation is consistent with the growing criminological literature concerning the impact of ambiguity and deterrence. Communications publicizing policies could reduce ambiguity regarding the certainty and severity of punishment, thus influencing criminal decision making (Nagin, 1998; Sherman, 1990). Empirically, Loughran, Paternoster, Piquero, and Pogarsky (2011) found that when the chance of detection is high, less ambiguous policies have more deterrent value than numerically equivalent but more ambiguous interventions. As such, by removing ambiguity and advertising that punishment is likely to be certain for acts of terrorism, targeted public communications could enhance deterrence.

Despite this potential, it has been a long-held fear that publicizing interventions would undermine their effectiveness by providing terrorists with the opportunity to adapt prior to their implementation (Shpiro, 2002). Given the ubiquity of potential terrorist

targets (Clarke and Newman, 2006; Dugan and Fisher, 2015), when confronted with additional information regarding the allocation of counterterrorism resources, terrorists may seek out other "softer" targets (Asal et al., 2009). However, Asal et al. (2009) suggest that target selection and particularly the selection of "softer" civilian targets for terrorism is driven more by ideological concerns and the desire to promote fear in a population. As such, even though potential targets may be abundant, implementing well-communicated strategies focused on ideologically or strategically desirable targets may still plausibly yield deterrent impacts (Dugan and Fisher, 2015).

Statistically detecting these deterrent impacts is problematic given the rare nature of terrorism. As terrorism is a rare occurrence in many contexts, even in the absence of successful counterterrorism measures, the interval between attacks could be years (Lynch 2011). This renders it essentially impossible to statistically determine at most levels of temporal aggregation whether the absence of terrorism is a product of counterterrorism, as the counterfactual is unobservable. Indeed, this may explain the null findings on the impact of metal detectors and security personnel at airports on terrorist-related hijackings observed by Dugan, Lafree, and Piquero (2005). Extending this argument, policies aimed to deter could still yield counterterrorism benefits even though widespread policies following the priorities of these theories may not show any appreciable effect on terrorism (Morris 2015).

Another critique of communicating counterterrorism messages is that any engagement with terrorist groups could legitimize their messages and grant greater public exposure to their political views (Jenkins, 1982; Neumann, 2007; Shpiro, 2002). Terrorist organizations could interpret announcements of counterterrorism measures as

successfully eliciting a change in government policy, thus demonstrating the effectiveness of previous terrorist actions. This perspective suggests that all public communications regarding terrorism should be avoided in order to prevent benefitting terrorist organizations. This extension of deterrence suggests that terrorist organizations may benefit even when a president publicly presents deterrent messages that aim to minimize the occurrence of terrorism.

Zero-Sum Terrorism Assumptions

> *You see, if you believe in pitting one group of people against another, you can't get anything done. If you believe that politics is zero-sum—we've got one winner and one loser—you're not going to get positive things done on behalf of the people* (Bush II, 2002).

The above deterrence perspectives are comprised of a range of underlying assumptions regarding the nature of humanity and terrorist conflicts. In addition to the long-held assumption that terrorists, like other humans, decide upon actions by rationally calculating the likely risks and rewards of their action, Turk (1982) argues that deterrence approaches assume that terrorist conflicts are zero-sum in nature. Zero-sum situations occur when one person's or organization's gain is equivalent their opponent's loss. Within zero-sum situations, the overall net change in benefit or utility is zero, regardless of the actual outcome. As such, gains in zero-sum interactions can come only at the expense of the opponent's losses. If true within terrorism conflicts, any gains for terrorist groups necessarily result in losses for the opposing government. Proponents of this perspective suggest that terrorism can be reduced only through deterrence or by diminishing the relative capacity of terrorist organizations (Anderton and Carter, 2006; Jindapon and Neilson, 2009; Turk, 1982). If such assumptions are correct, then the range

of possible counterterrorism actions are limited in scope to those that damage or harm terrorist organizations and/or their constituencies. Further, if terrorist conflicts are zero-sum, the consequences for policy may be magnified, with investments in non-productive counterterrorism strategies necessarily increasing the likelihood of terrorism by exhausting finite government resources (Sandler and Arce, 2007).

Many of the above concerns regarding the use of public communications for counterterrorism are derived from this zero-sum assumption. Relying on rhetoric doctrine rather than analytic understandings of terrorism, the politically intuitive appeal of deterrence-based policies with zero-sum assumptions have driven longstanding "no retreat; no surrender" counterterrorism policies replete within many global terrorism conflicts (Sederberg, 1995: 295). From these assumptions it is unsurprising to hear arguments that communications of any kind can undermine the militaristic strategies that are often politically lauded, particularly in the US (Papcharissi and Oliveira, 2008).

Opponents of this zero-sum perspective have criticized its simplistic understanding of terrorist decision making, and its ambivalence to analytic advances that would lead to dismissing this assumption (Frey and Luechinger, 2003; Sederberg, 1995; Shpiro, 2002; Victoroff, 2005). Rothe and Muzzatti (2004: 327) contend that publicly framing terrorism from a zero-sum theoretical perspective has "contributed to unnecessary levels of panic and fear, misguided public consciousness, and the development of legislation creating negative social ramifications yet to be seen." If the zero-sum deterrence assumptions are indeed *incorrect*, then policies adopted from the analytic misunderstandings derived therefrom could have the paradoxical impact of increasing terrorism and other social ills (Sandler and Arce, 2007). Adherence to the

zero-sum perspective on terrorism could thus increase terrorism by fomenting public

discord, antagonizing political opponents, and preventing the use of effective strategies

that may reduce terrorism through non-punitive means.

> *Today, we see the collapse of strongmen and fragile states breeding conflict and driving innocent men, women, and children across borders on an epic scale. Brutal networks of terror have stepped into the vacuum… Effectively, they argue for a return to the rules that applied for most of human history and that predate this institution: the belief that power is a zero-sum game, that might makes right, that strong states must impose their will on weaker ones, that the rights of individuals don't matter, and that in a time of rapid change, order must be imposed by force. On this basis, we see some major powers assert themselves in ways that contravene international law. We see an erosion of the democratic principles and human rights that are fundamental to this institution's mission; information is strictly controlled, the space for civil society restricted. We're told that such retrenchment is required to beat back disorder, that it's the only way to stamp out terrorism or prevent foreign meddling* (Obama, 2015).

While President George W. Bush (previous quote, page 39 referred to politics in

general, President Barack Obama (above) referred specifically to terrorism when clearly

stating that US policy should no longer adhere to zero-sum beliefs.[8] Indeed, despite the

prominence of the zero-sum rhetoric, Carruthers (1999) presents that in practice

counterterrorism institutions have adopted policies that are in opposition to these

assertions. Consequently in both rhetoric and policy, zero-sum perspectives are

inadequate frames through which to understand terrorism regardless of their prevalence

(Anderton and Carter, 2006; Jindapon and Neilson, 2009; Turk, 1982). It is thus

necessary to adopt a theoretical perspective that can account for the above criticisms to

zero-sum-based policies and can incorporate policy outcomes beyond deterrence.

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[8] It should be noted that this address falls after the time period being examined by this proposed dissertation.

Echoing the arguments outlined by Sederberg (1995), this dissertation theoretically engages with alternative forms of terrorist decision making to better understand the likely outcomes of policies that are designed to reduce terrorism. To this end, the following section outlines rational choice theory as an alternative to deterrence theories that assume a zero-sum relationship within terrorism conflicts.

Rational Choice

Assumptions of rationality within criminological theory are not unique to deterrence theories. They are inherent in control, opportunity, and rational choice theories as well. Similar to deterrence, rational choice theories argue that people make decisions about how they should act by comparing the costs and benefits of crime through rational processes. Unlike deterrence however, rational choice theories suggests that criminal decision making can be influenced through situational stimuli and a host of other motivations in addition to formal criminal sanctions (Lilly, Cullen, and Ball, 2016). More in tune with Simon's (1982) notion of bounded decision-making processes, rational choice theories recognize offenders "are generally doing the best they can within the limits of time, resources, and information available to them" (Clarke and Cornish, 2001: 25). Within the subjective utility models this perspective allows, criminal acts are just one of many possible outcomes and are influenced rationally by many sources, under the broader theoretical umbrella of rational choice theory (Matsueda, Kreager, and Huizinga, 2006). Importantly for counterterrorism, from a rational choice perspective, policy options beyond "simply deterring unwanted behavior through punishment" may also be theoretical justified (Dugan and Chenoweth, 2012: 598).

Although many scholars refer to Beccaria's (1764a) *On Crimes and Punishments* as the root of rational choice within criminology, his *An Attempt at an Analysis of Smuggling* (Beccaria, 1764b) arguably left the bigger influence on the development of rational choice theories (Paternoster and Fisher, 2017). Employing an economic perspective toward the study of crime, Beccaria (1764b) presented a mathematical representation for a merchant's decision to either legally spend money on imported goods and incur a tax, or alternatively to engage in smuggling to avoid paying the tax (see Equation 1 below). In the equation below, u is the value of merchandise being smuggled, x is the minimum amount of merchandise that would need to be profitable for the smuggler (unknown), and t/u is the tax rate. In this lesser known essay, Beccaria (1764b) suggests that the merchant's risk is proportional to the number of customs inspectors and inversely proportional to the volume of the merchandise being acquired. In examining the rational processes behind the decision for merchants to engage in smuggling, Beccaria (1764b) provided one of the earliest examples of what has come to be known as an intertemporal decision involving risk under uncertainty within the criminological rational choice literature (Paternoster and Fisher, 2017). Unlike Beccaria's (1764a) assertions on deterrence and the role of legal punishments, his understanding of smuggling introduced the notion that decisions can be modeled in the same manner that economics can be modeled, at least in theory,[9] and also should incorporate and balance multiple forms of costs and benefits for an actor.

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[9] According to Beccaria; "algebra [can be used] in the analysis of anything that is capable of increasing or decreasing, and to all things which exhibit mutually comparable relationships. Even political sciences can therefore makes use of algebra … political phenomena are highly dependent on many isolated decisions and human passions which cannot be specified precisely. A political system composed of numbers and calculations would be more suitable to the inhabitants of *Laputa* than to present-day Europeans" (Beccaria, 1764b: 1).

$$(1) \qquad\qquad x + \frac{tx}{u} = u$$

Developed further by Becker (1968) two hundred years later, rational choice theories of crime assume that offenders are no different from non-offenders, and at a basic level, humans are similar in terms of their desire to maximize the profitability of their behavior. In his updated economic model of crime, Becker (1968) presented an equation describing a would-be offender's decision-making calculus (see Equation 2 below). In this model, p is the probability of being detected in the commission of a crime, f is the severity of the sanction given apprehension, and y is the gain from successfully completing the crime without apprehension. From this perspective, an offender's expected utility is the weighted function of the costs and benefits of the crime, and individuals make decisions to commit crime by comparing their expected derived utility from crime with the expected utility of other possible actions (Becker, 1968).

$$(2) \qquad\qquad EU = pU(y - f) + (1 - p)U(y)$$

In Becker's (1968) model is it clear that rational choice theory is a separate theoretical perspective from deterrence theory. As it can be seen in the final term $[(1 - p)U(y)]$, the value derived from crime increases as y increases (the gains that are derived from offending). While deterrence scholars and researchers have focused almost entirely on the anticipated certainty and severity of sanctions to predict and understand criminal decisions, rational choice theories additionally predict that the anticipated benefits of crime are also central elements in criminal decision making (Paternoster and Fisher, 2017).

Criminological research conducted from the rational choice perspective has demonstrated that numerous possible sources of criminal gains including emotional gains can substantially influence offending decisions (Bouffard, 2002; Bouffard, Exum, and Paternoster, 2000; Nagin, 2007). Becker's (1968) model and its derivatives are consistent with deterrence theories, with regard to the impact of hypothesized changes in the certainty and severity of formal legal punishment. They also include other factors not limited to target hardening and the presence of guardians, which are directly captured by the final term in the above algebraic representation of rational offender decision making (Equation 2 on page 44). Concordantly, deterrence can be seen as one of many rival hypotheses within a broader rational choice framework.

Rational Choice and Terrorism: Beyond Zero-Sum

Terrorism researchers have criticized deterrence theory when used on its own for its inability to anticipate the different utility structures and reactions of terrorists (Victoroff 2005). As demonstrated in the previous section, rational choice is a broad and multi-dimensional theory for understanding human behavior that is able to account for a wide variety of utility structures that include strategic and political elements. This is an important distinction for both the theoretical understanding of terrorism and the development of counterterrorism policies. By focusing purely on deterrent policies, governments are limited to a set of strategies that are not tailored to the subject matter with which they are dealing. As such, this dissertation heeds Paternoster's (1989a) advice that deterrence should be tied into a larger theory of rational choice, and should be considered but one pathway related to criminal decisions that exists among many others within rational choice theories.

Within the more complicated utility structure inherent in rational decision making, which takes into account the potential gains from crime as well as non-punitive costs of committing crime, popular zero-sum assumptions become less viable. Dugan and Chenoweth (2012) showed that across political periods, government efforts to improve the benefits of non-terrorist actions were generally related to decreases in terrorism, rather than those decreases being solely a function of punitive efforts. Further, non-punitive government actions such as responding well to natural disasters may benefit both governments and terrorist constituencies, thus simultaneously benefitting terrorists and decreasing the likelihood of terrorism (Fisher and Dugan, 2017). In these cases, the sources of the underlying grievances may be placated, resulting in positive outcomes for one or both parties (Frey and Luechinger, 2002).

Combined with the empirical observation that terrorist attacks persist and often increase as a backlash to the threat of punishment (Dugan and Chenoweth, 2012; LaFree, Dugan, and Korte, 2009), studies employing a rational choice perspective have now demonstrated that governments and terrorist organizations may both simultaneously gain utility through placation or lose utility through backlash from counterterrorism policies. Consequently, this dissertation argues that little empirical evidence supports the popularly held beliefs that terrorist conflicts are zero-sum in nature, and further submits that other social and political contextual factors influence terrorist decisions rather than just the nature of punishment and policy.

A rational choice perspective is also compatible with other enduring empirical observations within the terrorism literature. Hamm (2004) and Kruglanski et al. (2009) have demonstrated that individuals may gain utility from engaging in terrorism by

fulfilling personal goals to be recognized or as part of a quest for personal significance. Such individuals thus placed lower relative concern on potential punishments that they may receive for their actions, and are more concerned with personal desires and the well-being of their constituency or political movement that may even be enhanced through punishment (Dugan and Chenoweth, 2012). However, the deterrence perspective should not be discounted entirely, as in addition to the aforementioned studies supporting deterrence, indiscriminate violent repression has been found to be associated with a reduction in insurgent attacks in Chechnya (Lyall, 2009). Concordantly, hostile government actions toward terrorists may either deter subsequent attacks or play into existing terrorist narratives and result in increased terrorism through backlash (Kydd and Walter, 2006; Mesquita and Dickson, 2007).

Similarly, positive actions toward terrorists or their constituencies may not necessarily result in reductions in terrorism. Such positive actions may be interpreted as displays of weakness, upon on which terrorist groups may capitalize through increased violence. Particularly when it comes to communication, Byman (2006: 403) asserts that positive communications "reward the use of terrorism, tangibly demonstrating that groups can kill innocents and yet become legitimate interlocutors." This potentially zero-sum scenario where terrorist organization gain political and strategic advantage at the expense of government's is one of the leading explanations as to why governments have generally explicitly been against negotiations and other forms of public communication (Byman, 2006). Concordantly, both positive and negative policy approaches to terrorist organizations may theoretically lead to increases or decreases in terrorism (Frey and Luechinger, 2002).

Drawing upon the above theoretical discussion regarding government communication and its potential links to terrorism, this dissertation introduces four sets of hypotheses. These hypotheses were selected in order to discern which aspects of government communications impact subsequent terrorism, and whether any observed impacts appear to support either deterrence or broader rational choice theories. As will be expanded upon in Chapter 4, this dissertation selected the United States (US) as an ideal context to examine these potential relationships given its global importance in counterterrorism (Erjavec and Volčič, 2006:298; Osuri and Banerjee, 2004). As the US government explicitly uses presidential speech to respond to terrorism (US Department of State, 2006: 4) and terrorists are known to receive and react to US presidential messages (O'Hair, Heath, Ayotte, and Ledlow, 2008; Payne, 2009; Toros, 2008), this dissertation focusses upon the impacts of US public communication delivered by either the president or presidential press secretary on subsequent terrorism.

This dissertation firstly examines whether the volume of government speech concerning terrorism affects subsequent terrorism. From this sentiment-neutral perspective, this dissertation will examines whether increases in the political *attention* granted to terrorism in the form of the number of public communications in each month concerning terrorism leads to an increase in subsequent terrorism, or whether increases in the number of public communications and greater *acknowledgement* leads to a decrease subsequent terrorism targeting the US. Concordantly, the first two hypotheses that this dissertation examines are:

Hypothesis 1a: **The number of speech acts by a government will increase subsequent terrorism (attention).**

Hypothesis 1b: **The number of speech acts by a government will decrease subsequent terrorism (acknowledgement).**

In evaluating the above hypotheses, it is important to note that meaningful heterogeneity in the content of these speech acts might be obscured by only examining the volume of government speech acts concerning terrorism. As such, the second set of hypotheses that this dissertation tests concern the sentiment of speech that is used in government speech acts. Drawing upon the above theoretical examination, the presence of positive or negative sentiment within these speech actions by each government will be examined to see how variation in speech impacts subsequent terrorism. Importantly for theoretically understanding the relationship between government communications and terrorism, the following hypotheses are designed in order to differentiate between deterrence theories and the broader set of rational choice theories that were previously discussed.

Hypothesis 2a: **Negative speech will be related to decreases in subsequent terrorism (deterrence)**

Hypothesis 2b: **Negative speech will be related to increases in subsequent terrorism (backlash)**

Hypothesis 2c: **Positive speech will be related to decreases in subsequent terrorism (placation)**

Hypothesis 2d: **Positive speech will be related to increases in subsequent terrorism (display of weakness)**

Each of the above hypotheses has been presented under the assumption that the relationship between government public communications and terrorism is consistent across presidential administrations. As this dissertation has previously argued that government speech derives its meaning from the specific political and social context that

it is delivered in (see Dugan and Chenoweth, 2012), it is vital to begin to examine whether the impact of public communications is conditioned by political factors or political regime changes.

Hypothesis 3: **The relationship between Presidential speech and subsequent terrorism will vary across administrations**

The final set of hypotheses test whether any observed impacts of government speech acts on subsequent terrorism are dependent on political forces that span across presidencies. Whereas Hypothesis 3 seeks to examine variation between presidential administrations, the Hypothesis 4 seeks to explore whether the impacts are invariant or whether there is important variation within presidential administrations. As the influence of an individual US president may vary over time, domestic public support also plays a role in determining the impact of presidents. As unpopular presidents may only succeed in antagonizing public opinions through their public communications and other actions (Sigelman and Sigelman, 1981), both the nature and impact of presidential public communications may be influenced by public approval ratings.

Hypothesis 4: **As public support becomes increasingly favorable or unfavorable (absolute value increases), the impact of presidential speech on subsequent terrorism will increase (clarity of the political situation/unity).**

Chapter 3: The Influence of Public Communication on Terrorism

Within criminology, deterrence and rational choice theories were not developed with public communications as the focus. As such, the previous hypotheses are theoretically applicable to any government action that could influence the rational calculus to commit terrorism. This chapter explains this dissertation's focus on whether public communications are able to influence the incidence of terrorism. It expands upon the discussion of the impact of presidential communications from the previous chapter, and further elucidates these hypotheses in light of the extant literature exploring a number of adjacent communications topics.

Public Communication and Terrorism

Over the course of the twentieth century and continuing at a more rapid pace in the twenty-first century, conflicts have been transformed by the involvement of interest groups that are "linked, informed, and mobilized by the media of communication" (Brown, 2003: 88). Now that public communication is seen as a domain for conflict in its own right, O'Hair, Heath, Ayotte, and Ledlow (2008) have argued that terrorism and potential government responses should be viewed through its lens. From a criminological perspective however, even if it is not the primary lens through which to understand terrorism, public communication can be seen as an intrinsic part of recent conflicts (Amble, 2012). This has been echoed in the practical efforts made by governments including the US, where an effective public communication policy has become an integral part of the politics of conflict and an essential element in international efforts against terrorism (Shpiro, 2002). Changing political expectations have made public communications a pivotal channel for negotiations and counterterrorism alike, despite

diplomacy and negotiations with sub-state actors traditionally being covert (Eban, 1998).

Further, it has been acknowledged that public communication may have the potential to

diminish terrorist violence directly (Byman, 2006; Sunstrom, Briones, and Janoske,

2013). Drawing upon this body of work, there is evidence that public communications are

relevant to terrorism and may impact the development of these conflicts.

The use of public communications to manage public opinion and frame modern

conflicts has been commonplace now for more than a century (Lasswell, 1927), with

communications developing into a crucial battleground for terrorism (Shpiro, 2002;

Amble, 2012). Public communications have been a prominent tactic for terrorist groups

that use them to garner support, gain greater attention through the media, and as a catalyst

for political change (Richards, 2004). The development of global communication

networks further encouraged organizations with both licit and illicit goals to use public

channels to advance their political positions and solicit support against governments

(Keck and Sikkink, 1998). Due to the widespread availability of independent formal

media outlets, the public may hear a plurality of views on any debate (Shpiro, 2002).

Numerous terrorist groups have used this independence to their advantage in the attempt

to fundamentally restructure political discourse for their specific political ends

(Bockstette, 2008). Also used as a means to legitimize alternate political, social, and

religious messages (Bockstette, 2008), terrorist groups use public communications to

justify the use of violence even when that violence contradicts their overall political

goals. According to Weimann (2004: 6), terrorist organizations typically do this through

claiming that they have:

no choice other than to turn to violence. Violence is presented as a necessity foisted upon the weak as the only means with which to respond to an oppressive enemy… The terrorist organization is depicted as constantly persecuted, its leaders subject to assassination attempts, its supporters massacred, its freedom of expression curtailed, and its adherents arrested. This tactic, which portrays the organization as small, weak, and hunted down by a strong power or strong state turns the terrorists into the underdog.

Terrorist organizations routinely employ these techniques, which have grown more effective as it has become easier for audiences to selectively consume the pluralistic media information available (Amble, 2012). These organizations have also strategically used public communications to augment the impact of violence. Shpiro (2002) describes how terrorist organizations often attempt to demonstrate their reluctance for violence by notifying local police and the media prior to bombings. Framed as a means to enable the evacuation of bystanders and thus minimize casualties, announcing terrorist attacks in advance also enabled terrorist groups such as the ETA in Spain and the IRA in the United Kingdom to maximize their public exposure by ensuring that the media had sufficient time to arrive at the scene and document the impending destruction. This remains an important concern for government counterterrorism efforts, particularly as terrorist organizations use public attention to build constituencies and maintain their support, which in turn can improve the organizations' longevity and survival (McCauley 2006).

These benefits for terrorist organizations present moral dilemmas for media organizations seeking to promote an informed citizenship without further incentivizing acts of violence. Shpiro (2002: 81) argues that in these cases journalists should "find a balance between satisfying public demand for information and providing terrorists with a willing stage for their violent acts." This balance may be hard to achieve in practice,

particularly given the recent proliferation of alternate media sources. Due to increased

media competition and consumers' ability to decide which communications they will

patronize (Strömberg, 2002; Amble, 2012), terrorist organizations have a wealth of

traditional and non-traditional media outlets to which they may turn to amplify their

messages. These conditions enable terrorist groups to present and control a public

narrative in the short term (Jenkins, 1982), with relatively little that media outlets can

implement in order to stymie the incentives for future acts of terrorism capitalizing upon

public communications. Importantly from the rational choice perspective presented in the

previous chapter, this indicates that public communications increase the likely benefits

that may be derived from terrorism, potentially leading to increased future terrorism.

Public Communications as Counterterrorism

Governments have a host of policy options that could be used to influence the

incidence of crime and terrorism beyond legislating and overseeing the applications of

laws and criminal justice. While much of the previous investigations within the terrorism

literature have been limited to investigating means to constrain physical opportunities for

terrorism (Lynch, 2011; Morris, 2015), governments can and have used public

communications in the attempt to alter the rational impetus for terrorist organizations.

Militaries and governments routinely employ communications strategies to engage with

terrorist conflicts, regardless of ongoing academic and political debates as to whether

public communications help or hinder the peaceful resolution of conflict (Carruthers,

1999). Further, a growing body of literature documents how private media companies

(Storie, Madden, and Liu, 2014), non-government organizations (Sundstrom, Briones,

and Janoske, 2013), and national governments (Amble, 2012; Bartolucci, 2012; Brown,

2003; Jenkins, 1982; Sarfo and Krampa, 2013; Zhang, 2006) use public communications to respond to terrorism. As Jenkins (1982) asserts, governments can use public communications politically to negate the aforementioned short-term gains garnered by terrorist organizations.

> *The rhetoric against terrorism almost always exceeds the amount of resources devoted to combatting it. Although governments have a clear advantage in the long run, they are almost always at a disadvantage in dealing with individual episodes. Terrorists create dramas in which they and their victims are central figures… Such perceptions may corrode the links between the governed and the government and may contribute to public support for drastic measures to counter terrorism* (Jenkins, 1982:17).

Public communications delivered by governments are thus also an essential part of counterterrorism strategies that are less extreme in nature. There is important heterogeneity within government communications regarding terrorism, and presidential communications in particular serve an important and unique function. Unlike the majority of government communications with a populace that are more akin to dialogue, presidential speech "*is* governing" and is monadic in nature (Ceaser, Thurow, Tulis, and Bessette, 1981: 159, emphasis in original; McMillan and Reagan, 1983; Moon, 2002). In their own words, President Carter asserted that when communicating the president needs to act as the "leader of the people" rather than a "head of government," and President Nixon would engage in "anti-rhetoric" that aimed to lower the voices of dissidents rather than engage with them (Ceaser, Thurow, Tulis, and Bessette, 1981: 158-160).

Continuing to the present day and exemplified within communications concerning terrorism, presidential communications are used specifically to discredit terrorist-propagated narratives through "the promotion of truthful and peaceful messages" (US

Department of State, 2006: 4). In line with Jenkins' (1982) characterization, one of the major goals of the public communications delivered by the president is to provide an alternative perspective to the draconian portrayal of the government offered by terrorist organizations' narratives (Carter, 2012; Kydd and Walter, 2006; Toros, 2008). Governments pursue this rhetorically by arguing that terrorist organizations are the actual oppressors (Zhang, 2007), as well as through promoting messages of resilience in the face of violence (McCrisken, 2011).[10]

Governments also use public communications strategically to diminish the impact of terrorist communications through direct appeals to the media to refrain from showing terrorist speeches, in order to diminish the volume of these messages (Shpiro, 2002). Appealing to the previously noted moral concerns of the media and stressing their autonomy, the following quote is one example of when US presidents and their press secretaries have also used public communications to directly entrust the media in negating terrorist communications. Such messages are also designed to establish perceptions of openness and cooperation with the media to enhance mutual confidence (Shpiro, 2001).

> *Dr. Condoleezza Rice, the National Security Advisor, this morning called a group of network executives to raise their awareness about national security concerns of airing pre-recorded, pre-taped messages from Osama bin Laden that could be a signal to terrorists to incite attacks. It was a very collegial conversation. At best, Osama bin Laden's message is*

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[10] "Our experience and reality itself shows clearly that these self-styled realists are wrong. Our open and public grappling with economic and social problems cannot obscure the extraordinary achievements of our society as a whole. The democratic nations are magnets for young students from all over the world. The democratic world is a center of intellectual and technological invention. It's a great focus of cultural creativity. It's undergoing a major resurgence of religious belief, and our political institutions establish and exhibit a resilience unmatched by any society in the totalitarian world… We have no reason to fear change, new ideas, or new problems. We do not rely on military invasions by so-called friendly neighbors, much less on terrorism, to sustain the idea of liberty. It stands on its own merit" (Carter, 1980a).

propaganda, calling on people to kill Americans. At worst, he could be issuing orders to his followers to initiate such attacks. Dr. Rice asked the networks to exercise judgment about how these pre-recorded, pre-taped messages will air. She stressed that she was making a request, and that editorial decisions can only be made by the media… I think it's fairly obvious. The means of communications out of Afghanistan right now are rather limited. One way to communicate outside Afghanistan to followers is through Western media. (Fleischer, 2001: 2).

Echoing the strategic calculus employed by the ETA and the IRA, the US government has also involved the media to enhance the impact of physical counterterrorism strategies. For example, Shpiro (2002: 81) notes that "timing of the first US military strikes against the Taliban seems to have been planned according to television primetime rating schedules and not only by military necessities." As governments may gain reputational regard from their stakeholders through overcoming and dealing with salient threats (Kaniasty and Norris, 2004), advertising successful counterterrorist operations in this manner demonstrates that both terrorist organizations and governments employ overlapping public communications tactics.

The above quote from President George W. Bush's press secretary Ari Fleischer (page 49) also exhibits that presidential press secretaries serve a key communication function that augments communications directly from a president. Towle (1997: 299) presents that presidential press secretaries are a pivotal arm of presidential communications, being either the "mouthpiece" or "representative" of the president on important policy matters. Similarly to the president, when acting as a "mouthpiece," press secretaries often communicate in a monadic fashion to disseminate information (Towle, 1997). When acting as a representative however, the press secretary "interprets the President and his activities" and their credibility and personality shape public perceptions

of the president (McMillan and Ragan, 1983; Spragens and Terwoord, 1980: 1). Given that press secretaries concordantly communicate as an extension of the president and employ similar monadic strategies, this dissertation argues that communications from presidential press secretaries are part of the suite of communications that US presidents employ.

The previous literature on the nexus between public communications and governments has relied primarily on theoretical arguments and qualitative analyses of individual events. Consequently, relatively little is known regarding the quantitative impacts of government communications on terrorism. This gap in the literature is particularly important as the handful of studies that have sought to quantitatively examine the impacts of presidential communications have produced findings that have contradicted many of the central assumptions made by the previously discussed studies. For example, while it has often been asserted that presidential rhetoric is important in shaping public opinion, "very few studies focus directly on the effect of presidential leadership on opinion" (Edwards 2003:26). While this literature has expanded since this claim with evidence showing that presidential public communications influence their public approval ratings (Druckman and Holmes, 2004; Kiousis and Strömbäck, 2010), perceptions of the current state of the economy (Cohen and Hamman, 2003), and the importance of drugs and crime (Oliver, 1998; Oliver, Hill, and Marion, 2011), overall presidential messages have had little to no impact on an audience's beliefs or attitudes (Schudson, 2003). However, Tedlin, Rottinghaus, and Rodgers (2011), suggest that this conclusion was premature and misses important and policy-relevant heterogeneity. While they conclude that overall presidential speech does not yield measurable impacts on

public opinions, they do find that the president's core constituency and their 'putative opponents' can be influenced by public communications (Tedlin, Rottinghaus, and Rodgers, 2011). Despite the predominantly null findings that previously predominated this literature, there is thus more recent evidence that presidential public communications may have an impact the opinions of those who are opposed to the government.

Whether an event is considered a terrorist act is a much-debated topic, and scholars have argued that definitions of terrorism are loaded with cultural biases and other assumptions (Bartolucci, 2012; Ruby, 2002). The US president however plays an important social role in defining acts as terrorism, with these designations being uncritically followed internationally with long lasting impacts (Bartolucci, 2012; Erjavec and Volčič, 2006; Osuri and Banerjee, 2004). Further affirming the monadic nature of presidential communications, these assertions pressured the obedience of others to accept these claims regardless of the evidence provided by presidents and their press secretaries (Bartolucci, 2012; Wolf, 2003). As presidents have latitude to selectively declare acts of terrorism and declarations of terrorism are dependent on political and other biases (Bartolucci, 2012; Ruby, 2002), it is likely that there would be some divergence between the politically subjective definitions used by presidents and any consistently operationalized definition of terrorism. Although investigating the impacts of this variation in the designation of terrorism falls beyond the scope of the present study, this use of this latitude is an important avenue for future research.

The Importance of the Frequency of Public Communications

US presidents use their public communications to gain media coverage for their policies, garner public support for their administrations, and influence other stakeholder

groups (Kiousis and Strömbäck, 2010). Beyond the messages directly delivered in these public communications, the behavior of previous presidents has indicated that there are also potential benefits for increasing the frequency of public communications. Particularly when presidents are in reelection years, when their approval rates have fallen, or following hard political decisions, US presidents increase the frequency of their public communications in the attempt to enhance their public support and to exert control over public narratives (Brace and Hinckley, 1993). Unlike routinized speeches such as the State of the Union addresses which have broad and resonant impacts (Young and Perkins, 2005), scholars have also advocated that presidents should increase the frequency of their non-routine public communications in order to gain support for their policies and increase their impact on stakeholders (Patel, 2004).

The frequency of public communications concerning terrorism has been one of the most debated elements of counterterrorism strategy. As it has been previously discussed, many have projected fears that any form of direct or indirect public communication with terrorist groups should be avoided in order to prevent benefitting terrorist organizations (Neumann, 2007; Toros, 2008). As any communication may increase the legitimacy of terrorist organizations and grant their political views greater national and international exposure (Jenkins, 1982; Neumann, 2007), it has been a tacit prediction that increases in public government discussions of terrorism would lead to increased terrorist violence. Consequently, it is of primary policy and theoretical interest to empirically test whether increases in presidents' publicly discussing terrorism increases subsequent terrorism.

From a rational choice perspective, the frequency of government public communications may have two different impacts on terrorism. Drawing on the previously mentioned argument, paying greater *attention* to terrorist conflicts (increases in the frequency of public communication concerning terrorism) may increase the incentives for terrorism, leading to an increase subsequent attacks. Amble (2012) however argues that governments cannot afford to ignore public communications in their efforts to combat terrorism, with Byman (2006) suggesting that engaging in communications with terrorist organizations is pivotal step toward peaceful resolution of these conflicts. Concordantly, acknowledging terrorist conflicts in what Byman (2006: 404) termed "diplomacy by declaration" can be used as a strategic means to instigate peace talks and reduce the impetus for violence. The *acknowledgement* of terrorist conflicts within public communications by governments may also increase civilian emergency preparedness and government preparedness for dealing effectively with acts of terrorism, reducing both the potential benefits from terrorism for terrorist organizations and costs of terrorism for civilians and governments (Lemyre, Lee, Turner, and Krewski, 2007).

The Importance of Sentiment in Public Communications

This dissertation has previously presented a number of examples of presidential communications regarding terrorism to demonstrate that presidents have used a variety of public communications strategies. These salient examples represent only a handful of the different public communications governments use to frame, control, and react to terrorist conflicts. In light of this variation, it is necessary to provide a framework to summarize the content of these communication techniques and examine their impacts on subsequent terrorism. Drawing upon the rational choice framework discussed in Chapter 2, this

section argues that variation in the sentiment of public communications concerning terrorism can elicit differential impacts on subsequent terrorism.

Sentiment is a crucial element of written and spoken human communications. Human communications naturally contain "expression of opinions, appraisals, attitudes, and emotions toward entities, events, and their attributes" (Dang-Xuan, Stieglitz, Wladarsch, and Neuberger, 2013: 799). These different elements express tone and value toward a subject, and shape how recipients perceive what is being discussed (Hornstein, Masor, Sole, and Heilman, 1971; Jervis, 2015; Kinder 1978). These expressions of tone and value are combined within the concept of sentiment and specifically include evaluative statements and predicative judgments (Liu 2011; Pang and Lee 2008). Particularly in high-volume information settings, sentiment plays a pivotal role in influencing others' decision making (Dubey, Rana, and Ranjan, 2016). Often in lieu or in spite of other information sources, individuals form their perceptions, evaluations, and decisions by analyzing other peoples' projected views (Dubey, Rana, and Ranjan, 2016). Individuals typically use sentiment unsystematically to form opinions, however researchers, businesses, and organizations have developed techniques to measure and analyze sentiment systematically (Liu 2011). Operationalized within a vast and growing literature from the field of computer science, "sentiment analysis is defined as the task of finding the opinions of authors about specific entities" (Feldman, 2013: 82).

Although sentiment has been expressed in a variety of manners, it is most commonly represented as a numeric scale relating to the balance of positive and negative language within a statement or text (Anstead and O'Loughlin, 2014). Employing

computer-based language processing techniques that have been developed over the last 20 years, the sentiment of a given text can be expressed as a numeric indicator using 0 as a neutral marker. Early sentiment analyses simply scanned for and counted words contained within a dictionary and calculated the number of these words that were either positive or negative in sentiment. These techniques have since been abandoned due to their inability to detect and account for context and linguistic modifiers (Anstead and O'Loughlin, 2014). More recently developed methods for measuring sentiment employ natural language processing, where a computer essentially "reads" a given text and attributes a sentiment value to it (Kao and Poteet, 2007). Using this approach, sentiment is calculated by examining the entirety of the text's meaning, rendering it easier to measure the context of any given statement (Anstead and O'Loughlin, 2014). Coupled with iterative human corrections and software updates to amend the sentiment scores generated from specific portions of text, the accuracy and reliability of sentiment analysis packages increases over time (Anstead and O'Loughlin, 2014).

Sentiment analysis does not look for qualitative differences between different types of speech or text, and instead provides a replicable and non-normative means to compare and measure all communications. Coupled with its ability to detect subtle difference in the sentiment between communications that may be difficult for subjective measures to articulate (Cui, Mittal, and Datar, 2006), sentiment analysis can systematically differentiate between positive, negative, and more neutral messages. Recent packages allow users to set a subject as neutral in order to gauge variation in sentiment around this topic (Fisher and Dugan, 2017). The sentiment scores of the quotes presented thus far demonstrate the software's ability to detect subtle differences within

the generally negative subject area of terrorism. President Jimmy Carter's message of resilience yielded a positive sentiment score (0.469) even though it mentioned "military invasions" and "terrorism."[11] Conversely, President George W. Bush's call to arms following acts of terrorism[12] has a negative sentiment, with a score of -0.622.[13]

Similarly, President Gerald Ford's commitment to deterring terrorism also presents a negative sentiment, -0.655.[14] Despite the inclusion of the typically positive phrase "pleased to affix my signature," current sentiment analysis packages such as that used for this dissertation are able to detect that this phrase is an affirmation of negative sentiment. Using early sentiment analysis tools, this phrase would have a neutralizing effect on the excerpt's sentiment score. However contemporary packages are able to correctly observe that this passage is actually slightly more negative in sentiment than Bush II's statement. Consequently, while one may seek to qualitatively distinguish between Ford's and Bush II's messages, using modern sentiment analysis, these different communications fall near one another on the sentiment scale.

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[11] "The democratic nations are magnets for young students from all over the world. The democratic world is a center of intellectual and technological invention. It's a great focus of cultural creativity. It's undergoing a major resurgence of religious belief, and our political institutions establish and exhibit a resilience unmatched by any society in the totalitarian world… We have no reason to fear change, new ideas, or new problems. We do not rely on military invasions by so-called friendly neighbors, much less on terrorism, to sustain the idea of liberty. It stands on its own merit" (Carter, 1980a).

[12] "These terrorists will not be stopped by negotiations or by appeals to reason or by the least hint of conscience. We have only one option: we must and we will continue to take the fight to the enemy" (Bush II, 2003: 2).

[13] These sentiment scores were calculated with the open access Sentiment Analysis Online Beta software available at sentimentanalysisonline.com. This sentiment analysis package is described in more detail in Chapter 5, and is the analysis package for all primary analyses.

[14] "These acts cannot and will not be tolerated in the United States, nor should they be tolerated anywhere in the world. Preventing or punishing such acts is a prime concern of this Government and one which I will pursue with all the force of this office. Today, I am pleased to affix my signature to three documents which once again demonstrate the commitment of the United States to sustain its struggle against international terrorism" (Ford, 1976a: 1).

This systematic approach for quantifying tone and value features the ability to differentiate positive and negative sentiment independently of the text's *purpose*. The previous examples of presidential communications demonstrate that sentiment analysis software can identify cases where the expressed sentiment is in line with theoretical predictions (on diagonal cases where expression of deterrence were negative in sentiment and asserting resilience yielded positive sentiment scores). However, there is important variation in sentiment that would be missed if communications were coded purely as to their purpose, due to the natural variation in communications and the nuanced political environment surrounding terrorism (Sarfo and Krampa, 2013). For example, deterrence-based communications with the purpose of highlighting the United States' general counterterrorism capabilities may have either negative[15] or positive sentiment.[16] While both speeches emphasize that the US will work with other nations to reduce the rewards for engaging in terrorism, President Clinton uses combative language such as "thwart" and "fight," whereas President Reagan highlights the consistency and solidarity in counterterrorism in his deterrence message.

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[15] "I especially want to thank all involved in this important process. This arrest is a major step forward in the fight against terrorism. Terrorism will not pay. Terrorists will pay. We will continue to work with other nations to thwart those who would kill innocent citizens to further their own political aims" (Clinton, 1995, sentiment score -0.092).

[16] "America will continue to deploy military forces throughout the free world as proof of solidarity with our Allies and other friendly nations, and as a deterrent to those who might threaten our peace and freedom. Forward deployments not only underscore our national policies, but also provide valuable exercises and training for Active, Guard, and Reserve Component Forces" (Reagan, 1987, sentiment score 0.559).

Similarly, the sentiment analysis package employed by this dissertation is able to differentiate between positive[17] and negative[18] initial reactions to terrorist events. These two cases, in which both President Bill Clinton and President George W. Bush condemn terrorism, are contextually similar. While overall each speech has a fairly neutral sentiment, Clinton highlighted that recovery efforts diminished the attack's impacts whereas Bush II projected that recovery efforts would enable the ongoing fight against terrorism. Consequently, while the purpose and themes are similar between these speeches, this key divergence in framing drives the distinction in overall sentiment. These examples demonstrate that sentiment is not entirely determined by the context or purpose of the text. Rather it can detect off-diagonal cases where specific recovery and resilience messages may have a negative tone (Bush II, 2002), and messages of deterrence may have a positive sentiment (Reagan, 1987).

Furthermore, sentiment software that accounts for subject matter can also reveal important insights regarding the implicit or explicit strategies employed in these communications. Presidents and their press secretaries have time to prepare their remarks, aim to exhibit a unified "executive image," and will be held accountable if they

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[17] "The attack on American diplomatic personnel in Pakistan today outrages all Americans. I have instructed relevant U.S. Government agencies to work with the Government of Pakistan to apprehend the perpetrators of this cowardly act. I want to thank the Government of Pakistan for the excellent cooperation it has already provided. Our hearts go out to the families of Gary Durell, a communicator, and Jacqueline van Landingham, a consulate secretary, who were killed. We pray for the speedy recovery of Mark McCloy, a consulate spouse, who was wounded. Attacks such as these should make the international community rededicate itself to efforts to stamp out terrorism everywhere" (Clinton, 1995, sentiment score 0.009).
[18] "The United States condemns the terrorist attack carried out by militants in Jammu and Kashmir yesterday. On behalf of the American people, I extend my condolences to the families of the victims and the people of Jammu and Kashmir, whose citizens were killed in this attack. Yesterday's attack was also aimed at destroying opportunities for South Asia to build a future that is more stable, more peaceful, and more prosperous. We will not allow terrorists to succeed in this larger mission. The United States will not yield in its determination to work with the people of South Asia to fight terrorism and to build a better future" (Bush II, 2002, sentiment score -0.023).

deviate too widely from the expectations of their offices (Schaefer, 1997: 97). In line with this controlled image that US presidents have presented, one would expect to see relatively few presidential communications with extreme sentiment scores even on a topic as emotive as terrorism. This control and consistency of presidential messages can be evidenced in Figure 3.1 below, which presents the distribution for individual communications regarding terrorism between 1970 and 2014. As one would expect, the average sentiment for individual communications was negative ($\bar{x}$=-0.047, SD=0.222). The sentiment analysis package employed by this dissertation also supports Schaefer's (2011) observation of control, with 80% of all presidential communications regarding terrorism having a sentiment score between -0.245 and 0.187. Taken together, these observations suggest that sentiment analysis software can detect important differences between communications, and that these sentiment scores align with the qualitative literature on presidential rhetoric.
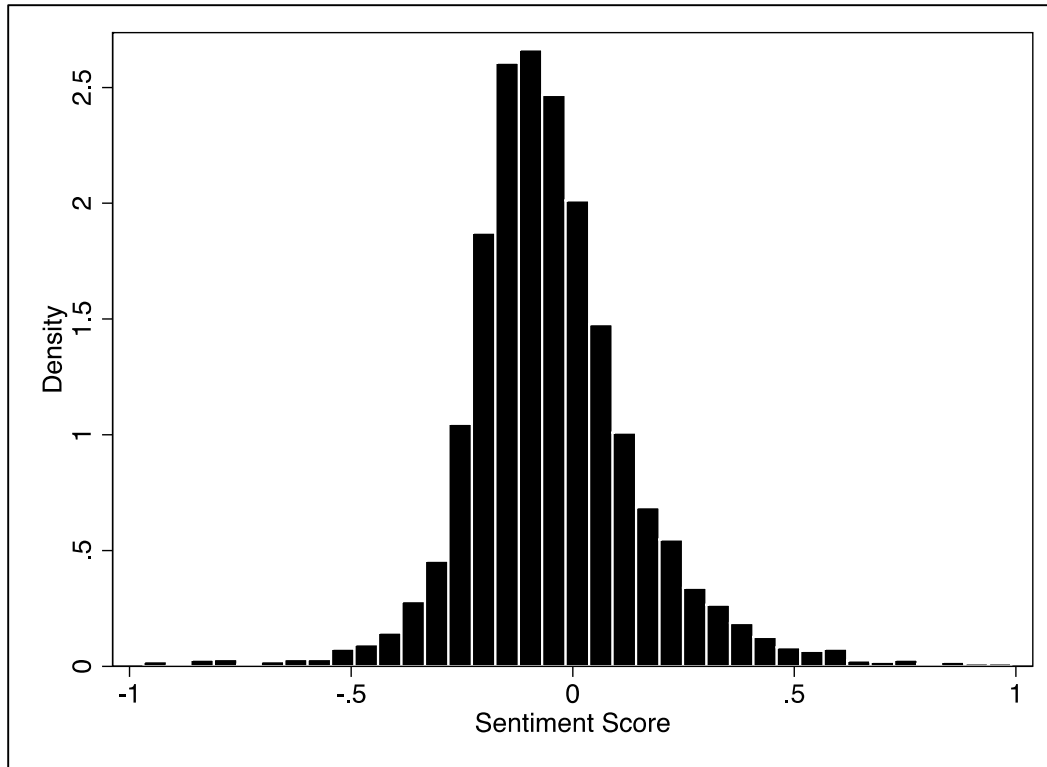
Figure 3.1: The distribution of sentiment scores for presidential communications regarding terrorism 1970-2014

Figure 3.1 also displays that there are cases when presidents have projected sentiment that was very positive and very negative in nature with regard to terrorism. Indeed, many of the examples discussed in this chapter fall within the highest and lowest deciles of presidential communications.[19] If these communications are as unique, as this distribution suggests, then one would expect to see qualitative differences between the most negative and most positive deciles of presidential communications with respect to the most commonly used words that convey sentiment within their texts. When the contents of the 1200 presidential communications representing the lowest and highest deciles of sentiment scores were examined using NVIVO,[20] it was evident that the

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[19] The sentiment score for the lowest decile was -0.245 and the sentiment score for the highest decile was 0.187.

[20] For this discussion, the 100 most used words within each set of 600 communications were identified using NVIVO. In order to focus on words containing sentiment, words were excluded that were procedural

contents and prominence of the most commonly used words varied (see Figure 3.2

below). Beginning with the 100 most frequently used words in the 600 most negative

sentiment communications, assertive words such as "know," "now," "take," and "get"

were used prominently. The relatively large font size of these words also indicates that

these words were used quite extensively in comparison to other words. In comparison,

the 100 most frequently used words within the 600 most positive communications

comprised more inclusive words such as "cooperation," "support," "commitment," and

"help." The comparatively smaller font for the most frequently used words also indicates

that among these words there was more variation.

Figure 3.2: The 100 most frequently used words conveying sentiment from the 10% least positive and the 10% most positive communications

Thirty-seven words appear on both lists, including "progress," "process," and

"peace." Despite appearing in the 100 most frequently used words in both subsets, the

frequency of use demonstrates another key difference between these communications.[21]

"Progress" was the 100th most frequently used word in the lowest decile for sentiment

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or did not convey sentiment. These excluded words included office titles such as "president" and "prime" "minister," common words such as "that" and "one," and country names including "Afghanistan" and "Iraq."

[21] A table containing the frequencies of the 100 words that were used most often in the upper and lower deciles can be found in Appendix A on page xxx.

score, but was the 46th most frequently used in the highest decile. Conversely, "process" was the 22nd most used word for the most negative communications but was ranked 76th within the positive communications. Taken together, this provides some evidence that "process" was emphasized more in negative communications, and "progress" was more central when conveying positive overall sentiment. Similarly, "peace" was the 36th most frequently used word for the most negative decile of communications, but was 7th within the most positive communications. Although this analysis is limited without the context and potentially divergent meaning of some words, this variation is further evidence that sentiment analysis is able to detect meaningful and potentially policy-relevant variation in presidential communications.

Beyond these measurement advantages, sentiment plays a pivotal role in influencing others' decision making by either affirming behavior or pushing people in another direction (Dubey, Rana, and Ranjan, 2016). Stock traders, for example, are positively influenced by the either bullish or bearish public sentiments expressed by other traders (Kurov, 2008). Similarly, expressions of national sentiment have also been positively connected to the pricing patterns for gambling on European football (soccer), whereby bookmakers overrate the winning chances of their national team and bettors refrain from wagering against their own team even under favorable odds (Braun and Kvasnicka, 2013). In both of these economic examples, individual behavior is influenced by the sentiment of previous messages. Even when the sentiment is irrelevant to the outcome, as is the case in expressions of national pride on the performance of a soccer team, people are more likely to base their future economic behavior in line with the previous sentiment to which they were exposed.

Within political events however, this relationship is less clear. The expression of political sentiment has been found to be irrelevant (DiGrazia, McKelvey, Bollen, and Rojas, 2013), positively related (Sanders & den Bosch, 2013; Sang and Bos , 2012), or negatively related to voting behavior (Jugherr, Jürgens, and Schoen, 2012). Consequently, while many have touted that sentiment analysis provides an opportunity to more accurately predict political events including the outcome of elections (see Ceron, Curini, Iacus, and Porro, 2014), it is at present unclear how individual political decisions are shaped by the sentiment of communications. One longstanding explanation for this is that those who consume more information, and are thus exposed to more sentiment, tend to be more extreme in their political views and also more likely to act upon these views (Palfrey and Poole, 1987). One reason for this may be that individuals who have extreme views are more invested and reactive to individual messages, making them more likely to respond either in line with or against the sentiment to which they are exposed (Palfrey and Poole, 1987). Thus, while those who have more moderate views have little incentive to gather and process additional information to inform their actions (Palfrey and Poole, 1987), those who hold more extreme political positions, such as potential terrorists, are more likely to adjust their future actions in line with these political sentiments. Concordantly, as exposure to sentiment has the ability to polarize or balance the peoples' views and actions (Bray and Noble, 1978; Trier and Hillmann, 2017), the sentiment of presidential public communications may be able to shift the attitudes and behavior of potential terrorists either toward or away from violence.

Drawing upon this literature, evidence suggests that political actors such as terrorists and their constituencies may be polarized or moderated by the sentiment of

presidential messages. In line with the theoretical discussion informed by deterrence and rational choice theories, evidence also suggests that both positive and negative sentiment public communications may lead to either increases or decreases in terrorism. Focusing firstly on communications that are negative in sentiment, *deterrence* theories would predict that the impetus for terrorist violence may be reduced (moderated toward 0). Drawing upon rational choice predictions however, it is also plausible that communications that have a negative sentiment may also elicit a violent *backlash* from terrorist groups, as their views are polarized (perceived incentive for violence moves away from 0) by these communications. Also in line with rational choice theories, public communications that are positive in sentiment could either *placate* the motivation for terrorism and lead to reductions in terrorist violence, or be interpreted as a *display of weakness* and be capitalized on by these groups through increased terrorism.

Chapter 4: The US Context and Terrorism

The US plays a pivotal role in framing issues of international security (Bartolucci, 2012), and represents an ideal nation to examine the impact of head-of-state speech on terrorism (see Schudson, 2003; Edwards, 2003). US presidential discourse in particular has been instrumental in defining what terrorism is and who perpetrates it (Bartolucci, 2012; Wolf, 2003), and the US perspective on counterterrorism has influenced many nations around the world (Erjavec and Volčič, 2006). Most notably observed through the profound international impacts from the September 11, 2001 terrorist attacks, Bartolucci (2014:1) has argued that the US presidential framing of these events was "uncritically accepted and widely reproduced," becoming one of the principal security discourses globally. As they regularly employ hyperbole, repetitions, and "us" versus "other" representations, Bartolucci (2012:562) also claims that these public communications "condition the contemporary life of individuals and groups all around the world."

If public communications do affect terrorism, this dissertation argues that the US would be the most likely place to observe an impact. However, if null findings are observed in the US context, Bartolucci's (2010; 2012; 2014) assertions regarding US influence may be limited to merely influencing how terrorism is framed politically on the international stage, rather than affecting the incidence of terrorism. The subsequent analysis thus yields important insights into the strategic implementation of public communication as a counterterrorism approach. During the 45 years examined by this dissertation, the world experienced dramatic changes with respect to communication technology and to the political contexts surrounding terrorism. This chapter outlines some of the key contextual factors that shaped public communications concerning

counterterrorism for each US president since 1970. These contextual factors then serve to inform the third and fourth hypotheses that this dissertation tests.

The Importance of Context

The impact and interpretations of communications depend partially upon the source of that speech, and likely vary across political contexts (Zarefsky, 2004; Stepanova, 2011). Communications from presidents are central for rallying groups of people to assist in achieving policy objectives (Kernell, 2007), and the emotion and sentiment that a president conveys is central for the effects of presidential speech on public opinions (Buchanon, 2010). Presidents have a variety of channels through which they can communicate publicly. They can communicate indirectly through their press secretaries (McMillan and Ragan, 1983; Towle, 1997; Spragens and Terwoord, 1980), written statements, policy documents, and directly through speeches and public addresses (Kernell, 2007). Many of these channels are reserved for the president alone and hold great political and social importance. For example, the US Constitution requires the president to deliver information to Congress regarding the State of the Union. These annual addresses reach a mass audience through dedicated television and media coverage, and have also been observed to influence the president's "opponents" (Tedlin, Rottinghaus, and Rodgers, 2011: 506). Due to the president's unique power to increase attention to specific policy concerns (Cohen, 1995), communications delivered by US presidents and their press secretaries should carry more weight than other political players and stakeholders with less relative power.

This dissertation also examines whether the impact of public communications on terrorism is a function of a president's particular political administration (hypothesis 3).

Each of the eight presidencies examined by this dissertation faced different terrorist threats and political counter-movements. In light of these varying influences and threats, government actions may have had a variable impact of counterterrorism actions across political periods (Dugan and Chenoweth, 2012). As the political and social context in which a message is received is central to the interpretation and meaning ascribed to that message (Zarefsky, 2004), this chapter briefly documents the changing political and terrorist landscape between 1970 and 2014.

Political and idiosyncratic differences between presidents may also condition violent and non-violent responses to presidential public communications. Since 1868, all US presidents have been official representatives of one of only two political parties – the Republican Party and Democratic Party. Each has its own unique policy platform,[22] with the scope of the welfare state and national security being major issues that have determined support for presidential candidates in the recent past (Abramowitz, 2002). Given that political leanings and levels of ethnocentrism have strongly predicted civilian views on terrorism and responses to terrorism (Kam and Kinder, 2007), the presidents' political identities alone may influence how their public communications are received. Beyond this, presidents' individual political stances, and variation in the ideology, goals, and methods employed by terrorists during their tenure, may also drive important differences across presidencies. To explicate this variation in context, this chapter briefly outlines the approach to terrorism employed by each of the eight presidents who this dissertation will examine. It then presents the monthly frequency of terrorism and civil

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[22] See https://prod-cdn-static.gop.com/static/home/data/platform.pdf for the most recent Republican platform and http://www.presidency.ucsb.edu/papers_pdf/117717.pdf for the most recent Democratic Party platform.

unrest that confronted each president, and provides a brief description of the words used

by each president and their press secretaries when discussing terrorism.

Richard Nixon (January 20, 1969 – August 9, 1974)

Terrorism in the US has roots that extend well before the observation period of

this dissertation, and each presidency faced its own unique political tension and terrorist

threats. Contemporary counterterrorism strategies began under the Nixon administration

(Sloan, 1993; Williamson, 2011), and had a formative impact on how future US

governments and the world would define, understand, and respond to terrorism. Prior to

Nixon, groups that are now designated as domestic terrorist organizations, such as the Ku

Klux Klan, were often either ignored or treated as purely criminal organizations (Sloan,

1993). Even following increases in Puerto Rican terrorism, culminating with the

attempted assassination of President Truman in 1950, terrorism was dismissed as not

rising to the level of a major threat requiring any systematic policy responses (Sloan,

1993).

Continuing into Nixon's administration, the term terrorism was used loosely,

often as a synonym for various forms of domestic and international hijacking, air piracy,

and guerilla warfare (Naftali, 2005). Practically, terrorism was thus poorly defined and

understood, which permitted the Nixon administration to craft its responses to terrorist

situations unencumbered by established political positions. Williamson (2011: 45)

contends that for the majority of Nixon's tenure, "terrorism [w]as a second class issue to

which the US could respond flexibly when it aligned with the country's broader foreign

policy interests." Instead of focusing on terrorism, the administration primarily paid

attention to the Vietnam War, a wide variety of domestic social issues, restoring

diplomatic relations with China, and pursuing a détente with the Soviet Union

(Williamson, 2011). However, following the 1972 Munich Olympic terrorist attack by

Black September, the mounting pressure and proximity of airline hijackings, and the

political latitude that these events created, the Nixon administration introduced the US

policy of "no concessions" for any demands from terrorist groups on March 2nd 1973:

> *On March 1, 1973, Ambassador Cleo A. Noel, Jr., Deputy Chief of Mission George Curtis Moore, and Belgian Charge d'Affaires Guy Eld were seized at a reception at the Saudi Arabian Embassy in Khartoum, by members of the Arab terrorist organization, Black September. As you know, we had a problem in Latin America last year; we have one here this year. I don't mean to suggest it is that hazardous everyplace, but it is a problem and it is a risk that an ambassador has to take. **As far as the United States as a government giving in to blackmail demands, we cannot do so and we will not do so.** Now, as to what can be done to get these people released, Mr. Macomber is on his way there for discussions. The Sudanese Government is working on the problem. We will do everything that we can to get them released, but we will not pay blackmail* (Nixon, 1973, emphasis added).

Beyond this unscripted statement that indelibly changed official US policy

concerning terrorism, Nixon also established the Cabinet Committee to Combat

Terrorism (CCCT) in 1972 to "gather intelligence on terrorist organizations and plots, as

well as to consider the most effective means by which to prevent terrorism domestically

and internationally" (Barber, 2016: 2). Along with creating the corps of US Air

Marshalls, Nixon's ad hoc approach to counterterrorism established enduring agencies

that would be charged with combating terrorism well after his resignation on August 9th,

1974 (Williamson, 2011). Calling for the international community to develop solutions to

terrorism in a speech before the UN General Assembly as early as 1970, Nixon used

public communications to unify other nations against common terrorist threats and to

formally initiate global anti-terrorism campaigns (Williamson, 2011).

In addition to terrorism, these US presidents also faced dissent and counter-movements. Events of civil unrest can provide additional hostility and have the potential to radicalize and influence existing terrorist organizations. Following the previous assertion that terrorist organizations may be more likely to respond with violence to presidents with lower than average approval ratings, this dissertation also contends that the societal discontent displayed by civil unrest may also mediate the relationship between presidential communications and terrorism. The Nixon administration was confronted by 580 incidents of civil unrest from 1970 to Nixon's impeachment in 1974.[23] The monthly frequency of terrorism and these civil unrest events[24] can be seen below in Figure 4.1. Many of these civil unrest events attracted international attention, and were among the most conspicuous incidents that Nixon faced. For example, Kent State University was the setting for one of many civil unrest events in the form of students protesting the Vietnam War. It drew international attention after the Ohio National Guard opened fire at the students, killing four and wounding nine of them (see Hall and Hewitt,

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[23] These data were sourced from the Social, Political, and Economic Event Database (SPEED) (Nardulli and Hayes, 2011). As will be discussed in greater detail in Chapter 5, events of civil unrest were defined in this database as: "happenings that unsettle the routines and expectations of citizens, cause them to be fearful, and raise their anxiety about the future" (Nardulli and Hayes, 2011:1). The SPEED database also collects actions by governments and political attacks. As these events were either committed by the government or were considered terrorist actions and also recorded by the GTD (see Nardulli and Hayes, 2011 for a discussion of the overlap with the GTD), civil unrest events for the purposes of this dissertation were restricted to "political expression" events which were defined as "Political expression events are the public articulation, by non-governmental actors, of threatening or unwelcome political messages" (Nardulli and Hayes, 2010:2).

[24] Drawing upon the observations of Naftali (2005) Williamson (2011) the political definition of terrorism varied immensely within the Nixon administration and all other presidencies. In order to provide systematic data that are comparable across presidencies, terrorism data for Figure 4.1 and all subsequent analyses were gathered from the Global Terrorism Database (GTD). As will be discussed in greater detail in Chapter 5, acts of terrorism were defined in this database as: "intentional act of violence or threat of violence by a non-state actor" where two of the following three criteria were also met; "the violent act was aimed at attaining a political, economic, religious, or social goal; the violent act included evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) other than the immediate victims; and the violent act was outside the precepts of International Humanitarian Law" (START, 2016: 9).

1970). These civil unrest events demonstrated the value of communication in American society, but Hall and Hewitt (1970: 26) claim they may also have "embittered" and escalated violence in the protest movement. The potential interconnections between civil unrest and terrorism targeting the US domestically and internationally can be observed in Figure 4.1, with both following similar patterns over the course of Nixon's presidency ($r=0.679$). Rate of incidence for both terrorism and civil unrest saw sharp increases in early 1970, followed by a decrease from 1971 forward. The average monthly frequency was lower for civil unrest ($\bar{x}= 10.55$, SD= 9.65) compared to terrorism ($\bar{x}=21.27$, SD=17.27) during this period ($t=4.02$, $p<0.001$).
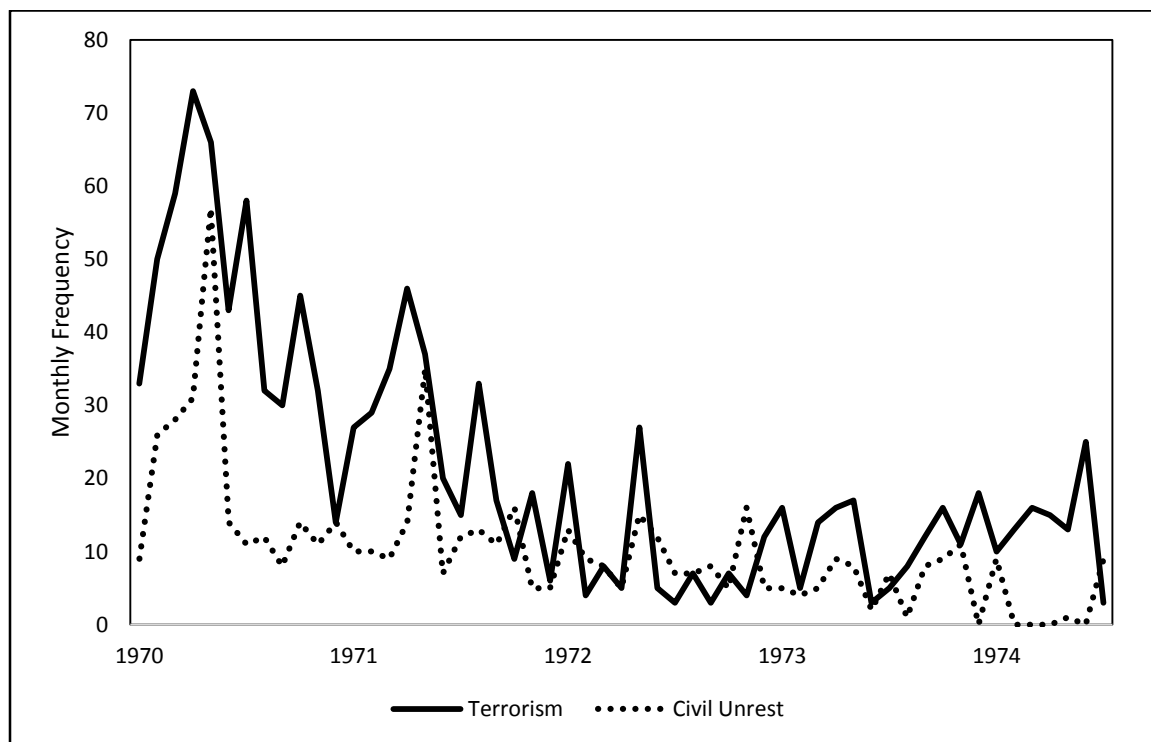
Figure 4.1: Monthly frequency of terrorism targeting US interests and civil unrest under the Nixon administration

The Social, Political, and Economic Event Database (SPEED) also codes civil unrest events based upon the "root" motivating factor behind each one (Nardulli and

Hayes, 2011: 9).[25] In order to provide comparable figures across presidencies,[26] data were

collected for the number of civil unrest events per month for each president, within the

seven categories that are recorded by SPEED.

Table 4.1: The definitions for the seven types of civil unrest from the SPEED data presented below

Type of Unrest	Definition
Public Order	Imminent Threat to Public Order - Destabilizing acts, often the result of other the manifestation of popular discontent by others
Retribution	The desire to seek revenge for the actions perpetrated by other individuals, groups, or organizations is one of the oldest sources of discontent
Class Conflict	This subcategory captures a number of factors related to the quality of work environments that can give rise to discontent. These work environments deeply affect individual outlooks and overall satisfaction with life and they can be an important source of economic and class-based discontents. This subset includes such things as the availability of jobs, pay levels, and working conditions – all of which can generate public protests and sometimes give rise to violent attacks. So too can the treatment of other workers and general concerns over labor rights.[27]
Political Desires	While concerns with political liberties and freedom have long been of concern to individuals, the increasing reach of the modern state has made them an important driver of civil unrest, including civil wars. The pretest suggested that three categories of political rights are especially prominent: equality, freedom of expression (especially the treatment of dissidents), and the right to self-determination (independence from a colonial ruler, independence from an existing state, demands for greater autonomy, etc.).
Retain Political Powers	While ideological concerns and the desire for specific political rights and liberties are important sources of civil unrest, in many instances it is simply the desire for political power – including the control and the spoils that it can bring. These desires manifest themselves in three ways: acts aimed at maintaining, enhancing or securing political power.

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[25] Within the SPEED data, an event is considered to be "rooted" in something if it is clear that a specific issue or grievance is the origin or motivating factor for the event (Nardulli and Hayes, 2011: 3). The full narrative definitions for each of these seven categories can be found at: http://www.clinecenter.illinois.edu/publications/SPEED-An_Overview_of_the_SSP.pdf.

[26] The SPEED database only contains events until the end of 2005. Consequently, these comparisons were unable to be completed for the remainder of the Bush II administration or the Obama administration.

[27] According to Nardulli and Hayes (2011) examples of civil unrest incidents rooted in class conflict include: labor strikes protesting wages or working conditions and anti-globalization rallies.

Ecological Resource Scarcity	Discontent rooted in such resource scarcities. Moreover it is concerned with resource scarcities derived from ecological factors and/or population pressures – as opposed to scarcities derived from economic inequalities or government policies, which would be more properly categorized as economic or governance matters.
Personal Security	Safety is also a core human desire; threats to personal safety that generate popular discontent can come from crime sprees, widespread civil unrest, organized terrorism and/or international threats.[28]

Figure 4.2 below displays these data for Nixon. Under the Nixon administration, class conflict was identified as the most prominent root reason behind incidents of civil unrest, with an average of more than 3 incidents per month (f=166). Not all civil unrest was motivated by attempts to reduce power disparities within US society. These data also captured civil unrest events that attempted to retain existing political power (f=44), which was third most common during this period. In comparison, there were relatively few incidents of civil unrest events with roots in personal security (f=2) and public order (f=9).

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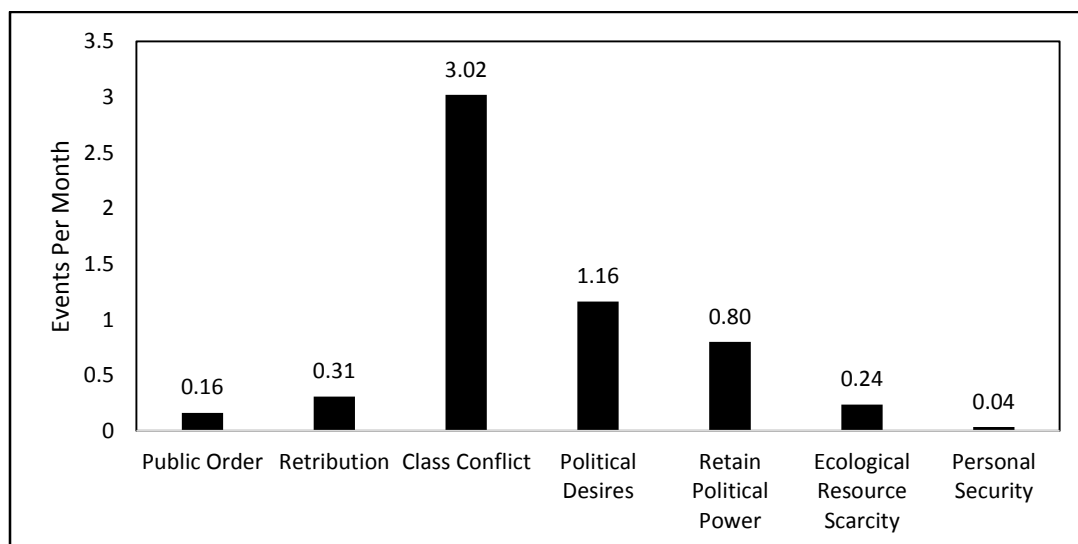
[28] According to Nardulli and Hayes (2011) examples of civil unrest incidents rooted in personal security include: protests of political and criminal enterprises, night vigils to reclaim public spaces, and public demonstrations against government use of force.

Figure 4.2: The average number of civil unrest events per month by motivation under the Nixon administration

The early 1970s were also marked by a high number of terrorist attacks that targeted US interests both domestically and abroad. Drawing upon data from the Global Terrorism Database (GTD), Table 4.2 below displays the top 20 groups identified as the perpetrator of the 1,170 attacks that targeted the US under Nixon's tenure. A number of these attacks were coded as being committed by an unknown perpetrator (f=142 for domestic attacks, f=125 for international attacks).[29] Similar to the civil unrest data and the qualitative accounts above, the groups represented in this table suggest once again that class conflict was a major motivator for domestic terrorist violence. Left-wing militants were the most frequently identified terrorist grouping, followed by black nationalists, then student radicals. Again demonstrating the less frequent counter-movement that occurred in the US, white extremists were identified as the perpetrator in 39 terrorist attacks, with specific groups such as the Ku Klux Klan being attributed to seven attacks. The most frequent terrorist organizations targeting the US internationally were the Turkish People's Liberation Army, *Ejercito Revolucionaria del Pueblo* from Argentina, and *Tupamaros* from Uruguay. Only Black September was identified in the top 20 terrorist organizations both domestically and internationally, committing six attacks in the US and nine overseas. This lack of overlap domestically and abroad suggests that the US encountered different terrorist threats on US soil compared to the rest of the world under the Nixon administration.

Table 4.2: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Nixon administration

Rank	Domestic	Attacks	International	Attacks

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[29] The perpetrator for terrorist attacks in the GTD is coded as unknown if "no information about the perpetrator group is available" (START, 2016: 41).

1	Left-Wing Militants	169	*Unknown*	125
2	*Unknown*	142	Turkish People's Liberation Army	25
3	Black Nationalists	82	Ejercito Revolucionaria del Pueblo	19
4	Student Radicals	71	Tupamaros	14
5	Weather Underground, Weathermen	39	Popular Front for the Liberation of Palestine	11
6	White Extremists	39	Black September	9
7	Black Liberation Army	34	Baader-Meinhof Group	7
8	Armed Revolutionary Independence Movement	30	Eritrean Liberation Front	5
9	Jewish Defense League (JDL)	29	Comite Argentino de Lucha Anti- Imperial	4
10	Chicano Liberation Front	28	Extraparliamentary Opposition (APO)	4
11	Black Panthers	24	Mujahedin-e Khalq (MEK)	4
12	Strikers	23	Palestinians	4
13	Zebra killers	20	New People's Army (NPA)	3
14	Armed Commandos of Liberation	13	Peronist Armed Forces (FAP)	3
15	Chicano Radicals	10	Revolutionary Communist League (LCR)	3
16	Puerto Rican Nationalists	10	Armed Proletarian Nuclei (NAP)	2
17	Secret Cuban Government	8	Irish Republican Army (IRA)	2
18	Ku Klux Klan	7	Jewish Defense League (JDL)	2
19	Black September	6	Lebanese Socialist Revolutionary Organization	2
20	Individual	6	Montoneros (Argentina)	2

Both terrorism and civil unrest featured prominently within presidential terrorism communications, and the 100 most used words under the Nixon administration are displayed below in Figure 4.3. Despite there being more domestic (f=887) than international attacks against the US (f=283), greater attention was paid to international threats in these communications. This is evidenced by the prominence of the words "international," "Vietnam," "Soviet," "countries," "foreign," and "Asia" in Figure 4.3. This is in line with Williamson's (2011) observation that Nixon and his press secretaries paid substantial attention to the Vietnam War and pursuing a détente with the Soviet Union, and demonstrates that the contents of presidential communications regarding terrorism is not purely a function of terrorist attacks targeting US interests. Also echoing

Hall and Hewitt's (1970: 18) observation that Nixon deflected issues of civil unrest to instead focus on "communication breakdown" and policy, the words "agreement," "programs," "policy," "development," and "support" were all among his most commonly used words in terrorism communications. The absence of the word "terrorism" from the 100 most used words also lends support to the qualitative account above that "terrorism [w]as a second class issue" for Nixon (Williamson, 2011: 45). Indeed, Nixon and his press secretaries only used the word terrorism 57 times between January 1970 and his impeachment in 1974.

Figure 4.3: The 100 most used words used in presidential communications under the Nixon administration

Gerald Ford (August 9, 1974 – January 20, 1977)

> *The terrible increase in violence and terrorism throughout the world has sharpened our awareness of the need to assure rigorous protection for sensitive nuclear materials and equipment. Fortunately, the need to cope with this problem is now broadly recognized. Many nations have responded to the initiatives which I have taken in this area by materially*

strengthening their physical security and by cooperating in the development of international guidelines by the IAEA. As a result of consultations among the major suppliers, provision for adequate physical security is becoming a normal condition of supply (Ford, 1976a).

By the time Gerald Ford assumed the presidency in 1974, the CCCT had an established track record, producing detailed protocols on how the US would respond to future incidents of terrorism (Williamson, 2011). Ford placed a lower priority on terrorism as a policy issue compared to Nixon, leaving it to federal agencies such as the CCCT and the CIA to respond strategically to growing threats from nuclear terrorism and increased Palestinian terrorism (Naftali, 2005). In addition to the ongoing conflicts in Vietnam and the Middle East, Ford's administration also was deeply involved in fighting the Khmer Rouge, during which the US dropped more than 250,000 tons of bombs on Cambodia (Brinkley, 2007). Despite these military decisions, Ford publicly emphasized the importance of protecting human rights in matters of conflict (Brinkley, 2007). In a decision that would guide counterterrorism efforts for the next 20 years, under Executive Order 11,905, Ford forbade any person employed by or acting on behalf of the US government from engaging in, or conspiring to engage in, assassination (Abramowitz, 2002).[30]

Nevertheless, after pardoning Nixon, much of Ford's presidency was marred by poor public perceptions. While Nixon recounted that both the public and his colleagues perceived Nixon as aloof and calculating in his messaging (Nixon, 1978), Ford's public image "need[ed] to be more presidential… to improve his perception of being knowledgeable and competent" (Brinkley, 2007:135). Even after delivering "high-toned"

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[30] For a full description of other limitations that were imposed under this Executive order please see http://www.presidency.ucsb.edu/ws/index.php?pid=59348&st=assassination&st1=.

speeches aimed to brand Ford as a statesperson, the lingering jokes regarding Ford's intellect from sources as varied as former President Johnson, *Newsweek*, and *Saturday Night Live* hurt Ford's image and undermined much of his perceived authority (Brinkley, 2007).

Acts of civil unrest and terrorist attacks corresponded less during the Ford administration than they did under Nixon (r=0.2091), and can be seen below in Figure 4.4. Civil unrest followed a similar pattern to terrorism throughout Ford's administration its rate of incidence was lower. Across Ford's tenure, there were more terrorist events per month than civil unrest (t=8.913, p<0.001), with an average of 17.133 terrorist attacks (SD=6.862) and 4.767 civil unrest events (SD=3.266).
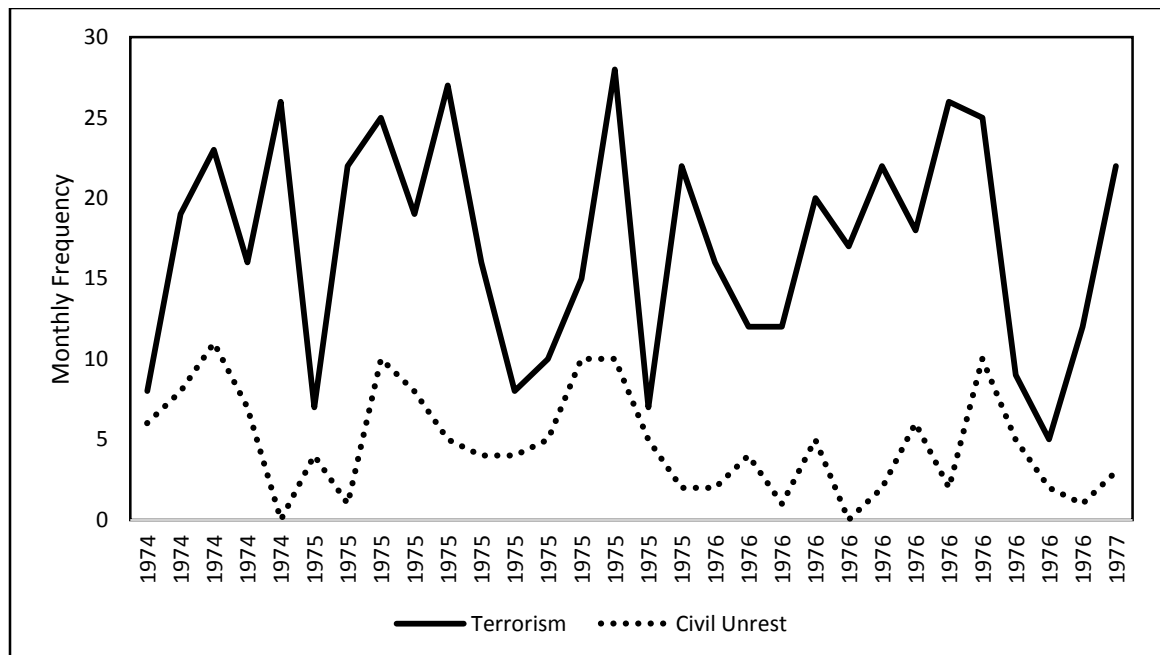
Figure 4.4: Monthly frequency of terrorism and civil unrest under the Ford administration

Class conflict was also the most common motivator for events of civil unrest, with 57 such events occurring across Ford's 30 months in office (see Figure 4.5 below). Similar to the Nixon administration, there were few incidents of civil unrest events with roots in personal security (f=1) and public order (f=1). Indeed the monthly occurrence of

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civil unrest under Ford was lower in comparison to Nixon generally (t=-3.533, p<0.001), however it should be noted that it was not possible to statistically distinguish the average monthly frequency of terrorism between these two administrations (t=-1.565, p=0.122).
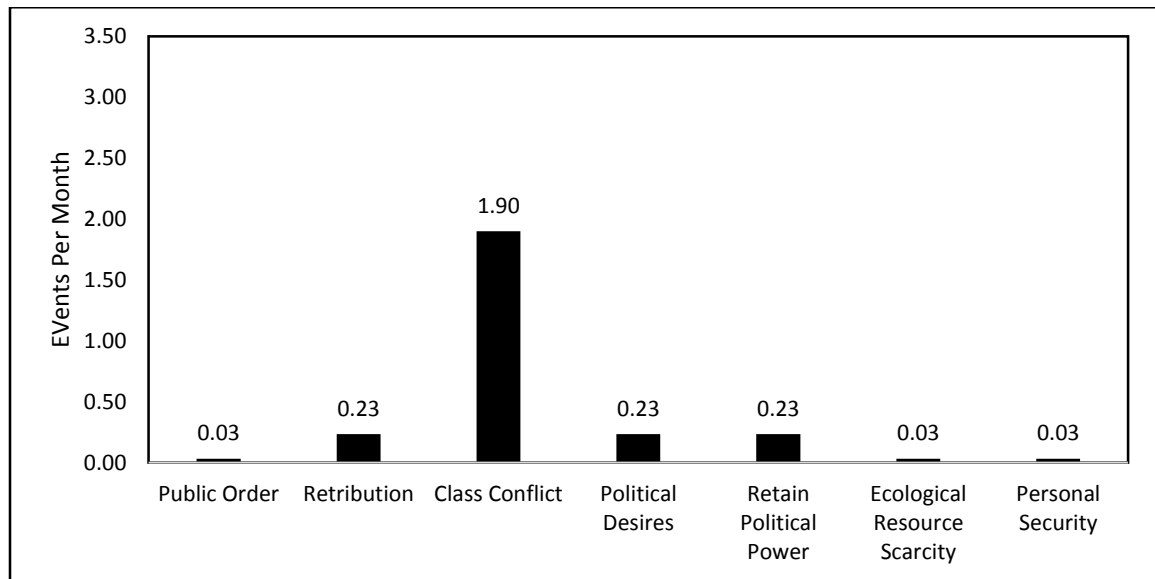
Figure 4.5: The average number of civil unrest events per month by motivation under the Ford administration

Like Nixon, under the Ford administration there was little overlap between the groups who were the most frequent perpetrators of terrorist violence domestically or internationally (see Table 4.3 below). Indeed, no group appeared on the top 20 list for both domestic and international attacks, once again suggesting meaningful differences in terrorism occurring in the US from that targeting the US abroad. Many terrorist threats also persisted into the Ford presidency. Organizations such as the Jewish Defense League and the Chicano Liberation Front were among the most prevalent domestic terrorist groups; and *Ejercito Revolucionaria del Pueblo*, the *Baader-Meinhof* Group, and the Turkish People's Liberation Army continued to be among the top seven organizations that attacked US interests internationally.

Table 4.3: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Ford administration

Rank	Domestic	Attacks	International	Attacks
1	Fuerzas Armadas de Liberacion Nacional	59	*Unknown*	65
2	New World Liberation Front (NWLF)	59	Montoneros (Argentina)	29
3	*Unknown*	43	Baader-Meinhof Group	17
4	Cuban Action	11	Turkish People's Liberation Army	10
5	Jewish Armed Resistance	10	Arab Communist Organization	8
6	Jewish Defense League (JDL)	10	Revolutionary Patriotic Anti-Fascist	6
7	National Front for the Liberation	10	Ejercito Revolucionaria del Pueblo	5
8	Cuban Exiles	8	Armed Proletarian Power	5
9	George Jackson Brigade	8	23rd of September Communist League	4
10	Independent Armed Revolutionary Commandos	8	Armed Proletarian Nuclei (NAP)	4
11	Individual	8	Mujahedin-e Khalq (MEK)	4
12	United Freedom Front (UFF)	6	Revolutionary Cells	4
13	Weather Underground, Weathermen	6	Eritrean Liberation Front	3
14	American Indian Movement	5	Anti-Zionist Commandos	3
15	Fred Hampton Unit of the People's For	5	Youth Action Group	3
16	Omega-7	5	Revolutionary People's Struggle (ELA)	2
17	Red Guerilla Family	5	Maruseido (Marxist Youth League)	2
18	Croatian Nationalists	4	Guerrilla Army of the Poor (EGP)	2
19	Chicano Liberation Front	3	Irish Republican Army (IRA)	2
20	Latin America Anti-Communist Army	3	Armed Communist Formations	2

The Ford administration used the word terrorism relatively more frequently than Nixon, with it falling among the 100 most frequently used words in terrorist communications (see Figure 4.6). However, due in part to his shorter tenure in office, Ford and his press secretaries had fewer public communications, and therefore used the word "terrorism" only 27 times. When converted to a monthly rate, Ford ($\bar{x}$=0.9) actually used the word "terrorism" slightly less than Nixon ($\bar{x}$=1.036). The most frequent words

that Ford and his press secretaries used were "intelligence," "foreign," and "nuclear," again suggesting a great focus on international issues. This again occurred despite a majority of terrorist attacks targeting the US occurring domestically (f=308) compared to internationally (f=206).

Figure 4.6: The 100 most used words used in presidential communications under the Ford administration

Jimmy Carter (January 20, 1977 – January 20, 1981)

> *All the nations expressed their commitment to us as rapidly as possible to encourage the Iranian Government to end the act of international terrorism which they have perpetrated against 53 innocent Americans, against our Nation, and against the rest of the world, indeed. This holding of innocent hostages is unacceptable. It violates every principle of international law and human decency. All the nations have committed themselves again to us that they would do everything in the world they could, through private, diplomatic channels and through their public statements and actions, to secure the rapid release of the American hostages* (Carter, 1980b)

In contrast to both Nixon and Ford, Berggren and Rae (2006:610) characterize Jimmy Carter's presidential style as "evangelical," and claim that he never had the

stomach for "politics as usual." His political legacy and effectiveness have been much debated, particularly given that "Carter received lower levels of support from members of the House than one would expect given the influence of party, ideology, and presidential popularity" (Fleisher and Bond, 1983:753). Rather than being a result of inter-party politics, Carter actually received higher-than-average policy support from Republicans, leading Fleisher and Bond (1983) to conclude that this lack of support stemmed from moderate and liberal Democrats. Carter's presidency has been celebrated for eschewing previous support for anti-Communist dictators in numerous conflicts, and denounced for supporting pro-Soviet leftists at the expense of traditional US allies (Soares, 2006). Despite his overall focus on protecting human rights (Carleton and Stohl, 1985), "it is commonly argued that the Carter Administration's foreign policies in general were confused, incoherent, lacking in strategy, and inconsistent" (Cottam, 1992: 123). Cottam (1992) further suggests that similar to Nixon, Carter attempted to balance national security with human-rights policy on a case-by-case basis, instead of through an overarching strategy.

Despite these criticisms, Carter's policies regarding terrorism, violence, and international conflict were similar to Nixon's and Ford's (Soares, 2006). Indeed, one of the more salient changes he made was to increase the size of the US military. In light of growing fears of Soviet domination, Carter's administration oversaw a great expansion of the US military budget and he notably threatened to use "any means necessary" to counter Soviet military moves into Afghanistan (Müller, 2005: 212). This has been contrasted with his other decisions to move away from the US domination of Central America, yielding criticisms that he was "soft on Communism" (Soares, 2006: 68).

Exacerbated by the media's preoccupation with the hostages taken by Iran in 1979, there was a frequent disconnect between Carter's hawkish actions concerning terrorism and other forms of violence and his more dove-like perceptions in the US public (Müller, 2005).

As seen in Figure 4.7 below, terrorism targeting the US decreased over the course of Carter's presidency ($\hat{\beta}$=-0.193, p=0.004) while civil unrest was relatively stable ($\hat{\beta}$=0.141, p=0.080). These trends are in line with Müller's (2005) previous observation that internal political turbulence was somewhat divorced from the US experience of international violence and political conflict. Notable peaks in terrorism occurred in March 1977, and in civil unrest in November 1979 and July 1980, further demonstrating the separation of these trends. Unlike during Nixon's and Ford's tenures, a negative correlation is evident between the monthly incidence of terrorism and civil unrest (r=-0.111). On average, the US experienced 12.532 incidents of terrorism and 15.894 civil unrest events per month (t=-1.659, p=0.102) during Carter's tenure. In comparison to the Ford administration, terrorism was lower under Carter (t=-2.930, p=0.005) and civil unrest was higher (t=3.345, p=0.001), further demonstrating this period's overall divergence of civil unrest and terrorism and its dissimilarities with the previous administrations.
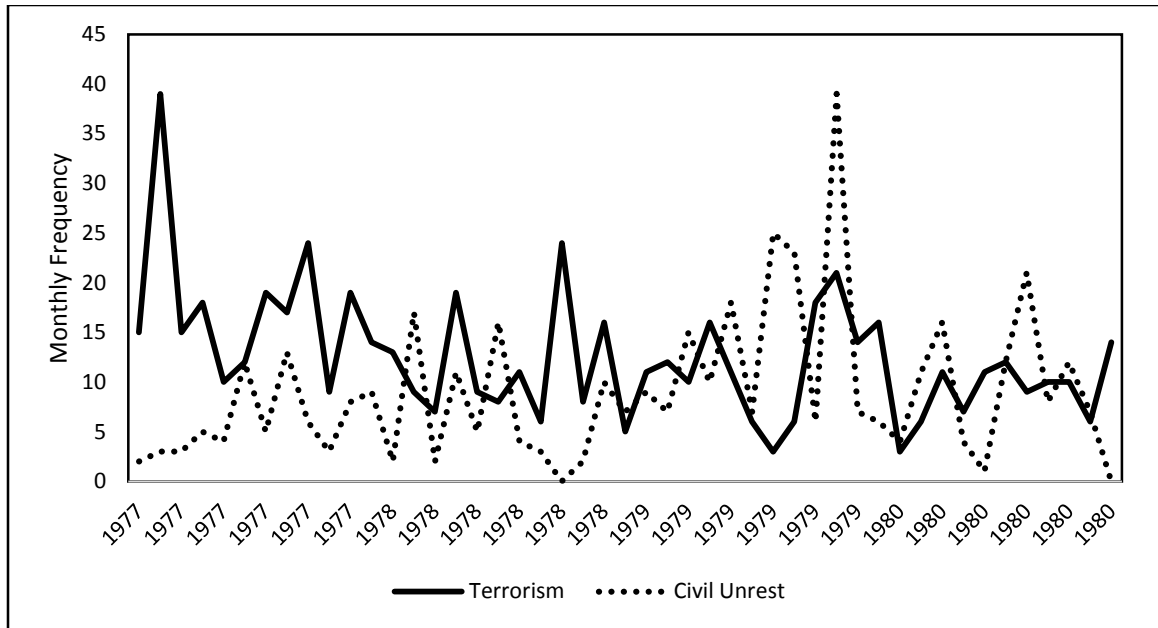
Figure 4.7: Monthly frequency of terrorism and civil unrest under the Carter administration

A total of 420 civil unrest incidents were recorded while Carter was in office. The distribution of the root motivations behind civil unrest was much more consistent with previous presidencies. As seen below in Figure 4.8, class conflict was once again the primary motivation for civil unrest (f=127), followed by political desire (f=40), and attempts to retain political power (f=27). In contrast, the SPEED data identified only eight or fewer civil unrest events motivated by each of the remaining categories.
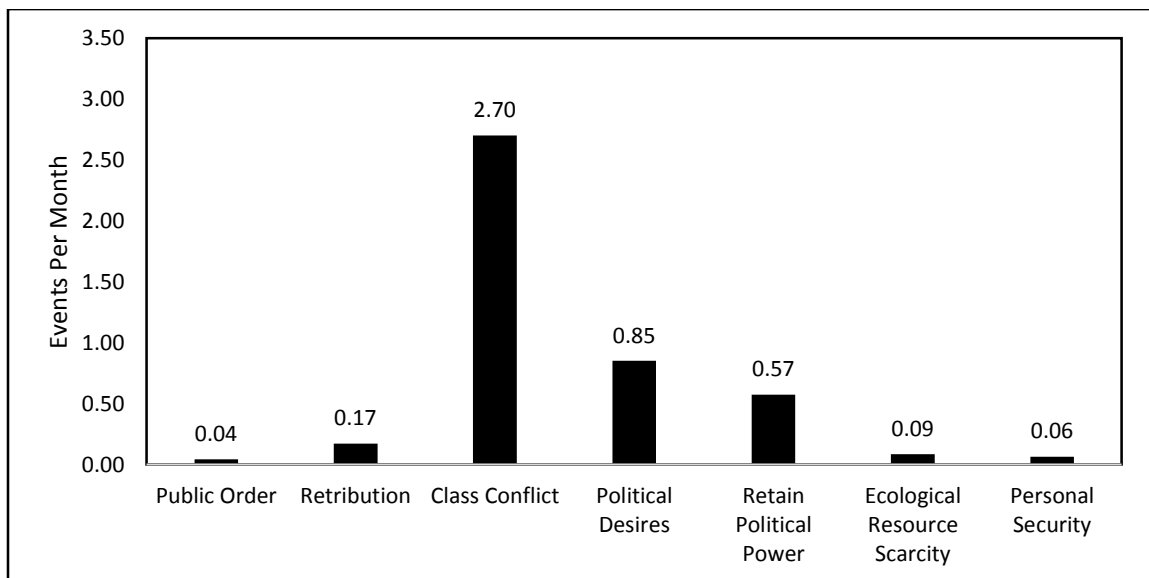
Figure 4.8: The average number of civil unrest events per month by motivation under the Carter administration

The disconnect between the perpetrators of domestic and international terrorism was also evident under the Carter administration, with no groups being among the most frequent known aggressors for both geographic categories (Table 4.4). The most frequent terrorist organizations to commit attacks on US soil were the *Fuerzas Armadas de Liberacion Nacional*, Omega-7, and the New World Liberation Front. The Sandinista National Liberation Front was the only organization to commit more than 10 acts of terrorism against the US internationally. Once again it should be noted that a great deal of international attacks against the US were committed by an unknown perpetrator. Out of the 345 terrorist attacks that targeted the US beyond its borders, the GTD data lists the perpetrator as unknown in 34.2% of them.

Table 4.4: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Carter administration

Rank	Domestic	Attacks	International	Attacks
1	Fuerzas Armadas de Liberacion Nacional	48	*Unknown*	118
2	*Unknown*	45	Sandinista National Liberation Front	12
3	Omega-7	31	Fighting Popular Rally	7
4	New World Liberation Front (NWLF)	26	Montoneros (Argentina)	7
5	Individual	21	Armenian Secret Army for the Liberation	6
6	Revolutionary Commandos of the People	15	People's Liberation Forces (FPL)	6
7	George Jackson Brigade	12	Mujahedin-e Khalq (MEK)	5
8	Independent Armed Revolutionary Commandos	11	Union of the People (UDP)	5
9	Anti-Abortion Activists	10	Che Guevara Brigade	4
10	Puerto Rican Nationalists	10	M-19 (Movement of April 19)	4
11	Luis Boitel Commandos	9	Farabundo Marti National Liberation Front	3
12	Jewish Defense League (JDL)	8	First of October Antifascist Resistan	3
13	Ku Klux Klan	7	Marxist-Leninist Armed Propaganda Unit	3

14	May 19 Communist Order	7	Popular Revolutionary Bloc (BPR)	3
15	Croatian Nationalists	5	Revolutionary Commandos of Solidarity	3
16	International Committee Against Nazism	5	Turkish People's Liberation Army	3
17	Organization of Volunteers	5	April 6th Liberation Movement	2
18	Croatian Freedom Fighters	4	Guerrilla Army of the Poor (EGP)	2
19	Jewish Armed Resistance	4	Guerrillas	2
20	Macheteros	4	Irish Republican Army (IRA)	2

Turning to the content of presidential communications concerning terrorism under Carter, the most prominently used words once again featured an international focus. As displayed in Figure 4.9, "world," "Soviet," "international," and "Iran" were among the 100 most frequently used words. Although it did not appear in the 100 most frequently used words, "terrorism" was used 195 times ($\bar{x}$=4.149), which was more than four times more frequently than for either Nixon or Ford. Words such as "together" and "democratic" were also among the 100 most frequently used words, further signaling that the Carter years marked a meaningful departure from the two previous administrations.

Figure 4.9: The 100 most used words used in presidential communications under the Carter administration

Ronald Reagan (January 20, 1981 – January 20, 1989)

> *Well, I think terrorism is the hardest thing to curtail. As a matter of fact, I've said for many years that probably the only defense you have against terrorist attacks is really infiltration to try and find out in advance what their plans are. And in the last few years that's been made more difficult. We're doing our best to try and correct something like that… Well, why would anyone want to just park a car with a bomb in a street where they don't even know the people that are going to be killed and blow them up? That's exactly why they have the word "terrorist." Their belief is—there isn't a motive in the individual that they're killing. The great, senseless cruelty and tragedy of it is simply to create terror by making people generally feel unsafe* (Reagan, 1982).

Although Ronald Reagan's election was partially a backlash to Carter's handling of the Iranian hostage crisis, many of Reagan's policies shared similarities with Carter's (Müller, 2005). Continuing the expansion of the US military and other foreign conflict strategies, Reagan enjoyed much more domestic support than his predecessor (Müller, 2005; Soares, 2006). Like Ford, Reagan was also "not a detail man – especially when it

came to foreign policy – he tended to hand the keys of each department or agency to an appointee, fully trusting each with a substantial amount of delegated power" (Wills, 2004: xii). Unlike previous presidents, Reagan's public communications and ability to create political narratives were central to fomenting support for his policies and for launching the US' first war on terrorism (Gilboa, 1990). Establishing terrorist attacks as "acts of war" rather than criminal acts presents a marked departure from previous administrations. This new rhetorical framework placed terrorism within a broader set of cultural narratives surrounding America's previous war experiences, justified a military-based rather than a criminal justice response, and transformed the administration into a "war presidency" (Jackson, 2006).

Reagan matched this shift in rhetoric with the government actions that he sanctioned. As this new framing "blurred the disparate causes of international terrorism and the varied motives of terrorist groups," it enabled more consistent and military-based response to terrorism that "called into the question the Reagan administration's willingness to adhere strictly to international law" (Joyner, 1988: 29). Reagan (1985: 104) highlighted the growing influence of foreign governments that were "actively supporting a campaign of international terrorism against the United States, her allies, and moderate Third World states." Reagan's use of a wide variety of public communications succeeded in entrenching Nixon's "no concessions" stance, established clear narratives as to the causes of terrorism, suggested methods to prevent future terrorist attacks, and brought terrorism to the forefront of the public's mind (Hinckley, 1989).

Terrorism and civil unrest (f=629) followed much more similar patterns during Reagan's tenure, with a positive correlation being observed, as it was for both the Nixon

and Ford administrations (r=0.123). The peaks of terrorism and civil unrest did occur more than a year apart however, in April 1986 and December 1984, respectively. For the second successive administration terrorism was observed to decrease on average ($\hat{\beta}$=-0.061, p=0.001) while civil unrest was relatively stable ($\hat{\beta}$=-0.0202, p=0.233). Less terrorism ($\bar{x}$=10.177) occurred per month than civil unrest ($\bar{x}$=11.078, t=-1.969, p=0.050), however the numeric difference between these two event types was lower for Reagan (0.901 events per month) than it was for Carter (3.362 events per month).
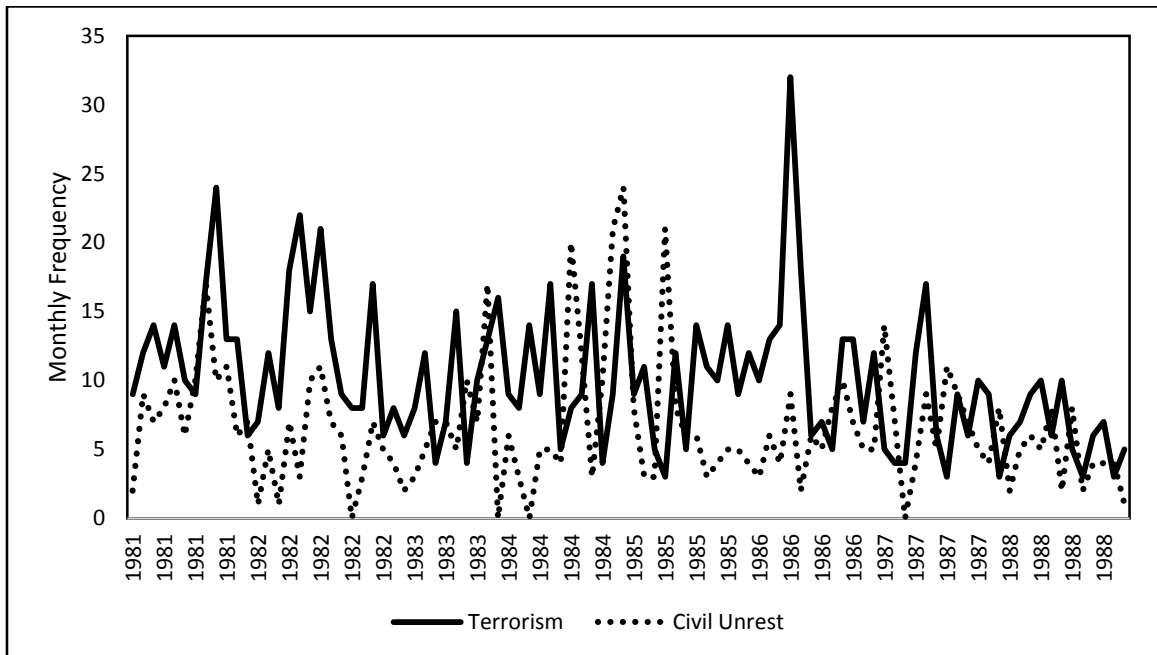
Figure 4.10: Monthly frequency of terrorism and civil unrest under the Reagan administration

Class conflict was once again the modal root motivation behind events of civil unrest within Reagan's tenure. As seen below in Figure 4.11 however, the monthly incidence of terrorism was much lower for Reagan than for Carter for almost all motivation types and for civil unrest (t=-2.17, p=0.032). The only exception to this trend was for retribution, which increased from 0.17 events per month under Carter to 0.28 events per month under Reagan.
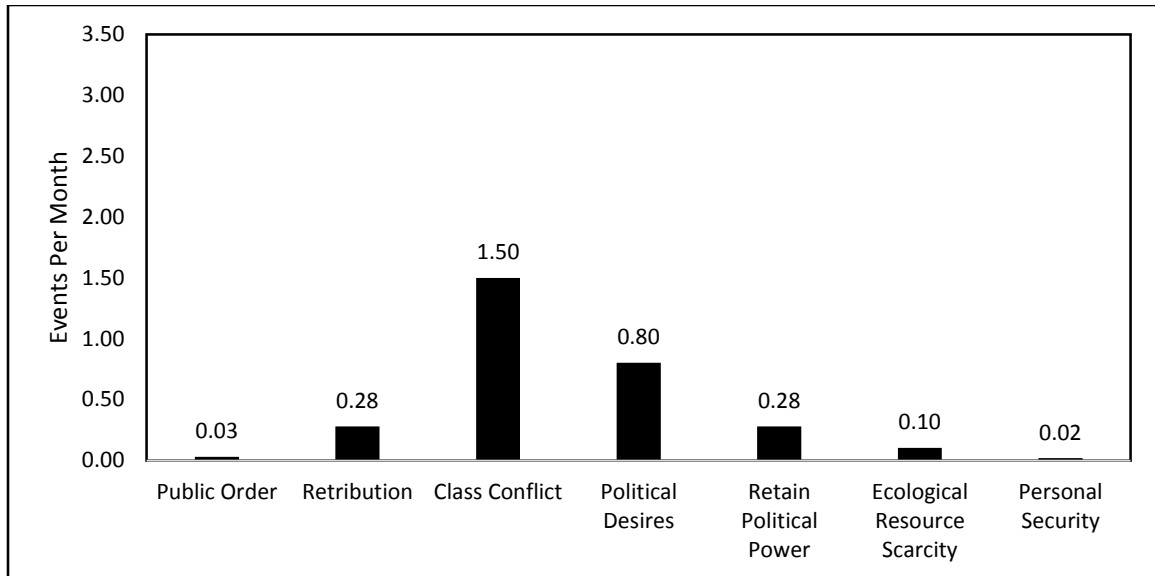
Figure 4.11: The average number of civil unrest events per month by motivation under the Reagan administration

When combined together, anti-abortion activists were responsible for more acts of

terrorism than any other groups, regardless of the geographic incidence of their attacks

(see Table 4.5). Six out of the 20 most prolific terrorist organizations domestically were

the same as during the Carter administration (Anti-Abortion Activists, *Macheteros*,

Jewish Defense League, Omega-7, May 19 Communist Order, and the Ku Klux Klan),

and four organizations remained in the top 20 for international attacks as well (M-19,

Farabundo Marti National Liberation Front, Guerrilla Army of the Poor, and the

Armenian Secret Army for the Liberation).

Table 4.5: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Reagan administration

Rank	Domestic	Attacks	International	Attacks
1	Anti-Abortion Activists	67	*Unknown*	204
2	*Unknown*	56	Shining Path (SL)	42
3	Macheteros	28	Basque Fatherland and Freedom (ETA)	27
4	Jewish Defense League (JDL)	27	Tupac Amaru Revolutionary Movement	21
5	United Freedom Front (UFF)	19	Red Army Faction (RAF)	18
6	Omega-7	18	M-19 (Movement of April 19)	17
7	Army of God	14	Hizballah	16

8	Individual	14	National Liberation Army of Colombia	15
9	May 19 Communist Order	12	Manuel Rodriguez Patriotic Front (FPMR)	12
10	Fuerzas Armadas de Liberacion Nacional	11	Revolutionary People's Struggle (ELA)	11
11	Organization of Volunteers	10	Lorenzo Zelaya Revolutionary Front	8
12	Cuban Exiles	8	New People's Army (NPA)	8
13	The Order (Silent Brotherhood)	8	Revolutionary Armed Forces of Colombia	8
14	Guerrilla Forces for Liberation	7	Farabundo Marti National Liberation Front	7
15	Armenian Secret Army	6	Guerrilla Army of the Poor (EGP)	6
16	Aryan Nation	5	African National Congress	5
17	Justice Commandos for the Armenian	5	November 17 Revolutionary Organization	5
18	Ku Klux Klan	5	Revolutionary Cells	5
19	Animal Liberation Front (ALF)	4	Action Directe	4
20	Covenant, Sword and the Arm of the Lord	4	Armenian Secret Army for the Liberation	4

Unsurprisingly given that Reagan had established terrorism into a new level of prominence, (Gilboa, 1990), he and his press secretaires used the word "terrorism" more frequently, as can be observed below in Figure 4.12. Throughout Reagan's administration, "terrorism" was used 747 times, equating to 7.781 times per month, a 187.5% increase over Carter's montly rates. Evidencing Reagan's war-like framing of terrorism (Gilboa, 1990; Jackson, 2006), words including "defense," "weapon," "military," and "war" also featured among the 100 most frequently used words in these terrorism communications. Hinckley's (1989) observation that Reagan's terrorism narratives had a future-oriented and strategic tone can also be corroborated by the frequency of the words "believe," "future," and "never."
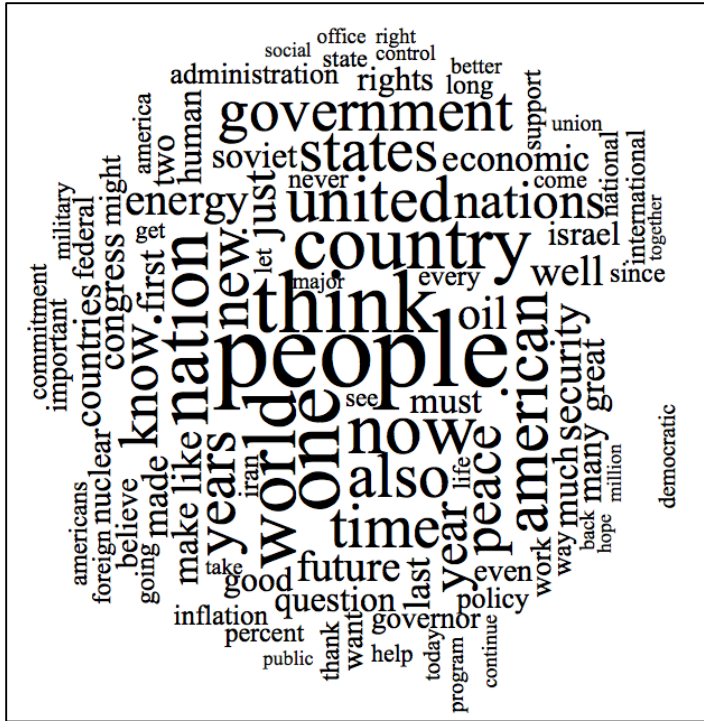
Figure 4.12: The 100 most used words used in presidential communications under the Carter administration

<u>*George H. W. Bush (January 20, 1989 – January 20, 1993)*</u>

> *We can't fool ourselves. Those who would challenge us, and we're seeing it right now as we try to decide what we should do over in Iraq, those who would challenge freedom's gains are many. We continue to face threats in the world of terrorism where a lot of good work has been the antiterrorist work. And the intelligence contributing to that out here has been fantastic. Many here are concerned about and have worked on weapons proliferation. And of course, I remain very much concerned about that* (Bush I, 1993).

The presidency of George H. W. Bush (Bush I) witnessed a number of major global events, including the fall of the Berlin Wall and German Unification, as well as the end of the Cold War with Soviet Union. Continuing many of the international diplomatic relationships that he began during his vice-presidency under Reagan, Bush I exercised a great deal of caution in his approach to defense and to the declining influence of Communism (Knott, 2005). Evident in his response to the Chinese government's violent

suppression of pro-democracy protestors in Tiananmen Square in 1989, the Bush I administration imposed only limited sanctions against China despite widespread calls for a punitive response (Knott, 2005). Despite previous allegiances between Manuel Noriega and the Reagan administration, Bush I demonstrated that he was not tied to previously established strategic stances. Following Noriega's indictment on drug trafficking charges and the killing of a US serviceman by his military forces, Bush I deployed the US military to overtake the Panamanian military under *Operation Just Cause*, which eventually resulted in Noriega's surrender and imprisonment on drug charges (Knott, 2005).

Responding to the Iraqi invasion of Kuwait in 1990, Bush I began to assemble an international coalition to oppose this occupation, beginning the Persian Gulf War. Culminating in a wave of airstrikes under *Operation Desert Storm*, Bush I and the Iraqi leadership agreed to a ceasefire in 1991 after two months of fighting (Knott, 2005). Prior to this conclusion, Reese and Buckalew (1995: 40) assert that Bush I routinely presented the "illusion of triumph" with regard to the Persian Gulf War, portraying war protesters as anti-patriotic. Employing Reagan's rhetorical approach, Le Billon and El Khatib (2004: 109) argue that this "war of liberation" for the Kuwaiti people was a public justification for expanding the "war on terrorism" to include oil-funded state dictators. Echoed by Wright (2007) and Gershkoff and Kushner (2005), Bush I's public redefinition of US and global security within his public communications related to the Persian Gulf War would help to frame and foreshadow the strategic objectives that his son, George W. Bush, would present during the second "war on terrorism," following the September 11th attacks in 2001.

In comparison to previous administrations, Bush I was confronted with fewer incidents of civil unrest per month compared to Reagan (t=-3.340, p=0.001), Carter (t=-3.923, p<0.001), and Nixon (t=-4.540, p<0.001). This was not the case in comparison to Ford however, whereno statistically significant difference was observed between the two in the monthly rate of civil unrest (t=-0.807, p=0.423). Terrorism did increase under Bush I in comparison to Reagan ($\bar{x}$=14.104, t=2.846, p=0.006), further suggesting that civil unrest and terrorism do not necessarily follow similar patterns within the US. As can be seen below in Figure 4.13, there was also a marked peak in terrorism in January and February of 1991.
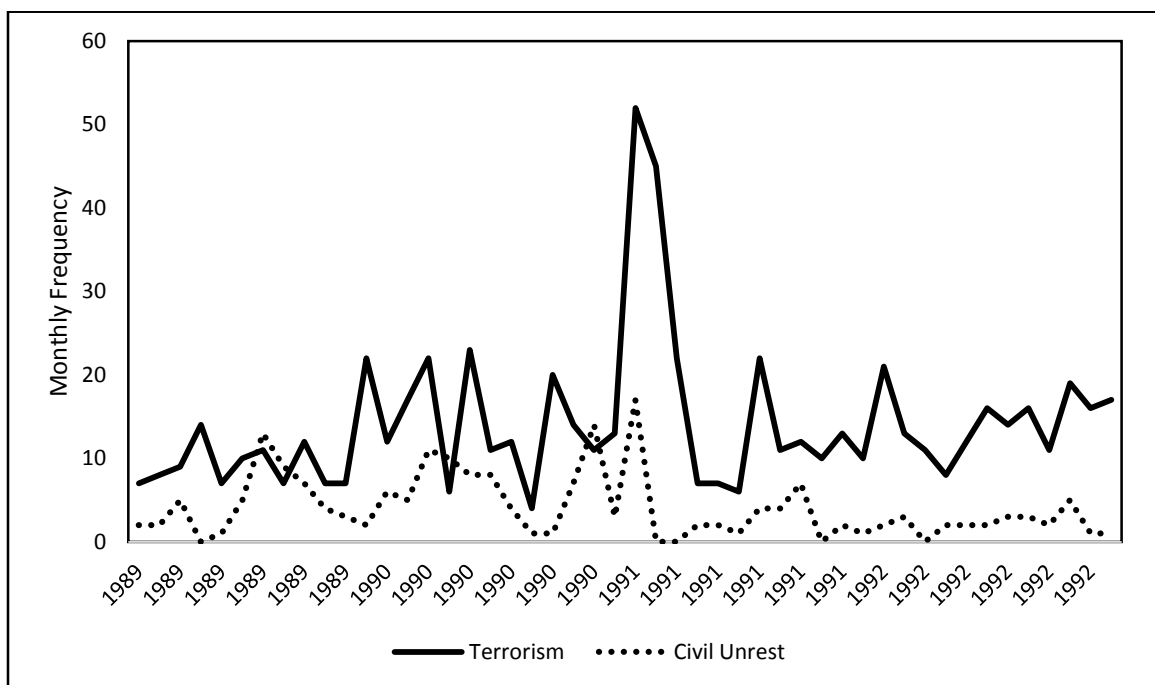
Figure 4.13: Monthly frequency of terrorism and civil unrest under the Bush I administration

Further remarking the Bush I presidency from his predecessors, the incidence of civil unrest also displayed a number of different features. Firstly, class conflict (f=32)

was not the modal motivator and was instead replaced by political desires (f=33).[31] In

addition, no civil unrest events were coded as being driven by ecological resource

scarcity or personal security during this four-year period. Taken together, these figures

indicate that once again, political dissent may have meaningfully differed in both

prevalence and motivation across different presidencies.
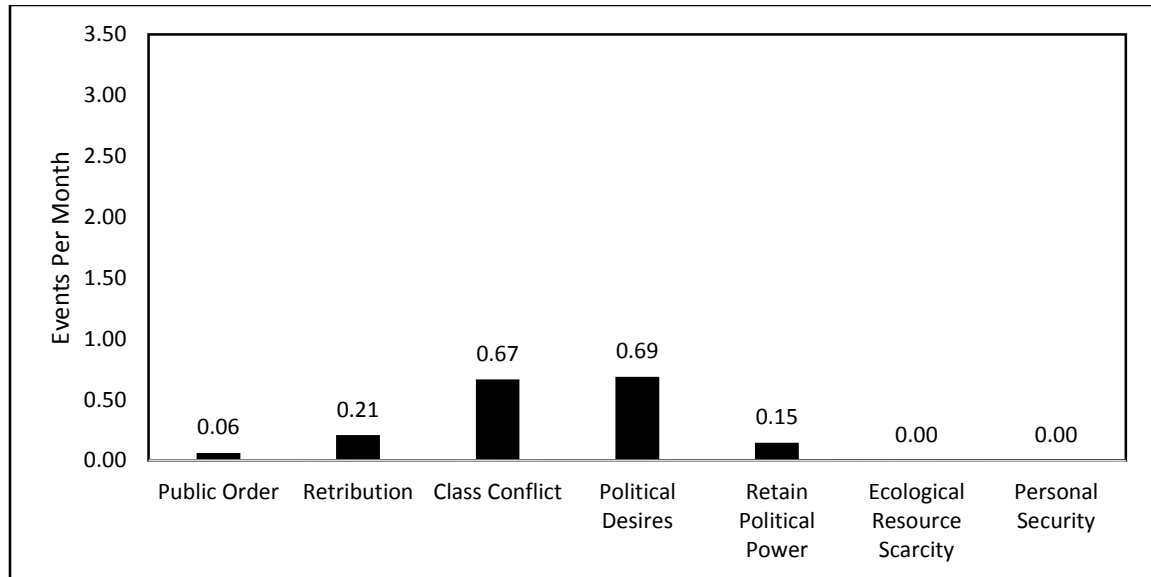
Figure 4.14: The average number of civil unrest events per month by motivation under the Bush I administration

Numerous similarities in the perpetrators of terrorism emerged between the

Reagan and Bush I administrations. Excluding the unknown and individual categories,

five terrorist perpetrator categories from the top 20 under Reagan were also present for

Bush I (Table 4.6: Anti-Abortion Activists, Animal Liberation Front (ALF), Cuban

Exiles, *Macheteros*, and the Army of God). The most frequent perpetrator, Anti-Abortion

Activists, also remained consistent across the two presidencies. The perpetrators of

international terrorism against the US also remained displayed a number of similarities,

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[31] Within the SPEED database, political desires include the explicit desire to increase: equality, freedom of expression, right to self-determination, and other political freedoms (Nardulli and Hayes, 2011: 44).

with eight of the top 20 most prolific terrorist organizations being the same for both Bush

I and Reagan (Shining Path, Tupac Amaru Revolutionary Movement, National Liberation

Army of Colombia, Manuel Rodriguez Patriotic Front, New People's Army,

Revolutionary Armed Forces of Colombia, and the November 17 Revolutionary

Organization). While these similarities may be driven by the high number of number of

international attacks committed by unknown perpetrators (53.0% of all international

attacks under Bush I), this continuity is unsurprising given the political continuity

following from the Reagan administration, during which Bush I served as the Vice

President.

Table 4.6: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Bush I administration

Rank	Domestic	Attacks	International	Attacks
1	Anti-Abortion Activists	42	*Unknown*	287
2	*Unknown*	36	United Popular Action Movement	28
3	Animal Liberation Front (ALF)	8	Manuel Rodriguez Patriotic Front (FPMR)	21
4	Americans for a Competent Federal Judiciary	5	New People's Army (NPA)	19
5	Pedro Albizu Campos Revolutionary	4	Dev Sol	18
6	Popular Liberation Army (Puerto Rico)	4	Tupac Amaru Revolutionary Movement	15
7	Up the IRS, Inc	4	Shining Path (SL)	9
8	Cuban Exiles	3	National Liberation Army of Colombia	8
9	Tontons Macoutes	3	November 17 Revolutionary Organization	7
10	Anti-Environmentalist	2	Farabundo Marti National Liberation	6
11	Christian Liberation Army	2	20 December Movement (M-20)	4
12	Individual	2	Brunswijk Jungle Commando	4
13	Macheteros	2	Kurdistan Workers' Party (PKK)	4
14	Puerto Rican Nationalists	2	Milicias Rodriguistas	4
15	Animal Rights Activists	1	Revolutionary Armed Forces of Colombia	4
16	Anti-Government Group	1	Gracchus Babeuf	3
17	Army of God	1	Narco-Terrorists	3
18	Boricua Revolutionary Front	1	Patriotic Morazanista Front (FPM)	3

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| 19 | Earth First! | 1 | Pirates | 3 |
| 20 | Earth Night Action Group | 1 | Revolutionary People's Struggle (ELA) | 3 |

The similarities between the Reagan and Bush I administrations are most evident however with regard to the words that they most frequently used when discussing terrorism. Of the 100 most frequently used words, 79 were the same across both presidencies. Indeed the 28 most frequently used words by Bush I were contained within the 100 most frequently used words by Reagan. "Got" was the most frequently used word by Bush I that was not in the top 100 for Reagan. Bush I and his press secretaries used the word "terrorism" 184 times (3.833 times per month), approximately half the rate that "terrorism" was mentioned within the Reagan administration (7.781 times per month). The word cloud of the 100 most frequently used words by Bush I and his press secretaries can be seen below in Figure 4.15.

Figure 4.15: The 100 most used words used in presidential communications under the Reagan administration

> *Justice in this case must be swift, certain, and severe. And for anyone who dares to sow terror on American land, justice must be swift, certain, and severe. We must move on with law enforcement measures quickly. We must move so that we can prevent this kind of thing from happening again. We cannot allow our entire country to be subjected to the horror that the people of Oklahoma City endured. We can prevent it and must do everything we can to prevent it. I know that we would do this together without regard to party, and I'm looking forward to this discussion of it* (Clinton, 1995).

Bill Clinton was the first president to enter office after the conclusion of the Cold War, and he inherited a much less predictable geopolitical context than many of his predecessors (Badey, 1998). In addition to the fall of the Soviet Union, a number of political readjustments were required in Clinton's early tenure to respond to the aftermath of the Persian Gulf War and rapid escalations in Somalia, Haiti, and Bosnia (Badey, 1998). Initially, and in contrast to the allusions of war made by previous presidents, Clinton's counterterrorism strategy and rhetoric primarily focused on findings means to prevent terrorism (Feste, 2011; Waugh and Sylves, 2002). Clinton broadly employed his conflict-avoidance strategy through informally styled public communications (Feste, 2011). In tune with this approach, when confronted by the 1993 World Trade Center bombing after only one month in office, the Clinton administration responded by producing a publicly discernable and cohesive counterterrorism policy (Badey, 1998).

Clinton's initial approach to terrorism, particularly in rhetoric, developed over the course of his administration. Adhering to his commitment to employ the best available resources to combat terrorism, Clinton's administration initially publicly advocated for "bridging the gap" to bring about closer collaboration between academics and policymakers (Crenshaw, 2000). Over the course of his presidency however, Clinton

began to respond to terrorist attacks by using classic deterrence language as evidenced in the above quote, and eventually language reminiscent of Reagan's allusions to terrorism as war (Badey, 1998). Confronted by the Oklahoma City Bombing and following the destruction of two East-African US embassies by Al-Qaida, Clinton increasingly turned to the same rhetorical devices employed by Reagan (Davis, 2003). Toward the end of his second term, Clinton was weakened by domestic political issues, including the Monica Lewinski scandal, which brought about his eventual impeachment. This led Clinton to adopt a more hardline approach to terrorism, as he lacked the political capital to mobilize security agencies to address the terrorist threat in line with his initial, less combative approaches (Feste, 2011).

Despite the less predictable geopolitical landscape that Clinton inherited following the close of the Cold War (Badey, 1998), as it can be seen in Figure 4.16 below, terrorism targeting the US declined over the course of his presidency ($\hat{\beta}$=-0.083, $p<0.001$).[32] However, this trend was evident only for attacks targeting the US overseas ($\hat{\beta}$=-0.060, $p<0.001$) and not domestically ($\hat{\beta}$=-0.023, $p=0.103$). The opposite trend was apparent for civil unrest in the US, which increased over this period ($\hat{\beta}$=0.030, $p=0.010$). While this may be partially due to the extremely low levels of civil unrest under Bush I, these diverging trends once again suggest that civil unrest and terrorism do not have a positive statistical relationship within this period.

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[32] As it can be seen below, terrorism data from 1993 were unfortunately missing from the GTD and were not included in Figure 4.16 or any subsequent analyses or discussions. A full description of this can be found in Chapter 5.
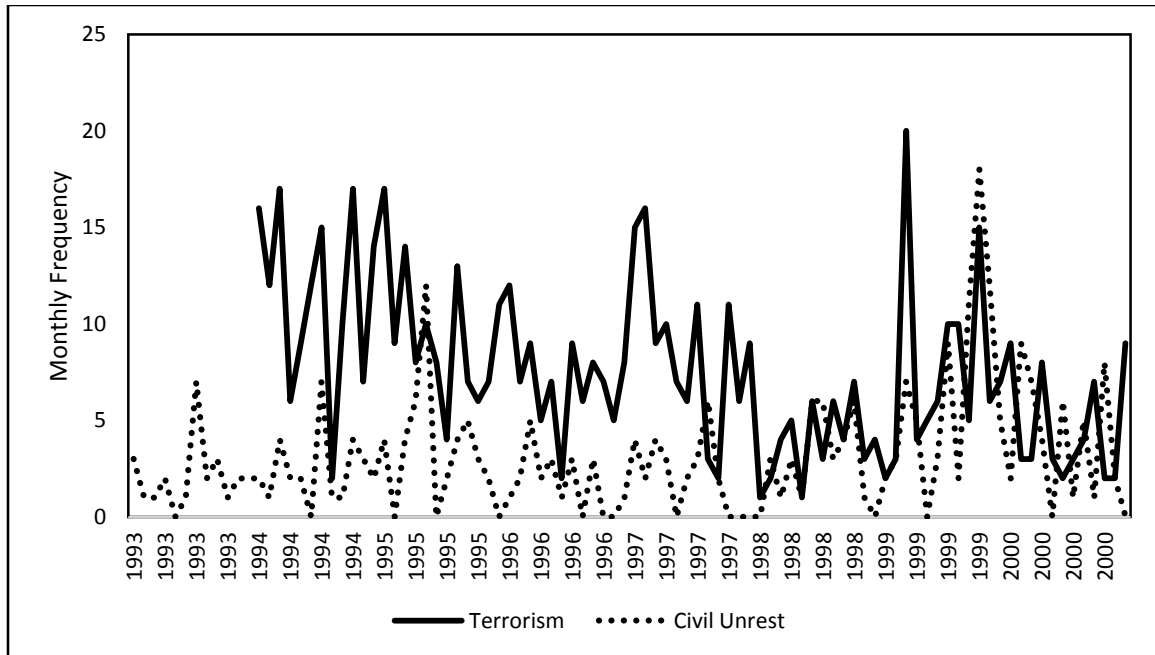
Figure 4.16: Monthly frequency of terrorism and civil unrest under the Clinton administration

The civil unrest distribution observed under every presidency other than Bush I resumed under Clinton, with class conflict again observed to be the modal motivator. Ecological resource scarcity and personal security-based civil unrest events did return during these years but were limited to 6 and 4 separate incidents respectively. With these exceptions, the monthly incidence of all other motivation types was lower under Clinton. Thus, despite the overall positive trend of civil unrest under Clinton, there were numerically fewer incidences of civil unrest under his tenure compared to every previous president that has been discussed, however this difference was not statistically different than Bush I (t=1.527, p=0.131).
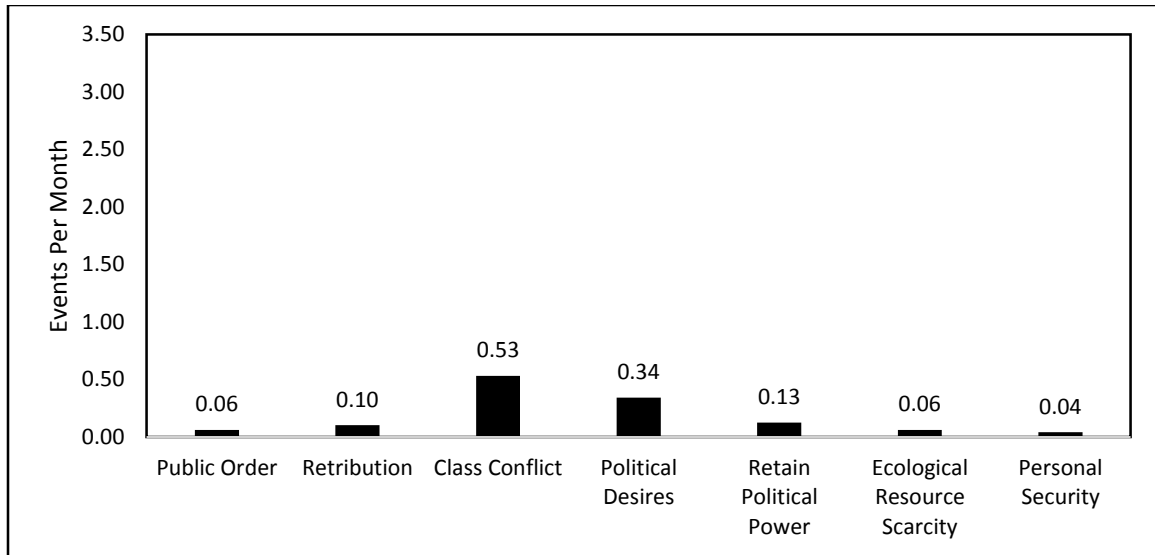
Figure 4.17: The average number of civil unrest events per month by motivation under the Clinton administration

The Clinton presidency was also the first to experience attacks by Al-Qa ida against the US (see Table 4.7). Perhaps marking the changing geopolitical conditions, the Clinton administration also saw less continuity in the 20 most prolific groups that targeted the US internationally, with only four groups in common with Bush I (Revolutionary Armed Forces of Colombia, National Liberation Army of Colombia, November 17 Revolutionary Organization, and the New People's Army). In line with the geo-instability after the fall of the Soviet Union, particularly in former Communist strongholds, these terrorist groups were from Colombia, Cyprus, and the Philippines. Domestically, five groups perpetrator types remained in the top 20 under Clinton (Animal Liberation Front, Army of God, Anti-Government Group, *Macheteros*, and Earth First!). The Clinton administration also experienced the return of Ku Klux Klan terrorist attacks after their relative absence under Bush I.

Table 4.7: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Clinton administration

Rank	Domestic	Attacks	International	Attacks
1	*Unknown*	90	*Unknown*	206

2	Individual	49	Revolutionary Armed Forces of Colombia	19
3	Anti-Abortion Activists	39	National Liberation Army of Colombia	11
4	Animal Liberation Front (ALF)	33	Other	6
5	Aryan Republican Army	16	November 17 Revolutionary Organization	5
6	Earth Liberation Front (ELF)	16	Al-Qa ida	4
7	The Justice Department	13	Individual	3
8	Army of God	6	Recontras	3
9	Coalition to Save the Preserves (CSP)	6	Revolutionary Nuclei	3
10	World Church of the Creator	6	Simon Bolivar Guerrilla	3
11	Anti-Government Group	4	The Extraditables	3
12	White Extremists	4	al-Gama'at al-Islamiyya (IG)	3
13	Macheteros	3	Abu Sayyaf Group (ASG)	2
14	Neo-Nazi Group	3	Anti-Establishment Nucleus	2
15	Earth First!	2	Bandits	2
16	Farm Animal Revenge Militia (FARM)	2	New People's Army (NPA)	2
17	Ku Klux Klan	2	Palestinians	2
18	Maccabee Squad and the Shield of David	2	Afrikaner Resistance Movement (AWB)	1
19	Palestinians	2	Al Faran	1
20	Phineas Priesthood	2	Al Hadid	1

One of the key observations regarding Clinton's terrorism communications was that he employed a closer collaboration between academics and policymakers (Crenshaw, 2000). While "policy" was among the 100 most used words by Clinton, it was the 93rd most frequently used word. "Policy" was said 2,353 times by Clinton and his press secretaries, nearly double the most used word by Bush I ("think," f=1,291), and nearly as many times as the most frequently used word by Reagan ("people," f=2,409). The full list of the 100 most frequently used words by Clinton and his press secretaries can be seen below in Figure 4.18. Beyond using language that was reminiscent of Reagan's allusions to terrorism as war (Badey, 1998; Davis, 2003), 76 out of the 100 most frequently used

words by Clinton were also the same as those used by Reagan. Despite this abundance of

similarities, the absence of the words "Soviet," "nuclear," "war," "military," and

"defense" do however confirm key differences in the language and political framing used

between Clinton and Reagan.

Figure 4.18: The 100 most used words used in presidential communications under the Clinton administration

George W. Bush (January 20, 2001 – January 20, 1993)

> *Today our Nation saw evil, the very worst of human nature. And we responded with the best of America, with the daring of our rescue workers, with the caring for strangers and neighbors who came to give blood and help in any way they could. Immediately following the first attack, I implemented our Government's emergency response plans. Our military is powerful, and it's prepared. Our emergency teams are working in New York City and Washington, DC, to help with local rescue efforts. Our first priority is to get help to those who have been injured and to take every precaution to protect our citizens at home and around the world from further attacks* (Bush II, 2001).

More than any other preceding US president, terrorism and responses to terrorism were central to the presidency of President George W. Bush (Bush II). Drawing upon the techniques employed by Reagan and with an increased focus on religion, Bush II's administration saw the revival of terrorism as an act of war (Turek, 2014). Prompted by the September 11th, 2001, attacks in New York, Pennsylvania, and Washington, Bush II and his administration enjoyed an unprecedented increase in public approval and political support as the US populace "rallied around the flag" (Hetherington and Nelson, 2003: 37). Bush II framed these terrorist attacks as vile and heinous, and further claimed that a decisive US response was essential for ongoing security from terrorism and other existential threats (Buckley and Singh, 2006). Within a nation reeling from the stark reminders of individual mortality from the September 11th attacks, Bush II was able to use his public communications to increase his long-term favorability (Landau et al., 2004), a key factor for his reelection in 2004 (Abramowitz, 2002; Campbell, 2005).

It was within this political climate that Bush II proceeded to centralize and nationalize policy formerly controlled by state governments in education, sales tax, emergency management, infrastructure, and elections administration (Posner, 2007). After initiating major tax cuts in 2001 (Yagan, 2015) and beginning wars in Afghanistan in 2001 and Iraq in 2003, Bush II's administration eroded the national economic surplus left by Clinton's (Canova, 2008). Notwithstanding the economic downturn at the end of his second term, through Bush II's calls for multilateral and global responses to terrorism, both the prominence of Islamic terrorism and the use of US militarism to combat terrorism increased dramatically during this period (Kellner, 2004).

Both terrorism and civil conflict followed very similar monthly patterns for the first five years of Bush II's presidency (r=0.448). As it can be seen in Figure 4.19 below however, across the period that can be examined, no statistically significant differences were observable in the month incidence of terrorism and civil unrest (6.983 vs. 8.467, t=0.490, p=0.626). Also, with the exception of May 2002 and the end of 2005, both terrorism and civil unrest in the US had nearly identical monthly peaks. For this final period, the trajectory of civil unrest was also negative ($\hat{\beta}$=-0.083, p=0.041), as one would predict given the "rall[y] around the flag" phenomenon following the September 11th attacks (Hetherington and Nelson, 2003: 37). Terrorism, whether overseas or domestic, did not witness any observable trends in its incidence during this period.
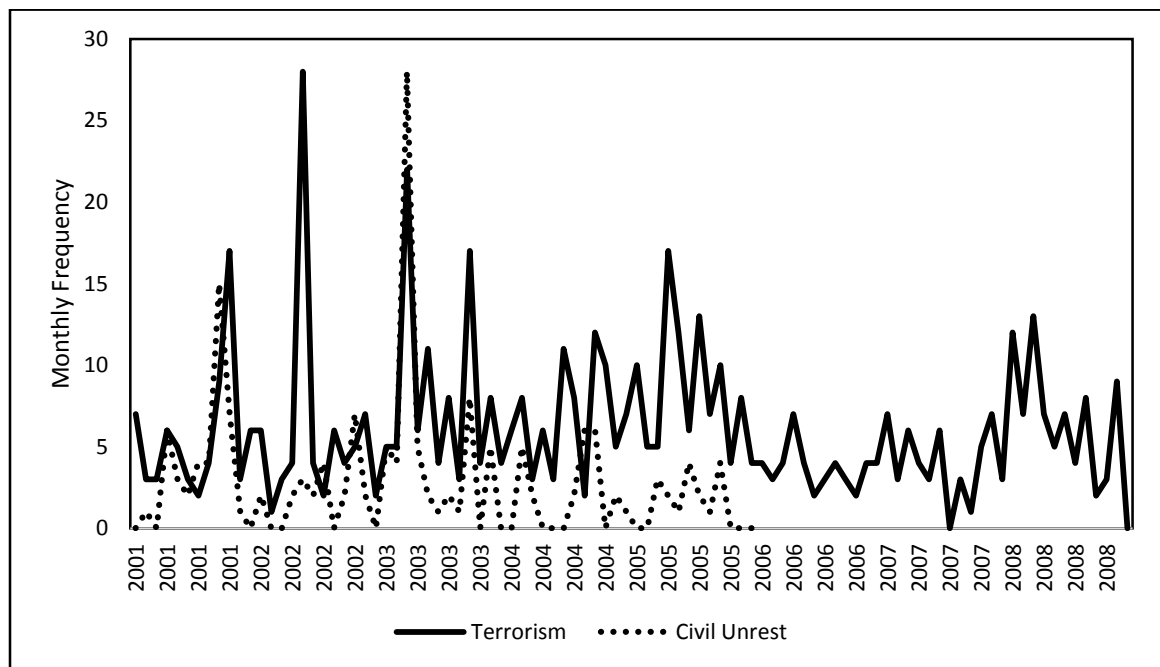
Figure 4.19: Monthly frequency of terrorism and civil unrest under the Bush II administration

In line with every presidency with the exception of Bush I, the modal motivation for civil unrest was once again class conflict (Figure 4.20). Contrary to the "rall[y] around the flag" observation (Hetherington and Nelson, 2003: 37) however, Bush II did

witness numerically more incidents of civil unrest that Clinton did per month (3.115 vs.

2.85 under Clinton). This difference however was not statistically significant (t=0.416,

p=0.679).
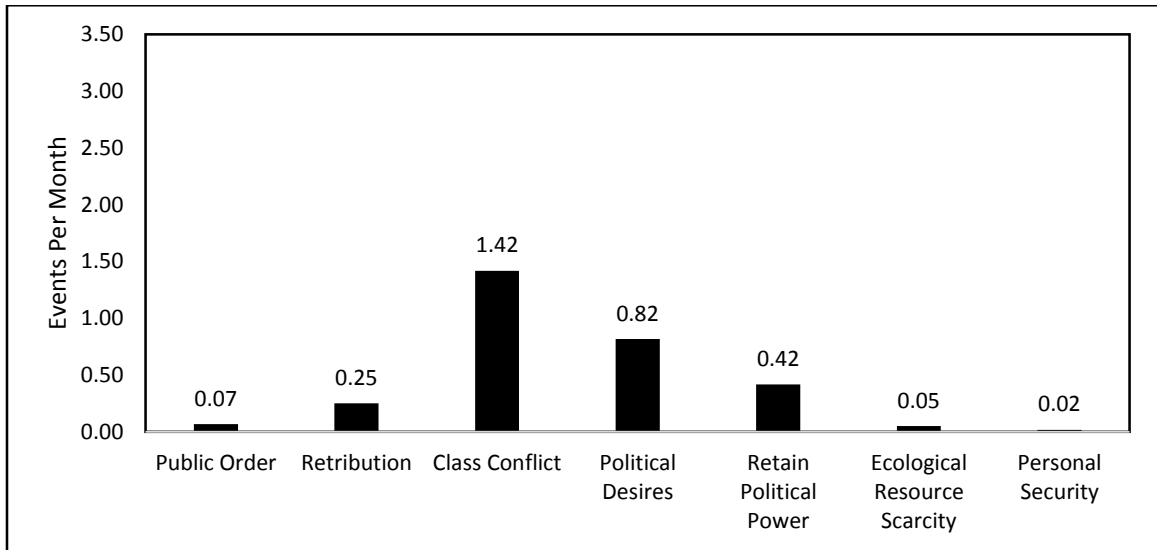
Figure 4.20: The average number of civil unrest events per month by motivation under the Bush II administration

The Bush II presidency also saw remarkably little variation in the variety of

organizations that were recorded as having committed terrorist attacks on US soil (see

Table 4.8). Only nine different groups were recorded in total; three of which were white

supremacist groups and another three were environmental groups. For only the second

time in the period being examined, a terrorist group was featured in the top 20 most

prolific terrorist groups both domestically and internationally - Al-Qa' ida. Al-Qa' ida

and associated movements were observed to be responsible for four attacks on US soil

and 21 attacks against the US overseas. Only three groups remained on the top 20

international list from the Clinton administration (Al-Qa' ida, Revolutionary Armed

Forces of Colombia, and the National Liberation Army of Colombia).

Table 4.8: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Bush II administration

Rank	Domestic	Attacks	International	Attacks
1	Earth Liberation Front (ELF)	48	*Unknown*	257
2	*Unknown*	43	Taliban	37
3	Individual	34	Tawhid and Jihad	16
4	Animal Liberation Front (ALF)	23	Al-Qa ida in Iraq	13
5	Anti-Abortion Activists	10	Individual	7
6	Al-Qa ida	4	Other	6
7	Coalition to Save the Preserves (CSP)	2	Abu Sayyaf Group (ASG)	3
8	Neo-Nazi Group	2	Al-Qa ida in the Arabian Peninsula	3
9	Revolutionary Cells-Animal Liberation Front	2	Al-Qa'ida in Yemen	3
10	White Extremists	2	Mariano Moreno National Liberation	3
11	Ku Klux Klan	1	Movement for the Emancipation	3
12			New People's Army (NPA)	3
13			Revolutionary Armed Forces of Colombia	3
14			Abdullah Azzam Brigades	2
15			Al-Qa' ida	2
16			Chechen Rebels	2
17			Hamas (Islamic Resistance Movement)	2
18			Islamic Army in Iraq	2
19			Jemaah Islamiya (JI)	2
20			National Liberation Army of Colombia	2

The Bush II administration also saw the revival of terrorism as an act of war within political parlance (Kellner, 2004; Turek, 2014) and "war" was the 23rd most used word in terrorism communications by Bush II and his press secretaries (f=12,102). This framing was so prevalent that "war" was used more often than "terrorism" (f=8,047) in communications regarding terrorism. As seen below in Figure 4.21 below, the top 100 words used by the Bush II administration did share 76 words in common with Clinton, however it should be noted that "war" was one of the unique words in the top 100 between these two administrations.
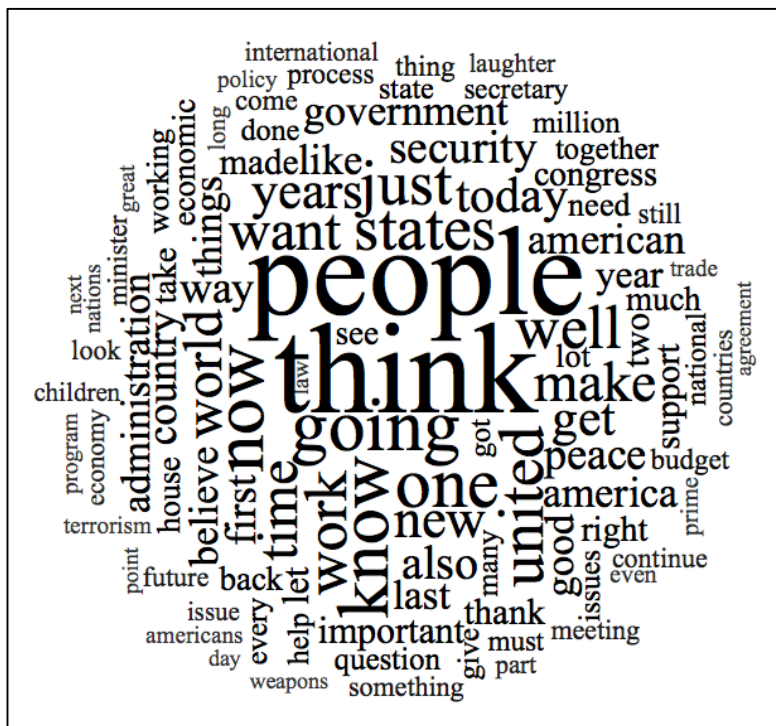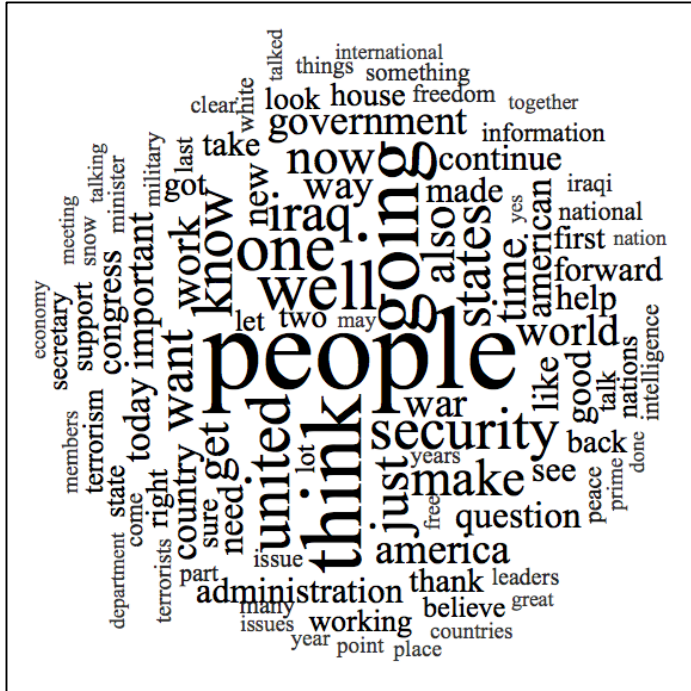
Figure 4.21: The 100 most used words used in presidential communications under the Clinton administration

Barack Obama (January 20, 2009 – January 20, 2017)

> *Now is the time for a new era of international cooperation that strengthens old partnerships and builds new ones to confront our common challenges and to defeat terrorism worldwide. Terrorism continues to represent one of the greatest challenges to international peace, stability and security. We reiterate, in the strongest terms, our firm condemnation of this phenomenon in all its forms and manifestations. All acts of terrorism - by whomever committed - are criminal, inhumane and unjustifiable, regardless of motivation, especially when they indiscriminately target and injure civilians. In particular suicide bombings - and recruiting the young or disadvantaged to carry out such acts - as well as abductions and the taking of hostages are repugnant practices* (Obama, 2009a).

As evidenced in the above quote, and in contrast to Bush II, the Obama administration moved to reframe terrorism as a criminal act rather than an act of war. Distancing himself from Bush II, Obama immediately began constructing a counterterrorism campaign that was perceived to be morally acceptable, more focused on key strategic initiatives, and more effective (McCrisken, 2011). Despite this difference in

political framing, Obama's counterterrorism strategies expanded Bush II's commitment to militaristic counterterrorism tactics, as demonstrated by his pursuit and targeted killing of the Al-Qa' ida leader Osama bin Laden (McCrisken, 2011). Exemplified through his deployment of Unmanned Aerial Vehicles (UAVs), or drones, to target terrorist operatives in countries including Pakistan, Somalia, and Yemen (Boyle, 2013), Obama's administration killed dozens of high-value terrorist targets, while also ending the Iraq war (McCrisken, 2011; Williams, 2010). Consequently, Jackson (2011: 406) concludes that "the actual practices of the war on terror will continue along their current trajectory under [the remainder of Obama's] administration with only slight tactical adjustments."

The Obama administration saw the fewest terrorist attacks per month of the eight administrations ($\bar{x}$=2.875), even fewer than the 6.125 per month against the US under Bush II (t=6.320, p<0.001). As can be seen in Figure 4.22, in the period observed, there were no more than 10 attacks at any given point, and five months elapsed without a single attacks being recorded. Prior to Obama, Clinton had the lowest maximum number of terrorist attacks in a month with 20 in March, 1999.
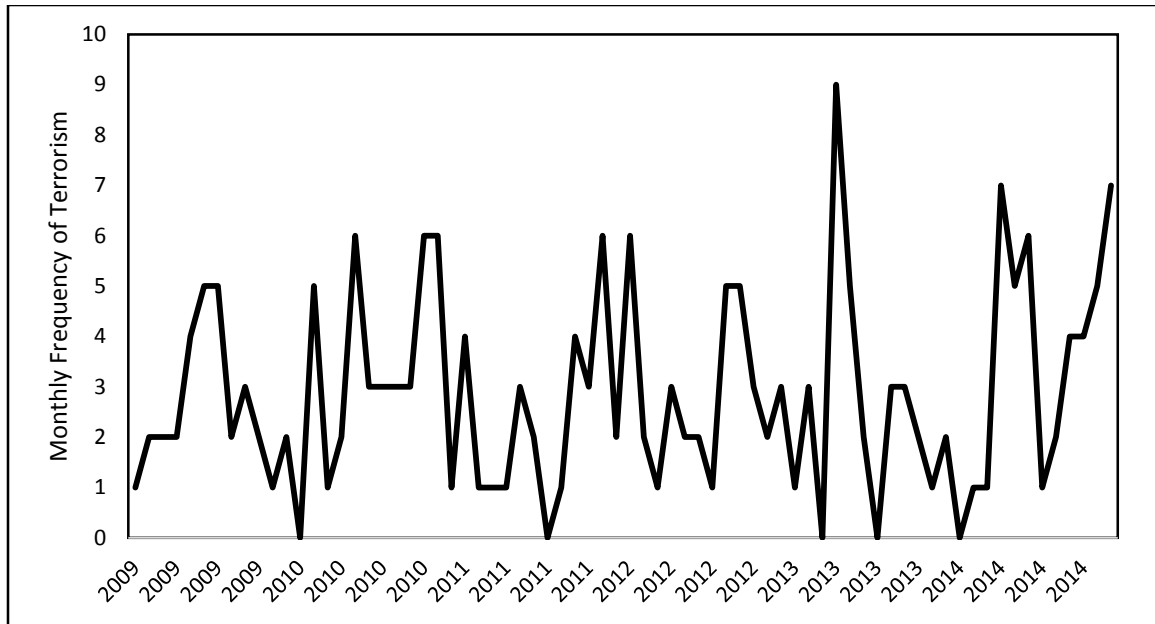
Figure 4.22: Monthly frequency of terrorism and civil unrest under the Obama administration

Similar to Bush II, in the Obama years, relatively few domestic attackers were

attributed to specific attacks (n=11). Indeed, out of the 85 domestic attacks, the

perpetrator was either an unaffiliated individual or unknown in 81.18% of attacks,

potentially masking key trends in the motivation behind these attacks (Table 4.9). The

most prolific international terrorist organization was the Taliban, marking a key

consistency between the terrorist threat faced by both Bush II and Obama.

Table 4.9: The top 20 perpetrators of domestic and international terrorist attacks that targeted the US under the Obama administration

Rank	Domestic	Attacks	International	Attacks
1	Individual	46	*Unknown*	44
2	*Unknown*	23	Taliban	15
3	Animal Liberation Front (ALF)	6	Al-Qa ida in the Arabian Peninsula	8
4	Sovereign Citizen	2	Al-Shabaab	5
5	Veterans United for Non-Religious Members	2	Movement for the Emancipation	5
6	Al-Qa ida in the Arabian Peninsula	1	Haqqani Network	4
7	Anarchists	1	Individual	4
8	Earth Liberation Front (ELF)	1	Al-Nusrah Front	3

9	Minutemen American Defense	1	Islamic State of Iraq and the levant	3
10	Tehrik-i-Taliban Pakistan (TTP)	1	New People's Army (NPA)	3
11	The Justice Department	1	Ansar al-Sharia (libya)	2
12			Donetsk People's Republic	2
13			Revolutionary Armed Forces of Colombia	2
14			Tehrik-i-Taliban Pakistan (TTP)	2
15			Ahlu-sunah Wal-jamea (Somalia)	1
16			Al-Qa ida	1
17			Al-Qa ida in the Lands of the Islamic Magreb	1
18			Ansar Bayt al-Maqdis (Ansar Jerusalem)	1
19			Asa'ib Ahl al-Haqq	1
20			Baloch Liberation Front (BLF)	1

In a key departure from Bush II, Obama and his press secretaries did not use the word "war" among the 100 most frequently used words in communications concerning terrorism. Further, even the word "terrorism" was also not among the most frequently used words by the Obama administration. Despite these key differences, 41 of the top 50 and 77 of the 100 most frequently words used words were common across both presidencies. This abundance of similarities with notable key individual differences once again suggests that while the framing may vary across presidencies, there are numerous similarities in the speech used by all presidents.
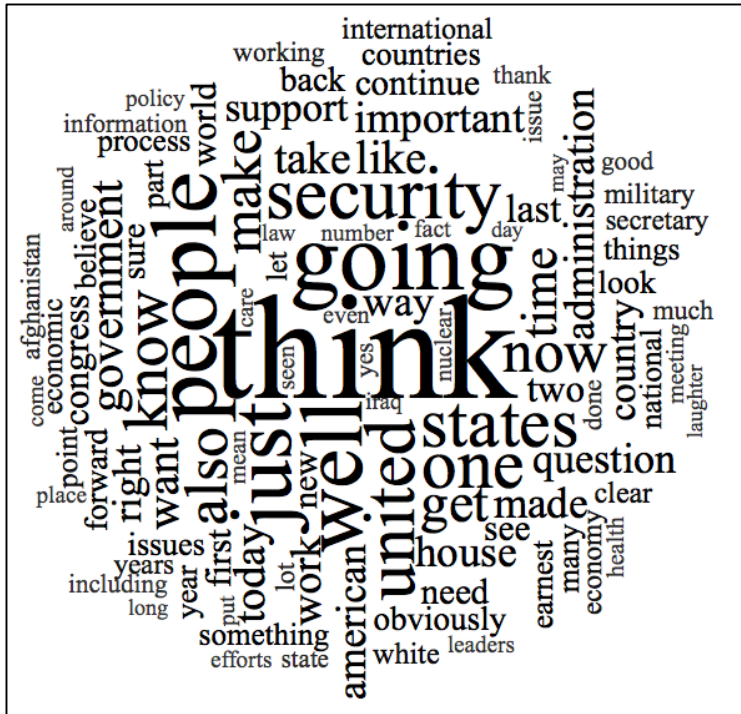
Figure 4.23: The 100 most used words used in presidential communications under the Clinton administration

Evidenced in the above overviews, each US president employed a different stance toward terrorism within their administrations. Despite these differences, numerous similarities emerged in both the language used as well as the nature of the terrorist threats. Although similarities may be expected between the Reagan and Bush I presidencies, in light of the observed differences in the terrorist threat, terrorism communications, and the nature of civil unrest, there is concordantly reason to believe that the impact of presidential communications on terrorism may vary across administrations in light of the evidence provided above.

Differential Impacts of Sentiment in Public Communications

Evidenced in the above overviews, each US president employed a different stance toward terrorism within their administrations. These different approaches likely yielded diverging influences on both civilian and terrorist audiences, particularly when terrorism

was set within either criminal justice or war agendas (Scheufele, 2000). As such, there may be administration-level differences in the effect of public communications on terrorism, as predicted by Hypothesis 3.[33]

Even within presidencies however, it is evident that political support varied over time. As public support also plays a role in determining the impact of presidents in a variety of policy domains, presidents' popularity may determine whether their communications antagonize or ameliorate existing tensions (Sigelman and Sigelman, 1981). Further, foreign policy crises, including terrorism, can lead to changes in a president's authority and power to affect policy (Young, 2013). As well, presidents with public approval ratings that are significantly higher or lower than average are also more likely to adopt unpopular policy positions (Canes-Wrone and Shotts, 2004). Thus there may be key political factors such as presidential approval that impact how terrorist organizations interpret and respond to public communications, central to Hypothesis 4.[34]

As tendered in Chapter 1, terrorist groups may rationally calculate that their attacks would have greater political impact under presidents with lower public support. If true, terrorist organizations would be more likely to respond with violence to public communications by presidents with lower than average approval ratings. Additionally, presidents with above-average approval ratings may incite less violence from their public communications, as any attacks would be less likely to result in political gains for the terrorist organization. Concordantly, the dissertation examines whether the terrorist

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[33] Hypothesis 3: The relationship between Presidential speech and subsequent terrorism will vary across administrations.

[34] Hypothesis 4: As public support becomes increasingly favorable or unfavorable (absolute value increases), the impact of presidential speech on subsequent terrorism will increase (clarity of the political situation/unity).

response to US presidential communications regarding terrorism is conditioned on the president's public favorability.

Key Changes to Political Communications and the Media

Beyond presidential variation, changes to both society and the media have had formative and enduring impacts on political communication (Wyatt, 1998, Blumler and Kavanagh, 1999). Since the end of World War II (1939-1945), political communications have become increasingly "diverse, fragmented, and complex," changing their overall manner (Blumler and Kavanagh, 1999: 209). Advances in communication technology and increased accessibility may also yield qualitative differences in the effects of presidential communications on terrorism.

Political communication in 1970 was dominated by television, and politicians, including the president, would rely on press conferences, interviews, and briefings to draw a political "line" and shape the political landscape (Blumler and Kavanagh, 1999: 212). The proliferation of televisions, along with the media's commitment to even-handed news, reduced presidents' ability to control political narratives and granted greater exposure to multiple perspectives on policy issues (Blumler and Kavanagh, 1999). Compared to previous decades, this enlarged the direct audience for political messages and engaged those who had not previously been reached (Jin and Lutz, 2013). Increased exposure to political media resulted in increasingly negative public opinions toward politics (Jin and Lutz, 2013). Those wishing to show dissent also used it to escalate political grievances and gain national recognition (Delmont, 2016). In response, politicians began pretesting their messages and adopted a highly positivistic approach to communication (Blumler and Kavanagh, 1999; Mayhew, 1997).

Driven by further technical advances and the increased desire for 24-hour news, the age of "media abundance" that followed also changed both the mechanisms for political communications as well as audience expectations (Blumler and Kavanagh, 1999: 213). Exacerbating the tensions that began in the previous era, political communications were increasingly shaped by anti-elitist populism, pressures for increased professionalism, and changes in how people receive politics (Blumler and Kavanagh, 1999). The reach and celerity of political messages were amplified by continued advances in technology including computers, handheld devices, and the internet, and resulted in the expectation that politicians will be able to provide a coherent response strategy immediately after an policy issue arises (Blumler and Kavanagh, 1999). With the subsequent emergence of "new media" and growth of the Internet, political messages have been subjected to snowballing scrutiny and public pressure as a function of the increased attention (Kahn and Kellner, 2004; Whitten-Woodring and James, 2012). As activists and dissenters have also been able to present alternative political narratives through the same media channels, political communications increased in importance for conflict as technological advances have broadened their impact (Kahn and Kellner, 2004; Whitten-Woodring and James, 2012).

This brief account of the broad changes to public communications suggests that trends in technology and political communications may also condition the impact of presidential communications. With presidential communications being subjected to increasingly stringent expectations and gaining greater international exposure throughout the examined period, these changes may have increased the likelihood of terrorists hearing these messages and thus increased their impact on terrorism. Further, with the

growth of new media and accessibility to influence political discourse, these

communications trends may have also provided alternative, non-violent pathways to

resolve political grievances.

Chapter 5: Data and Methods

Drawing upon the above theoretical discussion regarding government communication and its potential links to terrorism, this dissertation tests four sets of hypotheses to examine whether presidential public communications affect subsequent terrorism. These hypotheses were selected in order to distinguish which aspects of presidential communications impact subsequent terrorism, whether any observed impacts appear to support either restrictive deterrence or broader rational choice theories, and whether the source or context of these communications changes their impact. Before introducing the data and methods that were used to test these hypotheses, this chapter begins by briefly restating the four hypotheses.

Revisiting the Hypotheses

This first hypothesis examines whether increases in the number of presidential communications concerning terrorism affect the incidence of subsequent terrorism. From this sentiment-neutral perspective, this dissertation tests whether increases in the number of public communications concerning terrorism and granting greater political *attention* to the existing grievance leads to an increase in subsequent terrorism; or whether increases in the volume of US presidential that politically *acknowledge* the conflict can decrease subsequent terrorism.

Hypothesis 1a: **The number of speech acts by a government will increase subsequent terrorism (attention).**

Hypothesis 1b: **The number of speech acts by a government will decrease subsequent terrorism (acknowledgement).**

While hypothesis 1 provides a useful baseline, it may obscure meaningful heterogeneity in the tone and impact of these public communications concerning

terrorism. As such, the second set of hypotheses concern the sentiment of speech that is used in presidential communications. Applying restrictive deterrence and rational choice perspectives, the next set of hypotheses test how variation in sentiment impacts subsequent terrorism targeting the US.

Hypothesis 2a: **Negative speech will be related to decreases in subsequent terrorism (deterrence)**

Hypothesis 2b: **Negative speech will be related to increases in subsequent terrorism (backlash)**

Hypothesis 2c: **Positive speech will be related to decreases in subsequent terrorism (placation)**

Hypothesis 2d: **Positive speech will be related to increases in subsequent terrorism (display of weakness)**

This dissertation has argued that government communications derive some of their meaning from the specific political and social contexts from which they are delivered. Hypotheses 3 and 4 examine the assumption that the relationship between government public communications and terrorism is consistent across and within presidential administrations.

Hypothesis 3:   **The relationship between presidential communications and subsequent terrorism will vary across administrations**

Hypothesis 4:   **As public support becomes increasingly favorable or unfavorable (absolute value increases), the impact of presidential communications on subsequent terrorism will increase (clarity of the political situation/unity)**

Data

To test these four hypotheses, data were compiled from a range of sources to measure the incidence of terrorism, presidential communications, civil unrest, and the

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favorability of US presidents between 1970 and 2014. This section describes how these data were collected and how these key phenomena were operationalized. In order to observe how the impacts of presidential communication on terrorism vary over time, the data were combined into a time-series dataset using the month as the unit of analysis.

It takes time to plan, organize, and perpetrate terrorist attacks, often requiring the acquisition of technical and financial resources to execute (Hoffman, 2008; Nesser, 2008). As such, there is a temporal lag between any stimulus that alters terrorist decision-making and the terrorist event itself. Given the covert nature of terrorist planning and preparation, it is difficult to estimate how long this lag may be and to what extent it varies across attacks. Santifort, Sandler, and Brandt (2012) suggest that hostage-taking and similar forms of terrorism may take months to plan, however other more routine forms of terrorism are much faster to plan and implement. Systematically collected data produced by Smith et al. (2017) further suggest that around half of all terrorist preparatory actions occur within one month of the attack, with 75% of environmentalist preparatory actions happening less than 30 before an attack. Following the lead of other terrorism scholars (see Benlemach, Berrebi, and Klor, 2010; 2014; Dugan and Chenoweth, 2012; Fisher and Meitus, 2017) the month was selected as the unit of analysis for the following analysis to capture the temporal lag between presidential communications and the potential effects on terrorist attacks. [35]

To investigate the hypothesized relationships, data were collected from a variety of sources covering a period of 45 years (January 1970 – December 2014), yielding 540

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[35] A lag of two months was also tested for each of the analyses however these models predominantly did not yield statistically significant findings.

months of observations. As will be discussed below in greater detail, data for the primary

dependent variable, the count of terrorist events were unavailable for 1993, leaving a

final analytic sample of 528 months.

Dependent Variable – Terrorism

The primary dependent variable for this dissertation was constructed using data

from the Global Terrorism Database (GTD). As this dissertation was concerned with

observing the general impacts of presidential communication on terrorism, this dependent

variable was operationalized as the number of terrorism events occurring in the US or

that targeted at least one US national on foreign soil. This primary dependent variable

was designed to look at the aggregate impact, and treats all attacks as equivalent,

regardless of magnitude. As such, the September 11th attacks are regarded as being

equivalent to less harmful acts of terror targeting the US. To address this limitation,

secondary analyses are also conducted using the frequency of number of deaths from

these terrorist attacks to explore the impact of presidential communications or terrorism

fatalities. This dependent variable was operationalized as the number of total confirmed

fatalities for the incident including all victims and attackers.[36] Finally, in order to see

whether any observed effects were limited to domestic or international terrorism targeting

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[36] The terrorist attacks of September 11th, 2001 resulted in 3,002 deaths according to the GTD. As the average number of monthly deaths due to terrorism is 6.654 excluding the month of September, 2001 ($\bar{x}$=12.201 including September, 2001), each analysis was run with and without this month in order to examine whether any observed relationships were driven by these prominent and theoretically important attacks.

the US,[37] a series of sensitivity analyses are conducted using attacks on US soil and attacks against US citizens abroad as the dependent variables.

The GTD is an event-based database that records more than 120 variables pertaining to the date, geographic location, target of the attack, perpetrators involved, weapons used, and outcomes of terrorist incidents (LaFree, 2010; LaFree and Dugan, 2007; LaFree, Dugan, Fogg, and Scott, 2006). This open-access database documents more than 150,000 terrorist incidents that occurred globally between 1970 and 2015 (START, 2017). Unfortunately the original collectors of the GTD data, Pinkerton Global Intelligence Services (PGIS), lost data for 1993, which were therefore omitted from the present analyses. Despite this limitation, the GTD has been commonly used to examine terrorism within the extant literature (see Enders, Sandler, and Gaibulloev, 2011; LaFree and Ackerman, 2009; LaFree, Yang, and Crenshaw, 2009; Young and Dugan, 2011).

The data contained within the GTD database were collected through content reviews of global newspapers and other media sources, in addition to government and military reports (LaFree and Dugan, 2007). As such, the GTD includes information on both domestic and international terrorism from developed and developing nations (LaFree and Dugan, 2007). Terrorism is defined within the GTD as "the threatened or actual use of illegal force and violence to attain a political, economic, religious, or social goal through fear, coercion, or intimidation" (LaFree and Dugan, 2007: 184). For an

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[37] International terrorist attacks against the US were identified when the nationality of the target that was attacked was the US, but the attack occurred on non-US soil. For example, a terrorist attack against a US embassy would be considered an international terrorist attack against the US.

event to be included as a terrorist incident within the GTD, it must adhere to the following three criteria:

i. The incident was intentional (the result of a conscious calculation on the part of the perpetrator)

ii. The incident included some observable level of violence or the threat of violence

iii. The perpetrator of the incident was a sub-national actor.

In addition to these three conditions, an event must meet two of the following three criteria in order to have been included in the GTD:

i. The violent act was aimed at attaining a political, economic, religious, or social goal

ii. The violent act included evidence of an intention to coerce, intimidate, or convey some other message to a larger audience (or audiences) other than the immediate victims

iii. The violent act was outside the precepts of International Humanitarian Law (START, 2009).

The GTD also calculates the number of individuals killed in terrorist attacks using data gathered from newspapers and government reports (START, 2016). As noted above, this figure includes both the victims and perpetrators killed by terrorist attacks. Consequently, for the following analyses the number of terrorist victims was calculated by subtracting the number of terrorists killed from this figure for all overall fatalities. Fatalities caused by a terrorist attack may not be immediate, and more accurate information on deaths may not be available until a period after these events. Consequently, the number of fatalities stemming from a terrorist attack may change over time. To account for these issues, the GTD usually records the number given by the most recent source (START, 2016). In cases where this source is of questionable validity due

to the estimate being sourced from the claims of the group that perpetrated the attack, the

GTD triangulates the estimates given by all sources to arrive at a figure that is agreed

upon by a majority of sources (START, 2016). In cases where an estimate cannot be

triangulated using independent sources, the lowest estimate provided from a valid source

is recorded (START, 2016).

The GTD is both collected and maintained free from government or commercial

influences. Originally collected by a private business (PGIS), it has since been assembled

by private contractors and independent researchers from the University of Maryland and

the National Consortium for the Study of Terrorism and Responses to Terrorism

(START). Although the original collection of GTD data was funded by the US National

Institute of Justice, and is now funded by the US Department of Homeland Security and

the US State Department, the separation of data collection from a government agency is a

strength of this dataset. This separation limits the potential for political biases to

influence either the data collection procedure or the operational definitions. While

maintained as a single database, the GTD has employed four generations of data

collection.[38] To account for these methodological changes across the 45-year study

period, a series of dummy variables using the first period of data collection (1970-1997)

as the base category are used in line with Dugan and Distler's (2016) suggestions.

Another notable limitation of the GTD is that the data are primarily collected

from media sources. This however may also be considered a strength of these data as they

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[38] For the years between 1970 and 1997 data for the GTD were collected by the Pinkerton Global
Intelligence Services (PGIS), between 1998 and 2007 data were collected by the Center for Terrorism and
Intelligence Studies (CETIS), for 2008 through to the end of October 2011 data were collected by the
Institute for the Study of Violent Groups (ISVG), and from November 2011 onward the GTD data have
been compiled by the START center (Dugan and Distler, 2016).

bypass official records which are inherently biased. Due media companies' priorities, the GTD data are likely biased toward the inclusion of newsworthy terrorism targets and tactics such as suicide attacks and political assassinations (LaFree, 2010). Conversely, failed terrorist attacks occurring in more remote areas are less likely to be captured by these media sources (LaFree, 2010), leading to systematic underestimations of the number of terrorist incidents. However, given media focus on the US, these underestimations are likely smaller in comparison to developing nations.

Despite these limitations, the longevity and detail contained within the GTD allows for meaningful long-term research at multiple levels of geographic and temporal aggregation. This is the only available terrorism dataset spanning the timeframe selected by this dissertation that covers both domestic US terrorist attacks as well as attacks targeting US interests elsewhere. Consequently, in spite of the aforementioned limitations, due to its temporal scope, its consistency of measurement, and the independence of its data collection process, the GTD was selected as the most appropriate source to measure the monthly incidence of terrorism.

Primary Independent Variables – Presidential Communications

The primary independent variables that are examined by this dissertation concerned the public communications used by US presidents and their press secretaries regarding terrorism. As these communications contain many important elements that may influence the incidence of terrorism targeting the US, this dissertation uses a number of measures to examine whether any of these elements have a detectable impact on terrorism. To measure US presidential speech, data were compiled from the American Presidency Project (APP), hosted by the University of California at Santa Barbara. This

online and open-access resource provides a searchable database of 120,595 presidential

public communications (defined as delivered by US presidents or their press secretaries)

covering the years 1789 to 2016 (Woolley and Peters, 2016). This resource has been used

by numerous studies examining presidential communications (see Arthur and Woods,

2013; Bartolucci, 2012; Coleman, 2013; Dodds and Danforth, 2010; Edwards, 2003;

Hughes, 2009; Jamieson, 2007; Olsen et al., 2012; Randahl, 2016), and it is "the only

online resource that has coded and organized into a single searchable database, all

presidential speeches and papers" (Bartolucci, 2012: 565).

Within this archive, the APP research team has coded each communication in

order to delineate its important characteristics. These include whether the original

medium was in oral or written format, whether it was delivered by either the president or

press secretary, and whether it was part of an election campaign (Woolley and Peters,

2016). In order to begin to engage with the qualitative differences in presidential

communications, the variety of communication types contained within this database are

used to conduct sensitivity analyses and to examine whether the format of

communications conditions their impact on terrorism. The communication types include:

inaugural addresses, addresses to congress, State of the Union addresses, addresses to the

UN General Assembly, news conferences, written messages, and written memoranda.

Campaign documents such as debate transcripts were excluded from the compiled dataset

as they are representations of a presidential candidate rather than the holder of that

political office. After excluding the previously mentioned communications, these

procedures yielded a total of 72,263 public communications that were delivered by US

presidents and their press secretaries. Written communications and memoranda were

included in this study as they were the primary medium for communicating counterterrorism policy changes. As the medium of communication may influence its impact on terrorism however, numerous sensitivity analyses are conducted to examine whether the distinction between written and spoken communications is meaningful within this context.

In order to identify the presidential communications that concerned terrorism, a systematic search was conducted of the APP database between 1970 and 2014 using the search term "terrorism." This search term was selected because any communications that contained this word were explicitly connected to terrorism. The word terrorism was used throughout the time period being examined, and its common use helped to distinguish terrorist violence from other forms of war and crime. Additional searches using the term "terror" did not yield any additional relevant public communications. Terms such as "assassination" and "bombing" were also trialed as additional key words, however both included events that were explicitly connected to warfare or were framed as other forms of violence. As such, the compiled dataset contains all official public communications that explicitly mention terrorism that were delivered by presidents and their press secretaries. These procedures yielded an analytic sample of 6,001 presidential communications that explicitly mentioned terrorism. The dissertation calculated the monthly frequency of these communications to test the first set of hypotheses.

It should be noted that many of these presidential communications discussed related economic, diplomatic, and social issues in addition to terrorism. As many of these discussions are intertwined and discuss terrorism obliquely, much of the sentiment that is expressed toward terrorism is dependent on or contained within the discussion of other

issues within these communications. For example, discussions of climate change and the environment were often connected to exacerbating the underlying causes of terrorism generally,[39] and economic matters were often discussed as being intrinsic to terrorism preparedness and/or the consequences of terrorism.[40] Consequently, although terrorism was one of many topics discussed in these communications, the environmental and economic concerns that were concurrently addressed were central to framing and understanding the threat and likely consequences of terrorism. As such, tangentially related policy matters were pivotal to many discussions of terrorism targeting the US and thus were not excluded from the compiled dataset. It should be noted however that the inclusion of additional material beyond these related concerns may lead to potential measurement error, loss of efficiency, and Type II errors. However, delineating between relevant and irrelevant issues related to terrorism within each communication would be both subjective and resource intensive, given the size of the dataset. Thus this dissertation elected to retain the entire transcript of each of the 6,001 communications.

As presidential communications may have a differential impact when they introduce policy initiatives, these instances were also coded to enable a variety of sensitivity analyses. Drawing upon the independent codes produced by the APP, the following communication categories were coded as policy initiatives: statements of

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[39] "We have to understand the urgency and magnitude of this environmental issue as a global crisis. We have to work to stop famine and stabilize population growth and prevent further environmental degradation. If we fail, these problems will cause terrorism, tension, and war" (Clinton, 1994).
[40] "And if a terrorist threat—if terrorism is a threat to the supply of our energy supply, then I believe it makes sense to address that terrorist threat by doubling the size of the Strategic Petroleum Reserve, so that rather than 750 million gallons of crude oil in storage, in case there's a disruption based upon a terrorist threat, there's a billion-five. In other words, if we're saying dependence on oil creates a terrorist threat, let's do something about it now. Let's say that if the threat does come, there's enough crude oil in storage to be able to deal with the short-term economic consequences of an attack" (Bush II, 2007).

administration policy, executive orders, veto messages, veto signings, bill signings, memoranda, and signing statements. Importantly, these communications capture the public introduction of major US counterterrorism policies. While the data compiled for the following analysis do not include the implementation of overt and covert counterterrorism initiatives, these public introductions mark official transitions in US counterterrorism policy, and unlike covert actions, engage with the political dimensions of terrorism. Thus, while it would be ideal to also include these counterterrorism actions in the models, many of the key counterterrorism actions are included in these documents. The consequences of these omissions are further discussed in Chapter 7.

Sentiment of Communications

This dissertation analyzes the sentiment of presidential communications regarding terrorism as another set of primary independent variables. In order to minimize subjectivity and allow replication, a sentiment analysis software package, Sentiment Analysis Online (2016), was obtained to measure sentiment. As discussed in Chapter 3, sentiment analysis software has been developed in order to systematically record and analyze "opinions, sentiments, evaluations, appraisals, attitudes, and emotions towards entities such as products, services, organizations, individuals, issues, events, topics, and their attributes" (Liu, 2012: 7). At the time of writing, a number of openly available packages for measuring sentiment on a number of different scales were available, but most automatically coded all language describing terrorism as negative, making them inadequate for the present research purposes. Sentiment Analysis Online (2016) allows users to set a topic as neutral, so that the sentiment calculation would extract deviations in sentiment beyond the baseline discussion of terrorism. This specific program has been

used by numerous other studies to examine sentiment analysis and to operationalize the tone of texts (see Barna and Dugan, 2016; Elhenfnawy et al., 2016; Fisher and Dugan, 2017; Teh et al. 2015; Teh et al. 2016).

Sentiment Analysis Online provides quantitative scores of the sentiment contained in a body of text; ranging from -1 if the sentiment is "very bad", to 1 if the sentiment is "very good" (Sentiment Analysis Online, 2016: 1). With the month as the unit of analysis in this dissertation, this analytic approach provided the opportunity to summarize the monthly sentiment in a variety of strategic ways. These alternative measurement strategies are used to reveal different elements of the relationship between presidential communications and terrorism targeting the US. Public communications in concert with one another can prime the audience, provide political framing, or set broader agendas (Scheufele, 2000). As such, this dissertation combines the insights from multiple measurement strategies (frequency, net sentiment frequency, average, and net sentiment), to provide better policy direction. As such, the following five different measurement strategies are used to elucidate the impact of these communications.

The first strategy measures the monthly frequency of presidential communications concerning terrorism to evaluate the attention and acknowledgement hypotheses.[41] This measurement strategy represents the strictest set of theoretical assumptions by treating all communications as equal in their ability to impact terrorism in the following month. This initial perspective provides a baseline for understanding the additional value that can be gained from including mediating factors and the sentiment of communications.

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[41] Hypothesis 1a: The number of speech acts by a government will increase subsequent terrorism (attention). Hypothesis 1b:The number of speech acts by a government will decrease subsequent terrorism (acknowledgement).

Sensitivity analyses are also conducted in order to investigate whether they are delivered by the president or a press secretary, and whether they are introducing a policy initiative.

The remaining four measurement strategies incorporate the sentiment of presidential communications and are used to test hypotheses 2-4. The frequency of conciliatory or repressive monthly government actions can have a cumulative impact or need to reach a certain a threshold in order to impact subsequent terrorism, as Dugan and Chenoweth (2012) demonstrate in their investigation of Israeli government actions on Palestinian terrorism. In order to provide results that engage with Dugan and Chenoweth's (2012) findings, the second analytic approach investigates whether the monthly frequency of positive and negative presidential communications regarding terrorism affects subsequent terrorism. For the purposes of this dissertation, a communication was coded as positive if its sentiment score was greater than 0 and negative if its sentiment score was less than 0. Both of these frequencies were included these models.

The number of positive and negative statements may also be an important aspect of presidential communications. Assuming that all positive and negative communications hold equal value, this strategy aims to assess whether the net sentiment expressed by presidents and their press secretaries by subtracting the monthly frequency of negative communications from that of positive communications (net sentiment frequency). While considered, it was not viable to examine the ratio of positive to negative communications due to the existence of months with no positive communications, no negative communications, or no communications concerning terrorism whatsoever. This net frequency was also selected for its ability to distinguish months with a high number of

one type of communication from months that had relatively few but consistent communications.

Capitalizing on sentiment analysis software's ability to detect subtle differences in sentiment, this dissertation also assesses the effect of the average monthly sentiment score, and the monthly sum of sentiment scores on subsequent terrorism. The average monthly sentiment score is used to indicate one form of overall tone, and the net monthly sentiment scores was used to indicate the cumulative monthly impact or prominence of terrorism communications. Each measurement method is used to highlight different elements of broader presidential communications strategies. Viewing all of these findings together, this approach is designed to produce a number of insights into specific communications strategies that would yield the greatest counterterrorism benefits. For example, if increases in the count of negative public communications is related to decreases in terrorism in the following month, but a negative relationship between the sum of sentiment scores and subsequent terrorism is also observed, then this would suggest that to minimize terrorism, governments should use frequent presidential communications that are only slightly negative in nature.

Moderating Variables

In addition to these key independent variables, the following analyses include moderating and control variables. The moderating variables that were selected pertain to the *presidential approval rating*. In order to produce interpretable findings, presidential approval rating was operationalized as a series of dummy variable that distinguish between months where the president had higher than average approval ratings, and when presidential was in the lowest quartile, the highest quartile, the lowest decile, and the

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highest decile. Each of these operationalization strategies is tested to determine if findings are sensitive to other cut points, and these multiple strategies are used to more systematically determine where any meaningful differences may exist for the hypothesized moderating relationship.

Presidential Administration

In order to test Hypothesis 3, each of the aforementioned models are also run separately for each administration. Despite the low sample sizes for some administrations, particularly Ford who was only in office for 30 months, these models are determined to have sufficient statistical power to be able to detect statistically significant impacts of presidential communications on terrorism.

Presidential Approval Rating

Central to Hypothesis 4, presidential favorability can also moderate the impact of presidential communications. Data from Gallup's presidential approval polls were obtained (Gallup Analytics, 2017) to measure presidential favorability. These polls maintained the same questioning throughout the entire study period and specifically asked the question, "Do you approve or disapprove of the way [first & last name] is handling his job as President?" These data consist of 3,101 separate polls and presented a consistent means for measuring US presidential favorability among the US public.

These Gallup polls each surveyed approximately 15,000 US adults aged 18 and older living in all 50 US states as well as the District of Columbia (Gallup Analytics, 2017). Across all of the years that were included in the following analyses, Gallup employed a phone-based data collection method that included both landlines and

cellphones (Gallup Analytics, 2017). When a landline telephone number was contacted, a participant was selected at random for inclusion in the sample based on which adult member of the household had the next upcoming birthday (Gallup Analytics, 2017). In order to ensure that the sample was not dependent on proficiency in English, polling interviews were also available in Spanish for respondents who were primarily Spanish speaking (Gallup Analytics, 2017).

It should also be noted that the final favorability estimates generated by Gallup are subject to a variety of sampling quotas. In order to adjust for reduced landline usage in the US, more recent polls have included a minimum quota of 60% cellphone respondents (Gallup Analytics, 2017). Gallup also included additional minimum quotas based on the time zone and region of respondents in order to increase each sample's representation of the US populace at the time (Gallup Analytics, 2017). To account for these sampling procedures, Gallup employed a variety of weights to adjust the estimates for nonresponse, unequal selection probability, and double coverage of landline and cellphone users in the two sampling frames (Gallup Analytics, 2017). Gallup also weighted its final samples to match the US population according to gender, age, race, Hispanic ethnicity, education, region, and population density (Gallup Analytics, 2017). Only the post-weighting estimates are publicly available, and these were collected for use in subsequent analyses.

Many times between 1970 and 2014, Gallup conducted multiple presidential favorability surveys per month. To obtain a monthly measurement in these instances, these multiple counts were averaged for both presidential approval and disapproval rates. There were also periods of time during which Gallup did not conduct any polls on

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presidential favorability, many of which were due to the organization suspending polling due to major ecological events such as the effects of Hurricane Sandy in 2012. For the 28 individual months between January 1970 and December 2014 during which no Gallup presidential polls were conducted, linear interpolations were used to impute these missing data. Sensitivity analyses are also conducted to identify whether these interpolated values had any impacts on the substantive findings of each model.

Control Variables

Both the incidence of terrorism and presidential communications concerning terrorism were also likely influenced by the occurrence of previous acts of terrorism. As such, this dissertation also collected data measuring the count of terrorist attacks occurring over four previous months to control for this influence. By controlling for the potential impacts from earlier attacks in this manner, the estimated relationship between presidential public communications concerning terrorism and subsequent terrorist attacks was less distorted (Dugan and Chenoweth, 2012). This concordantly enables the following analysis to better isolate any effects of presidential communications on terrorist attacks occurring in the following month.

As a lower proportion of successful attacks may indicate a lower likelihood of future success, all models include the proportion of successful attacks occurring in the previous month. Within the GTD, an attack is recorded as successful if it achieves the tangible effects intended by that particular method (START, 2016). While this does not mean that the attack necessarily achieved the goals of the terrorist organization, it indicates that a bomb actually exploded or an assassination attempt succeeded at killing the intended target. In cases where multiple methods were used, the GTD recorded these

attacks as successful if any of the methods used achieved their tangible effects (START, 2016).

In order to control for civil unrest in the US, data were gathered from the Social, Political, and Economic Event Database (SPEED). This database contains event data capturing events of civil unrest and covers the years between 1946 and 2005, and was compiled from the digitized historical archives of the New York Times and Wall Street Journal as well as two intelligence agency news services: the Summary of World Broadcasts (UK) and the Foreign Broadcast Information Service (US) (Hayes and Nardulli, 2011). For the purposes of this dissertation, data were collected for the 2,437 political expression events contained within this database.[42] To avoid double events that were considered by the GTD to be terrorism, all events that were judged to be politically motivated attacks by SPEED were omitted from the civil unrest variable.[43] Unfortunately as these data do not cover the entire temporal window examined by this dissertation, the potential influence of civil unrest can only be viewed for the first seven presidencies (excludes the Obama Administration and the final 3 years of the Bush II Administration). As such, these control variables are only used within sensitivity analyses for hypothesis 3 and this dissertation highlights that these sensitivity analyses may not be generalizable beyond the period they are measured for.

As presented in Chapter 4, different administrations placed varied importance on terrorism in comparison to other policy domains. To account for this relative importance,

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[42] Political expression events were defined as: "the public articulation, by non-governmental actors, of threatening or unwelcome political messages" (Hayes and Nardulli, 2013: 2).
[43] Politically motivated attacks were defined as: "physical acts, perpetrated by humans for political reasons, which are intended to damage the person or property of others" (Hayes and Nardulli, 2013: 2).

the following models also control for the proportion of presidential communications in the prior month that mentioned terrorism, calculated by dividing the monthly count of communications concerning terrorism by the total number of communications (both obtained from the American Presidency Project). In addition, the data collection period for the GTD was included as outlined previously.

The length of time a president had been in office (tenure) is also included as a control variable in all models to account for their experience and exposure in this office.

Operationalization

Below is a table that provides the operational definitions and sources for all variables contained within the subsequent analysis.

Table 5.1:   List of variables, their operationalization, and their sources

Variable	**Operational Definition**	**Source**
Frequency of Terrorism	Frequency of terrorist attacks in each month.	GTD
Killed by Terrorism	The number of confirmed fatalities from terrorism in each month including all victims and attackers.	GTD
Terrorism Communications	The frequency of presidential and press secretary communications that contain the word terrorism.	APP
Policy Communications	The frequency of presidential and press secretary communications that contain the word terrorism that introduced policy initiatives.	APP
Frequency of Positive Sentiment Statements	The count of Terrorism Communications with sentiment scores greater than 0.	APP and SAO

Frequency of Negative Sentiment Statements	The count of Terrorism Communications with sentiment scores less than 0.	APP and SAO
Net Frequency of Sentiment Statements	The count of Terrorism Communications with sentiment scores greater than 0 minus the count of Terrorism Communications with sentiment scores less than 0.	APP and SAO
Average Sentiment Score	The average sentiment score for Terrorism Communications in the previous month.	APP and SAO
Net Sentiment Score	The summation of all sentiment scores for Terrorism Communications in the previous month.	APP and SAO
Presidential Administration	A set of dummy variables differentiating each presidential administration.	APP
Previous Focus on Terrorism	The proportion of Terrorism Communications in the previous month.	APP
Tenure in Office	The count of the president's months in office prior to the current month.	APP
Approval Rating	The proportion of US citizens who reported that they approved of the way that the current president was is handling their job as President.	Gallup
Disapproval Rating	The proportion of US citizens who reported that they disapproved of the way that the current president was is handling their job as President.	Gallup
Successful Attacks	The proportion of successful attacks in the previous month.	GTD
Civil Unrest	The monthly frequency of political expression events that are the public articulation, by non-governmental actors, of threatening or unwelcome political messages.	SPEED
GTD Collection Period	A set of dummy variables differentiating each GTD collection Period.	GTD

Analysis

The previous chapters have identified a number of attributes that an analytic

model should include in order to test the four hypotheses identified by this dissertation.

Firstly, for the main impact of presidential communication on terrorism, a lag of one

month should be included in order to account for the necessary planning and implementation time required by terrorist attacks (Nesser, 2008). Presidential communications are also subject to a variety of political influences, including the previous incidence of terrorism and the success of previous attacks. In addition, presidential communications may also be a function of previous communications as part of an ongoing policy approach. Each of these factors may also both direct impact on terrorism and indirect effects through communications, and should therefore be accounted for in a modeling strategy. Consequently, due to the need to estimate these multiple and specific autoregressive requirements across multiple time periods simultaneously, the modeling strategy requires a quantitative method that is flexible enough to meet all of these requirements. The methodology should also impose correct and specific temporal ordering for all variables, and mutually estimate the effects of communication on terrorism and terrorism on communication.

To analyze these data and account for all of these empirically theoretically derived factors, this dissertation uses structural equation modeling (SEM). A structural equation model is a theoretically derived and hypothesized pattern of directional and non-directional linear relationships that include a set of measured and latent variables (MacCallum and Austin, 2000). Unlike traditional regression analyses, SEMs assume probabilistic causality rather than deterministic causality, allowing for changes to occur in outcomes based upon probability (Kline, 2016). The purpose of SEMs is thus to account for both variation and co-variation of the measured variables, and these models allow for the specification of the directionality structure of relationships within a model (Hayduk, et al., 2007; Kline, 2016). Addressing the previous concerns, the flexibility and

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structure within these models also allow SEMs to include autoregressive influences (Gollob & Reichardt 1991). As this dissertation has highlighted that terrorism and communications are likely both influenced by previous terrorism and affect future terrorism, this feature further renders SEM as an analytic strategy that is able to account for all of the influences highlighted by this dissertation across multiple units of time simultaneously (Maxwell, Cole, and Mitchell, 2011).

Model specification is crucial within SEM, as even theoretically meaningless models may be shown to have statistical value (Millsap, 2007). Although prominent scholars traditionally advocate for a single primary model, due to the multifaceted nature of public communications and their potential impact(s) on terrorism, this dissertation argues that multiple models will reveal important insights, particularly through disconfirming hypotheses (Bollen, 1989). As multiple measurement strategies are required to better understand the potentially nuanced impact terrorism communications may have on subsequent terrorism, the broad models that are used to test each hypothesis are structurally similar as demonstrated through diagrams below. In order to ensure correct temporal ordering, every independent variable was measured in the month prior to the variable it is predicting. The only exception is lagged terrorism (discussed in greater detail below), which was measured for the four sequential months preceding the outcome.

Descriptive Statistics

Prior to formally testing the hypotheses, a descriptive analysis of the major dependent and independent variables is also conducted in order to document the distribution of each variable and discusses implications for the existing literature or the forthcoming analysis.

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Testing the Hypotheses

This dissertation uses SEM to evaluate the relationship between presidential communications and subsequent terrorism. Although a variety of sensitivity analyses are examined, three broad SEM models are used to test the four hypotheses. These broad models are displayed in Figures 5.1-5.3 below. Beginning with the model that was designed to test Hypothesis 1,[44] Figure 5.1 highlights that the primary relationship of interest (represented by the thicker line) linked Presidential Terrorism Communications (Count) to Terrorism (Count). This one-month lag between the primary independent variable and the dependent variable is consistent across all models. For parsimony, the primary control variables for the GTD collection period and the control variables for sensitivity analyses such as civil unrest have been omitted from these figures. Additionally, for each of the following models (Figures 5.1-5.3), all predicted count variables are estimated using the negative binomial distribution.

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[44] Hypothesis 1a: The number of speech acts by a government will increase subsequent terrorism (attention). Hypothesis 1b: The number of speech acts by a government will decrease subsequent terrorism (acknowledgement).
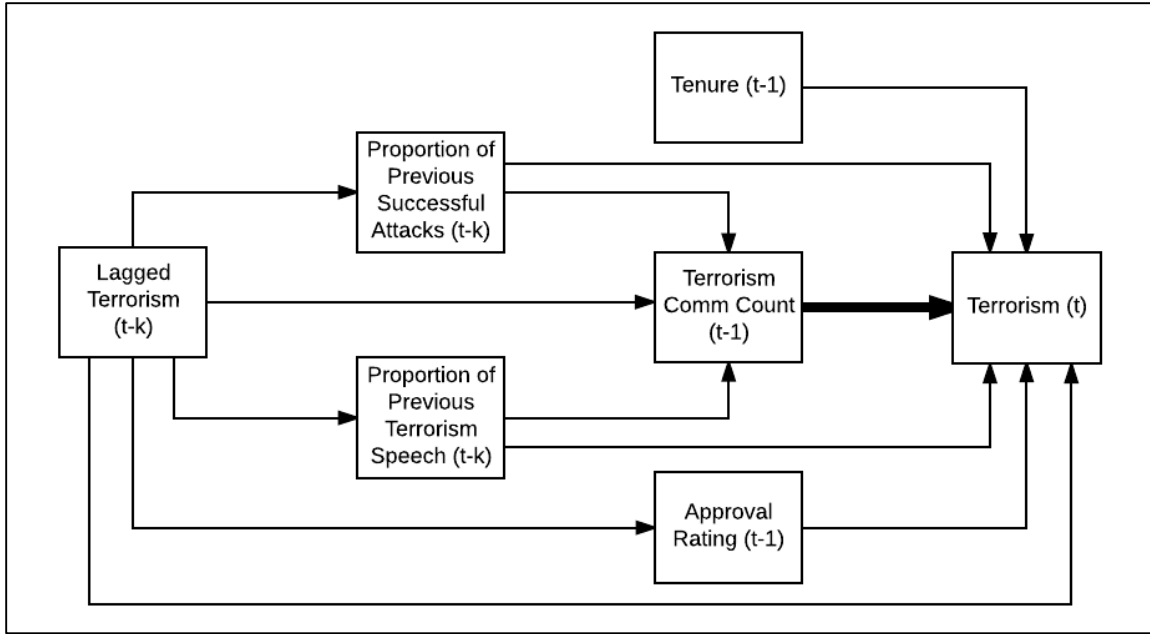
Figure 5.1: Baseline model for testing Hypothesis 1

In addition to this primary relationship, the impact of time in office (tenure), the proportion of successful attacks in the prior month, the presidential attention paid to terrorism in the previous month (proportion of previous terrorism communications), the president's approval rating in the previous month, and the count of terrorism in a number of preceding months were also estimated. Taking advantage of the ability of SEM to model autoregressive influences, this study also estimates the effect of previous terrorism (t-2 and greater) on terrorism communications (t-1), simultaneously with the primary relationship (terrorism communications at t-1 on terrorism at t), as displayed in Figure 5.1. In addition, this model was used to estimate the affect of previous terrorism (t-2 and greater) on the proportion of successful attacks (t-1), the presidential attention paid to terrorism (t-1), and the president's approval rating (t-1).

Turning to Hypothesis 2,[45] Figure 5.2 displays the augmented model that is used

to estimate the effects of the sentiment of terrorism communications on terrorism in the

following month. The majority of this SEM is identical to that shown in Figure 8, with

two major differences. First, the primary relationships of interest are now the monthly

count of positive sentiment terrorism communications (t-1) and the monthly count of

negative sentiment terrorism communications (t-1) on the count of terrorism (t).

Secondly, the count of negative and positive terrorism communications at t-2 are also

included in order to account for the previous sentiment of terrorism communications on

the primary independent variables measured at t-1.
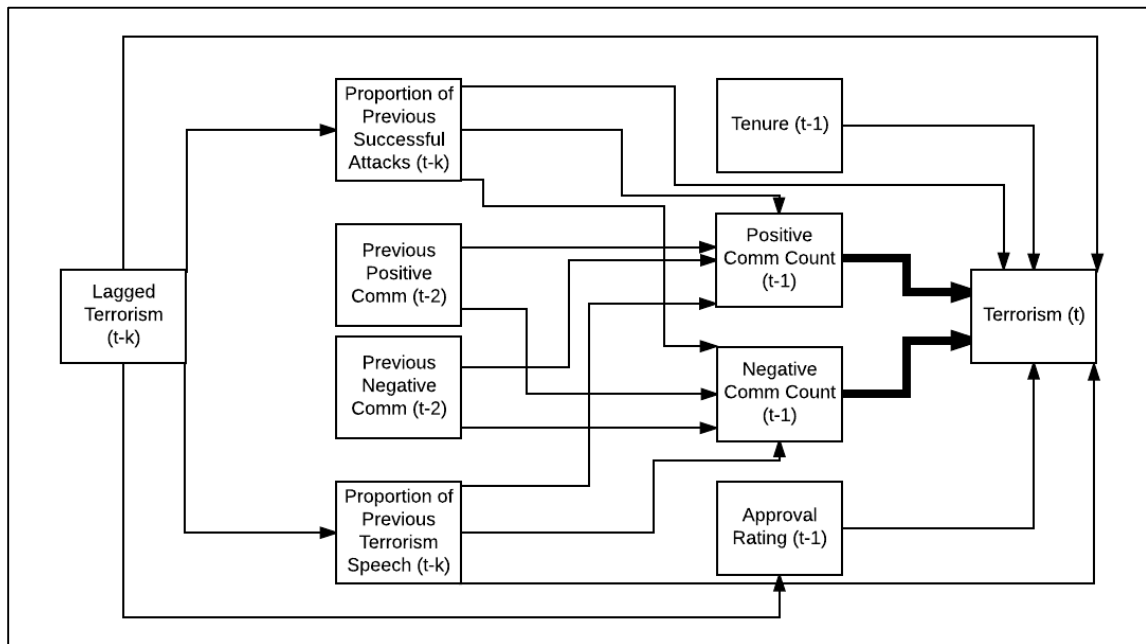
Figure 5.2: Baseline model for testing Hypothesis 2 (count)

As mentioned above, the average, sum, and net sentiment frequency may also

affect terrorism in the following month, the models expressed in Figures 5.1 and 5.2 are

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[45] Hypothesis 2a: Negative speech will be related to decreases in subsequent terrorism (deterrence)
Hypothesis 2b: Negative speech will be related to increases in subsequent terrorism (backlash)
Hypothesis 2c: Positive speech will be related to decreases in subsequent terrorism (placation)
Hypothesis 2d: Positive speech will be related to increases in subsequent terrorism (display of weakness)

amended for these continuous primary independent variables. Similarly to Figure 5.2, Figure 5.3 also models the impact of the previous sentiment of terrorism communications (t-2) on terrorism communications at t-1.
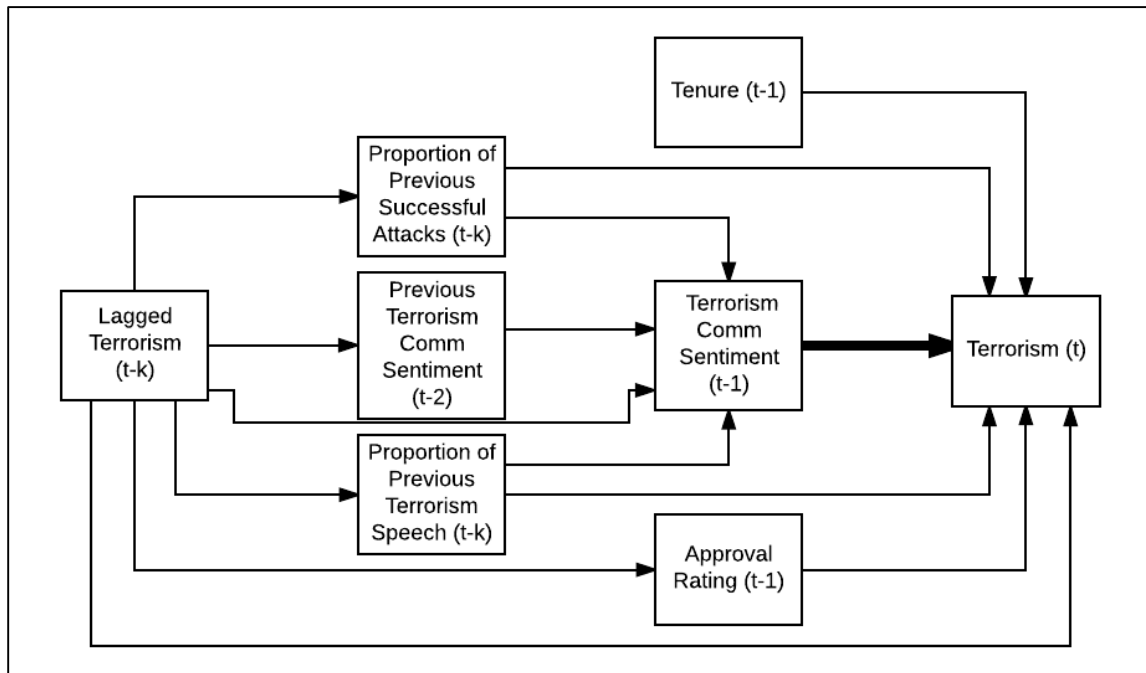
Figure 5.3: Baseline model for testing Hypothesis 2 (average, sum, and difference)

The three structural models displayed above (Figures 5.1-5.3) are also used separately for data from each administration in order to test Hypothesis 3.[46]

Turning finally to hypothesis 4,[47] the models expressed in Figures 5.1-5.3 are first used to examine whether presidential approval ratings have a direct impact on terrorism targeting the US. To investigate this relationship directly a variety of moderation models are also used to examine whether the impact of terrorism communications is conditioned

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[46] Hypothesis 3: The relationship between Presidential speech and subsequent terrorism will vary across administrations.

[47] Hypothesis 4: As public support becomes increasingly favorable or unfavorable (absolute value increases), the impact of presidential speech on subsequent terrorism will increase (clarity of the political situation/unity).

by presidential approval using the same modeling framework expressed above. The dissertation began by amending the first model diagramed above (Figure 5.1) with approval rating acting as a moderating variable for the relationship(s) between the key independent variable(s) and the count of terrorism in the following month. An example of this can be seen below in Figure 11 that presents approval rating (t-1) as a moderating variable between the count of terrorism communications (t-1) and terrorism (t).
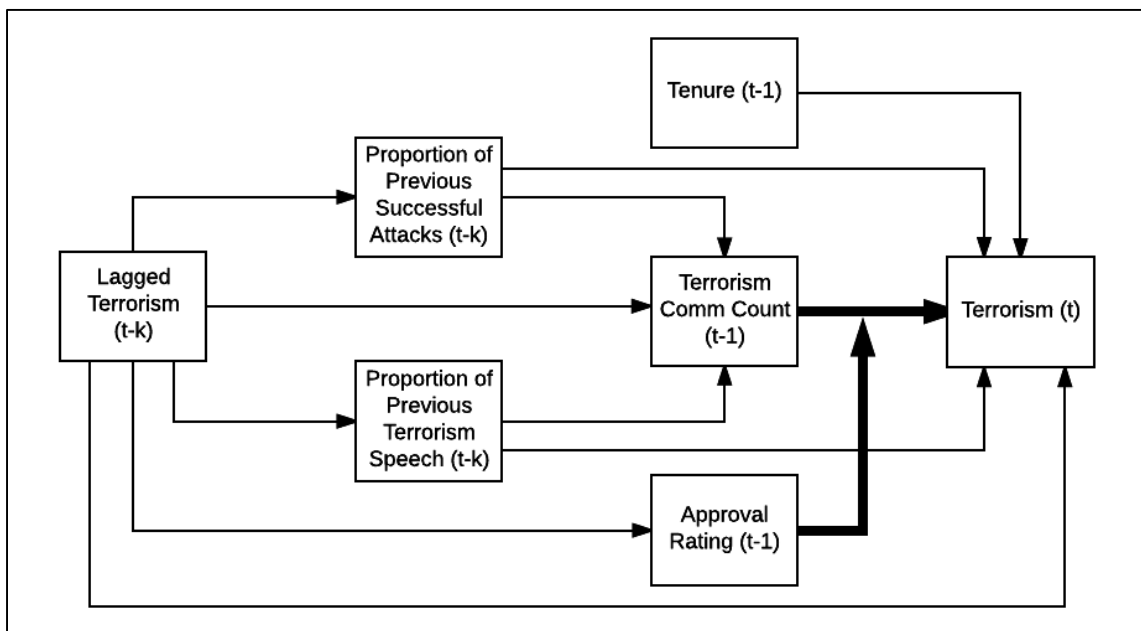
Figure 5.4: Model for testing Hypothesis 4

Chapter 6: Results

This chapter presents the results for the primary models outlined in Chapter Five and a range of sensitivity analyses that were designed to test each of the four hypotheses. It first begins with a summary of the descriptive statistics for terrorism, presidential communications regarding terrorism, and the mediating and control variables that are included in the primary analyses.

Description of Terrorism

According to the GTD, there were 5,359 terrorist attacks that targeted the US between January 1970 and December 2014. This figure does exclude attacks from 1993, as noted previously. Excluding this one-year period, only seven additional months were recorded as not having a terrorist incident that targeted the US (1.33%). As Figure 6.1 shows, the monthly frequency of terrorist attacks had notable peaks in 1970, 1977, and 1990. Notwithstanding these peaks, Figure 6.1 also indicates a broadly negative trend in the incidence of terrorism targeting the US between 1970 and 2014 ($\hat{\beta}$=-0.032, p<0.001). Looking at each presidency separately, the Nixon administration experienced the highest average monthly frequency of terrorist attacks, at 21.272. The Ford administration experienced the second highest monthly frequency of terrorist attacks, with 17.133 attacks per month, however this reduction was not statistically significant (t=-1.257, p=0.213). All other presidencies experienced statistically significantly less terrorism per month in comparison to the Nixon administration; Carter ($\bar{x}$=12.532, t=-3.276, p=0.001), Reagan ($\bar{x}$=10.177, t=-5.8695, p<0.001), Bush I ($\bar{x}$=14.104, t=-2.593, p=0.01), Clinton ($\bar{x}$=7.560, t=-6.950, p<0.001), Bush II ($\bar{x}$=6.255, t=-7.607, p<0.001), and Obama ($\bar{x}$=3.090, t=-8.563, p<0.001). Across each of the eight administrations, only the Bush I

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administration saw an increase in the average monthly frequency of terrorism from the previous administration, Reagan's (t=3.366, p=0.01). All other administrations experienced significantly less terrorism (p≤0.05) than the preceding administration; Carter (t=-2.967, p=0.04), Reagan (t=-2.355, p=0.020), Clinton (t=-5.669, p<0.001), Bush II (t=-1.961, p=0.05), Obama (t=-5.486, p<0.001).
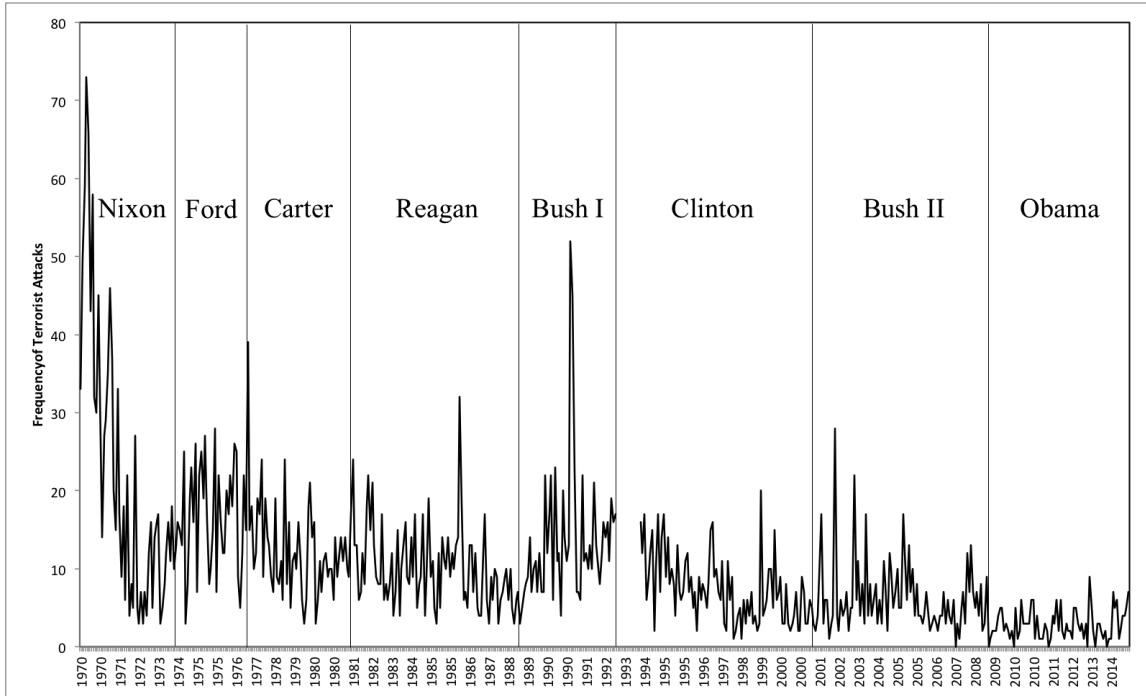
Figure 6.1: Monthly frequency of terrorism targeting US (1970-2014)

Of the 5,359 attacks that targeted the US during this period, 2,646 occurred on US soil (49.5%). Similarly to the frequency of overall terrorist attacks, the average monthly frequency of terrorist attacks occurring on US soil also reduced in nearly every subsequent administration. As demonstrated by the white bars in Figure 6.2 below, only the Clinton administration experienced numerically more domestic terrorism than the previous presidency.

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A different trend emerges when examining the *proportion* of domestic terrorist attacks targeting the US. The highest proportion of domestic terrorist attacks occurred during the Nixon administration, with 66.8% of attacks occurring in the US, followed by Ford (60.3%), Carter (57.9%), Clinton (48.4%), Reagan (43.0%), Obama (38.4%), Bush II (28.1%), and Bush I (23.8%). These divergent trends suggest that there may have been divergent patterns of domestic and international terrorism targeting the US during the Bush I and Clinton administrations.
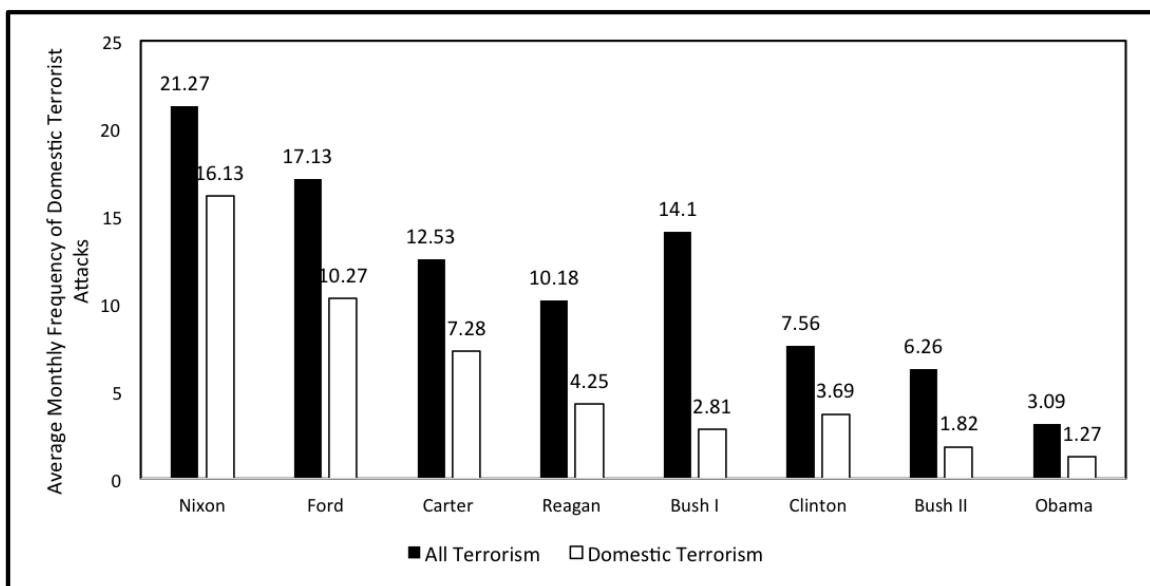
Figure 6.2: Average monthly frequency of domestic terrorism targeting US (1970-2014)

The second dependent variable used to test the four hypotheses is the monthly number of individuals killed by terrorism. Figure 6.3 below presents two graphs displaying the number of people killed in each month between 1970 and 2014, one including the September 11th attacks (left) and one excluding the September 11th attacks (right). Out of the 6,317 people killed by terrorist attacks targeting the US, 2,983 are attributable to the September 11th, 2001 attacks (47.2%). Including these events, across the 45-year period between 1970 and 2014, an average of 11.96 people were killed per month in terrorist attacks. Unsurprisingly, Bush II had the highest monthly average of

terrorist fatalities ($\bar{x}$=43.51), followed by Reagan ($\bar{x}$=8.94), Clinton ($\bar{x}$=7.04), Ford

($\bar{x}$=4.67), Obama ($\bar{x}$=3.64), Nixon ($\bar{x}$=3.27), Bush I ($\bar{x}$=2.56), and Carter ($\bar{x}$=1.96). In

contrast to the incidence of terrorism, which exhibited an overall downward trend, no

overall temporal trend was observable for the monthly number of people killed in

terrorist attacks targeting the US ($\hat{\beta}$=0.036, p=0.338). Taken together, these conditional

averages and the absence of an overall temporal trend suggest that trends in the lethality

exhibit a different pattern than the incidence of terrorist attacks that targeted the US.

However, upon removing the data from September 2001 (graph 2 in Figure 6.3), the

monthly variation in the number of people killed in terrorist attacks can be more clearly

seen with the re-scaled y-axis. Excluding the events of September 2001, 3,334 people

were killed in terrorist attacks targeting the US ($\bar{x}$=6.33 per month). The exclusion of this

month also reduced the average number of monthly fatalities during the Bush II

administration from 43.51 to 11.90. As such, notwithstanding the September 11th, 2001

attacks, Bush II still experienced more fatalities than any other administration. This

difference was not statistically significant, however, compared to the administration with

the next higher average number of fatalities, Reagan (t=0.688, p=0.492). Finally, it

should also be noted that there were no fatalities due to terrorism in 154 out of the 528

months observed by this dissertation (29.17%).
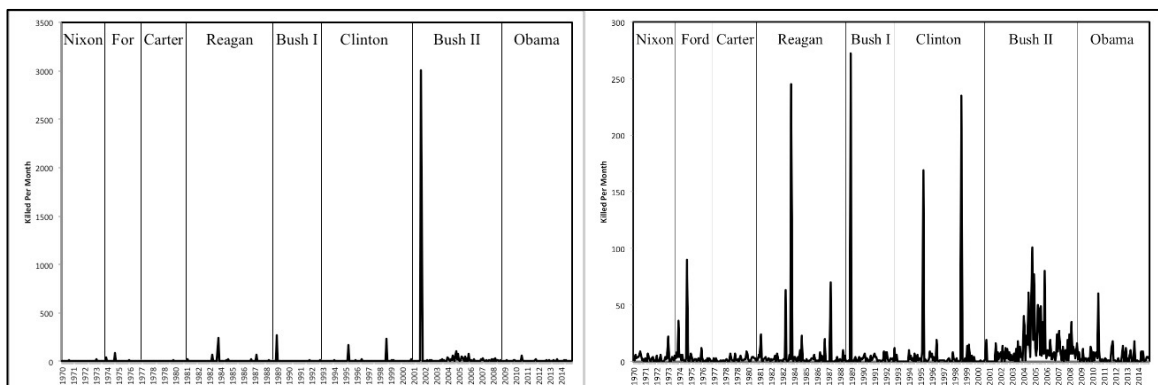
Figure 6.3: Monthly frequency of individuals killed in terrorist attacks including the September 11th attacks (left) and excluding the September 11th attacks (right) (1970-2014)

Description of Public Communications

This section presents descriptions of the variables used to measure presidential communications relevant to terrorism. Figure 6.4 displays the monthly frequency of total terrorism communications, as indicated by the dotted black line (president and press secretary combined), and the monthly frequency of communications from the president alone (solid black line). Focusing firstly upon the monthly frequency of all terrorism communications, Figure 6.4 displays that they increased markedly under the presidencies of Clinton, Bush II, and Obama. Contrasted with the incidence of terrorism discussed above and in Figure 6.1, Figure 6.4 indicates that that count of terrorism communications was relatively low when terrorism was at its highest under Nixon, and it peaked following the September 11th attacks in 2001 under Bush II.
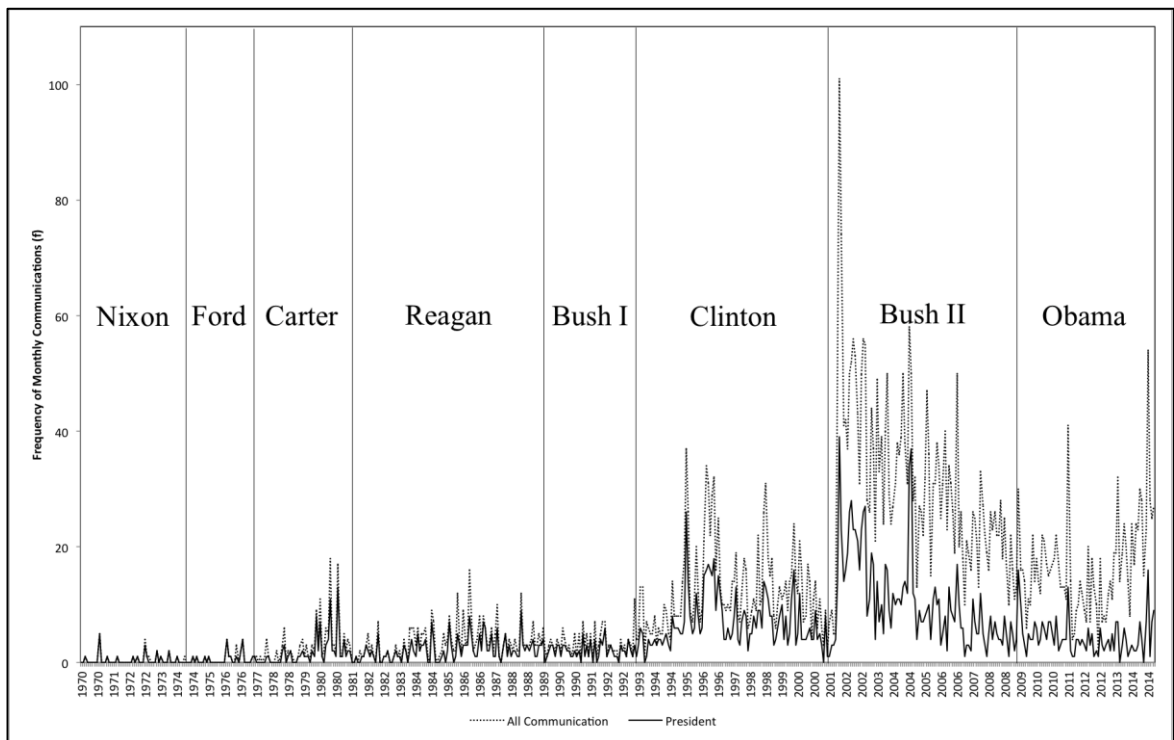
Figure 6.4: Number of terrorism communications per year (1970-2014)

It is also evident that under the Clinton administration, the press secretary began

to be used more frequently in order to convey presidential messages regarding terrorism,

as indicated by the distance between the solid and dotted lines in Figure 6.4. Particularly

under Bush II, the press secretary was responsible for delivering a large number of these

communications. Indeed, of the average 2,942 terrorism communications delivered under

the Bush II administration, 1,935 were delivered by press secretaries. As shown in Figure

6.5 below, the proportion of terrorism communications delivered by the press secretary

peaked under the Obama administration (72.6%). Each president, with the sole exception

of Ford, had at least one month where a press secretary delivered *all* terrorism

communications, further demonstrating the importance of the press secretary for

delivering these messages.
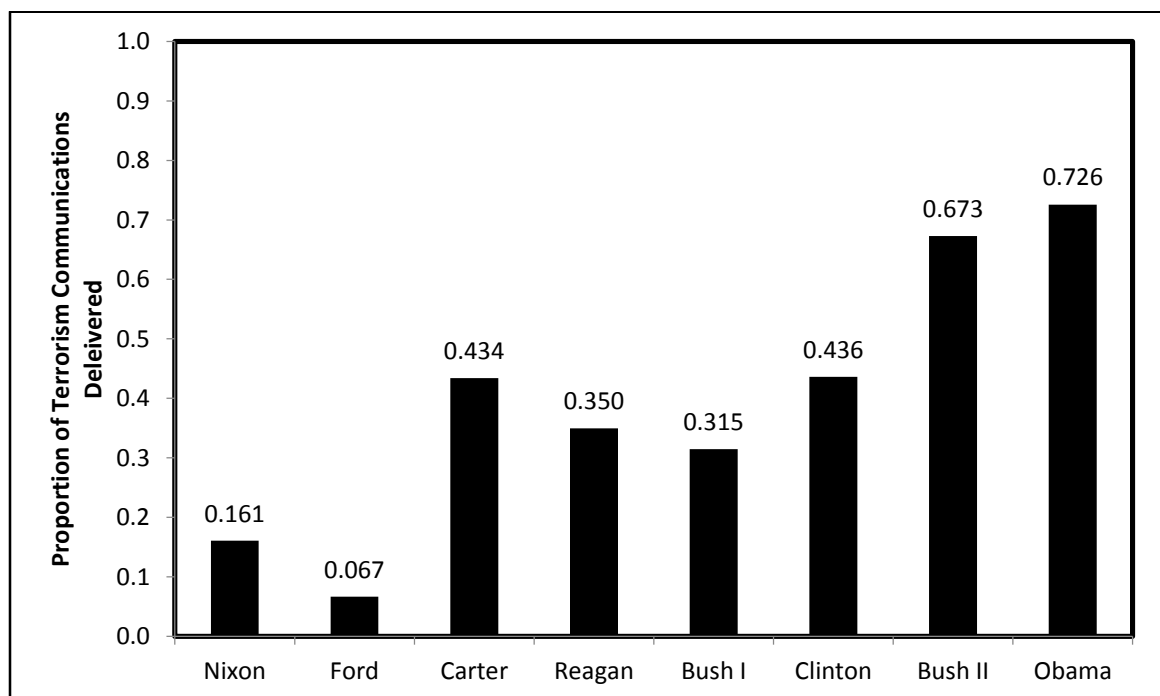
Figure 6.5: Proportion of terrorism communications delivered by press secretaries across each administration

Using the sentiment scores that were generated for each terrorism communication,

Figure 6.6 shows the monthly frequency of presidential communications with a positive

sentiment (sentiment score >0, marked by a solid line) and a negative sentiment

(sentiment score <0, marked by the dotted line). Each president had terrorism

communications with a positive sentiment, but for all presidents the modal

communication was negative in sentiment. Interestingly, Figure 6.6 also indicates that

positive and negative sentiment messages were frequently used within the same month,

indicating that presidents and their press secretaries may have employed different

communications strategies within relatively small temporal windows. The Clinton

administration had the greatest proportion of communications with a negative sentiment

(0.771), followed by Nixon (0.714), Ford (0.692), Obama (0.662), Bush II (0.638),

Reagan (0.633), Carter (0.628), and Bush I (0.545). As such, the majority of terrorism

messages across all presidential administrations conveyed a negative sentiment.
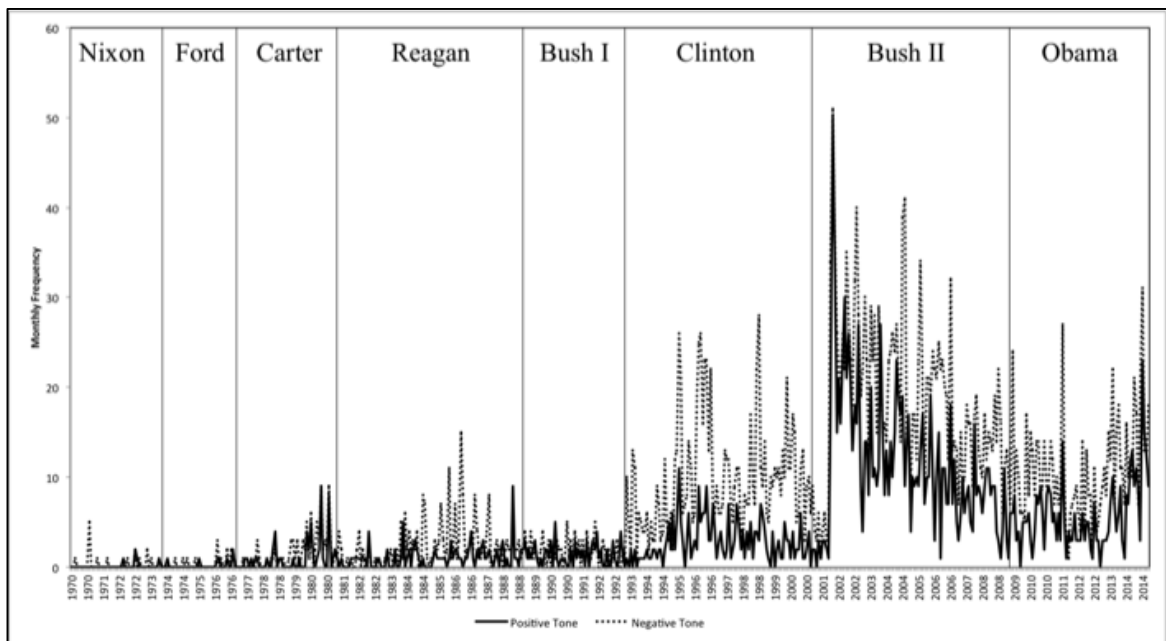
Figure 6.6: Count of positive and negative terrorism communications per year (1970-2014)

When the monthly frequency of negative presidential communications was subtracted from the frequency of positive communications to calculate the net sentiment frequency, the average net sentiment was also negative ($\bar{x}$=-3.581, see Figure 6.7 below). Across all months, the average number of positive communications was 3.765 and the average number of negative communications was 7.346. Again demonstrating important variation in the monthly messages, this net sentiment frequency demonstrated that each president had multiple months where the net value was positive. Across the entire study period, 68 months had a positive net frequency, representing 12.6% of all months. The Bush II administration had both the highest net frequency value of terrorism communications, at eight in April 2002 (30 out of 52 communications were positive in sentiment), as well as the lowest net frequency value, at 32 in October 2004 (41 out of 50 communications were negative in sentiment). The Bush I administration had the greatest proportion of months with a positive net sentiment frequency value (0.354), followed by Carter (0.213), Reagan (0.177), Obama (0.069), Ford (0.067), Nixon (0.545), Bush II (0.052), and Clinton (0.042).
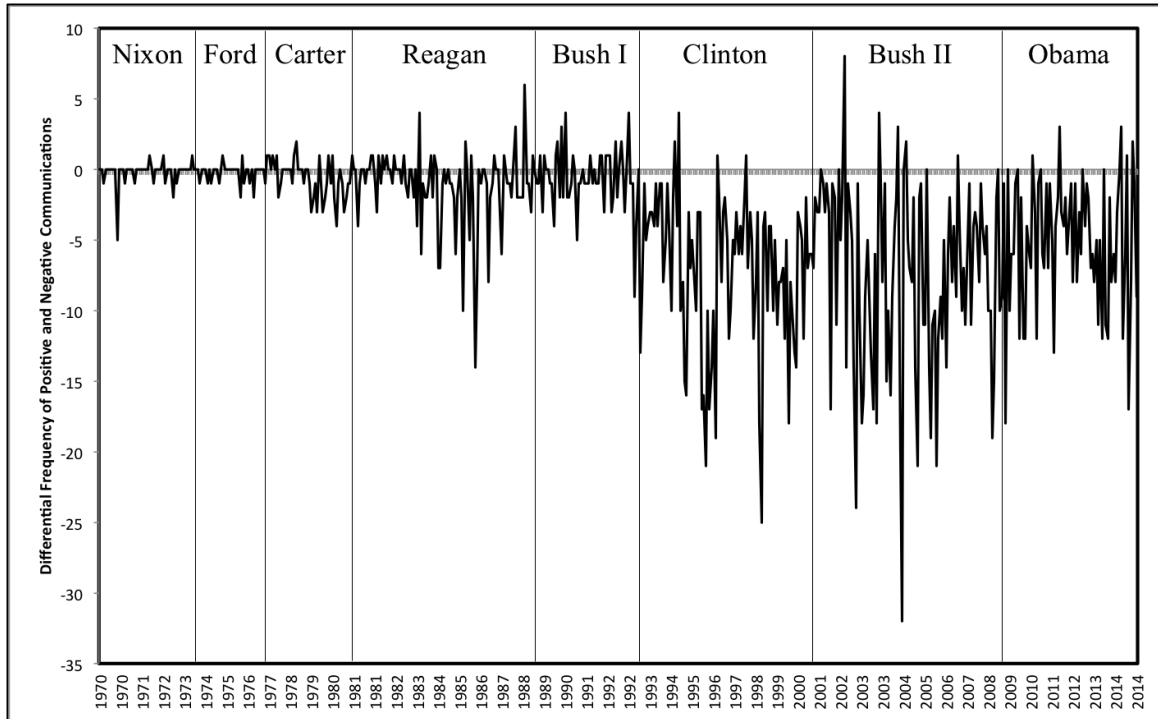
Figure 6.7: Frequency of positive sentiment terrorism communication minus the frequency of negative sentiment terrorism communications (net frequency) (1970-2014)

When calcluating the average monthly sentiment score, a different perspective on presidential communications emerged. Figure 6.8 below suggests that with the excpetion of the Obama administration, the sentiment scores of terrorism communications varied more in earlier presidencies. In addition, both Clinton and Bush II rarely averaged positive sentiment scores across their administrations. Although the reduced variations may be a function of the underlying higher number of terrorism communications used by Clinton and Bush II, Obama had also a relatively high number of terrorism communications, yet had more variation then his two predecessors. Both Reagan (0.356) and Carter (0.383) each had months with an average sentiment score greater than 0.3, however in both cases these values were driven by a single communication concerning terrorism. All presidents had negative average monthly sentiment scores, with Nixon

having the lowest average sentiment score at -0.15, followed by Clinton (-0.09), Reagan

(-0.07), Ford (-0.07), Bush II (-0.04), Obama (-0.03), Bush I (-0.03), and Carter (-0.02).
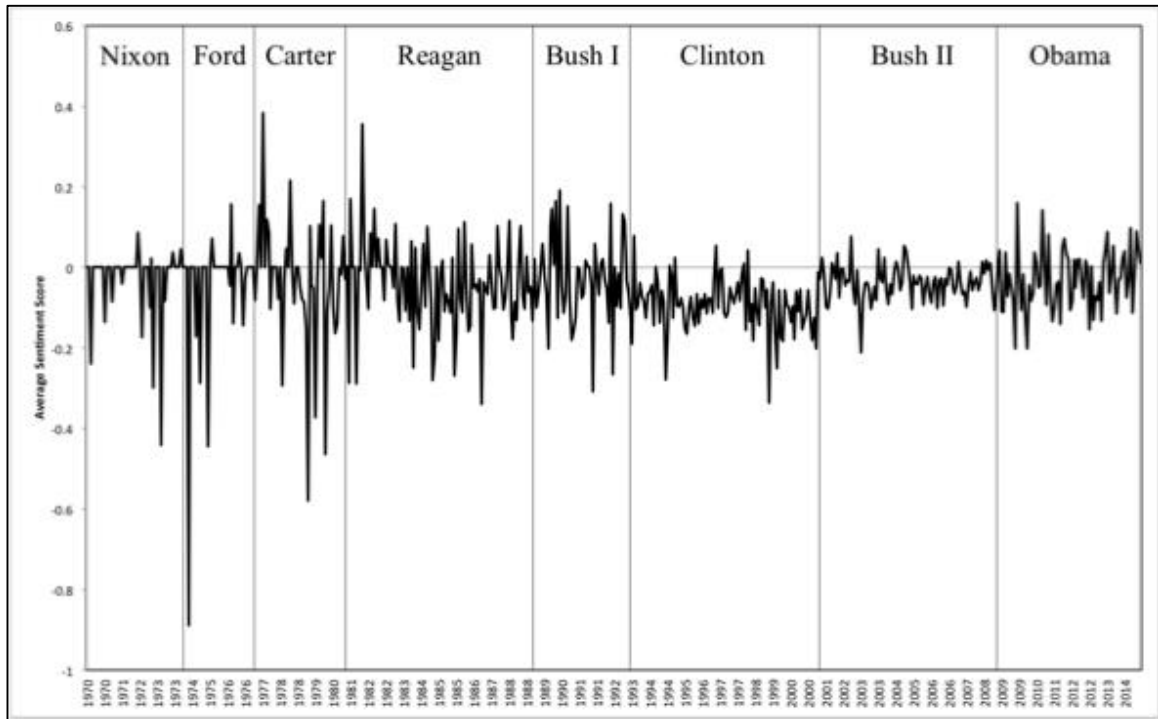
Figure 6.8: Average monthly sentiment score of terrorism communications (1970-2014)

Incorporating the number of communications in each month, the net sentiment

value (sum of the sentiment scores for each month) revealed yet another perspective on

these communications (Figure 6.9). The magnitude of the net sentiment value was

greatest under Bush II, reflecting the social and political importance placed on terrorism

in more recent presidencies. Further, Figure 6.9 also indicates that the communication

strategies employed toward the end of the Carter administration may have been different

than those employed early on. The variability in the net sentiment value in Figure 6.9 also

reveals that if taken on their own, the average monthly scores may obscure important

trends in terrorism communications. While Clinton and Bush II had relatively stable

average sentiment scores in each month, incorporating the number of communications in

calculating the net sentiment reveal that the cumulative impact of terrorism

communications may have varied quite dramatically across months.
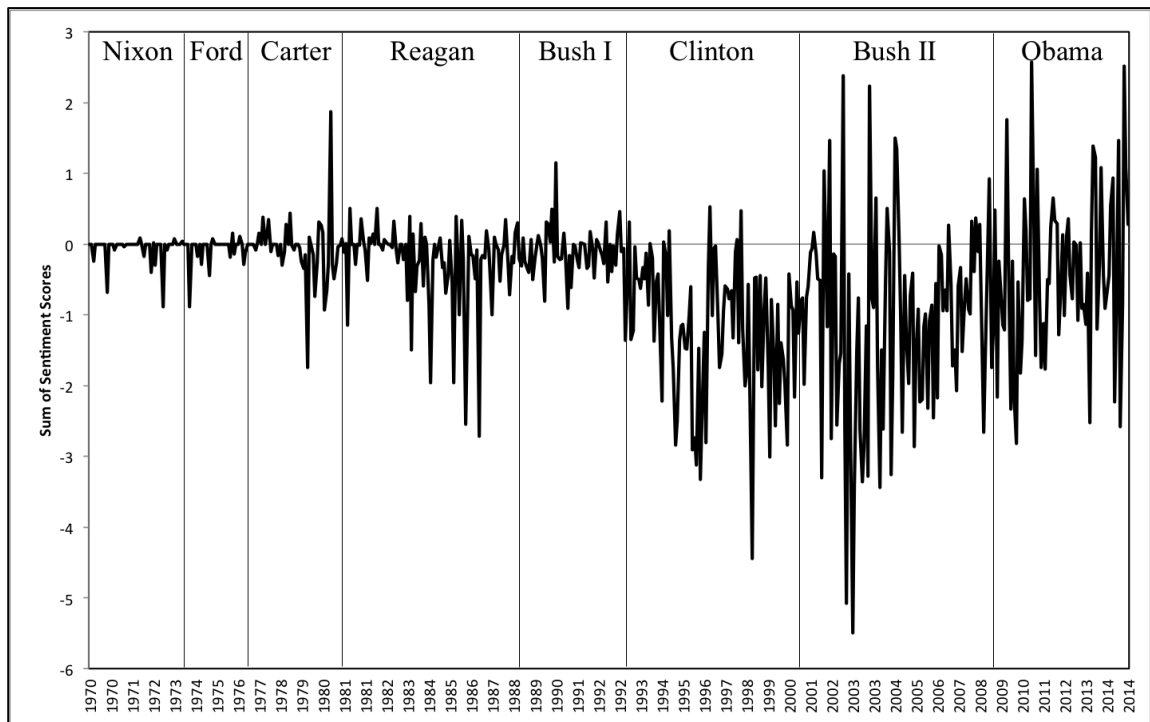
Figure 6.9: Sum of sentiment scores of terrorism communications (net sentiment value) (1970-2014)

This dissertation also documents communications that introduced or updated

policy concerning terrorism ("policy communications"). As it can be seen in Figure 6.10

below, the average number of monthly policy communications grew steadily across each

presidential administration until peaking under Bush II (2.604 per month). Figure 6.10

also displays that the average number of policy communications doubled for both the

Clinton and Bush II in comparison to the administrations that preceded them. These

increases are in line with the observations from Chapter that high profile terrorist

incidents such as the 1993 World Trade Center under Clinton produced the greater

introduction of counterterrorism policy (Badey, 1998). The average frequency of policy

communications did decrease under the first six years of the Obama administration

(1.361 per month), further echoing the literature suggesting that the September 11th attacks drove the introduction of terrorism policy. The overall trend displayed in Figure 6.10 however suggests the policy relevance of terrorism had been steadily increasing at least since the Nixon administration.
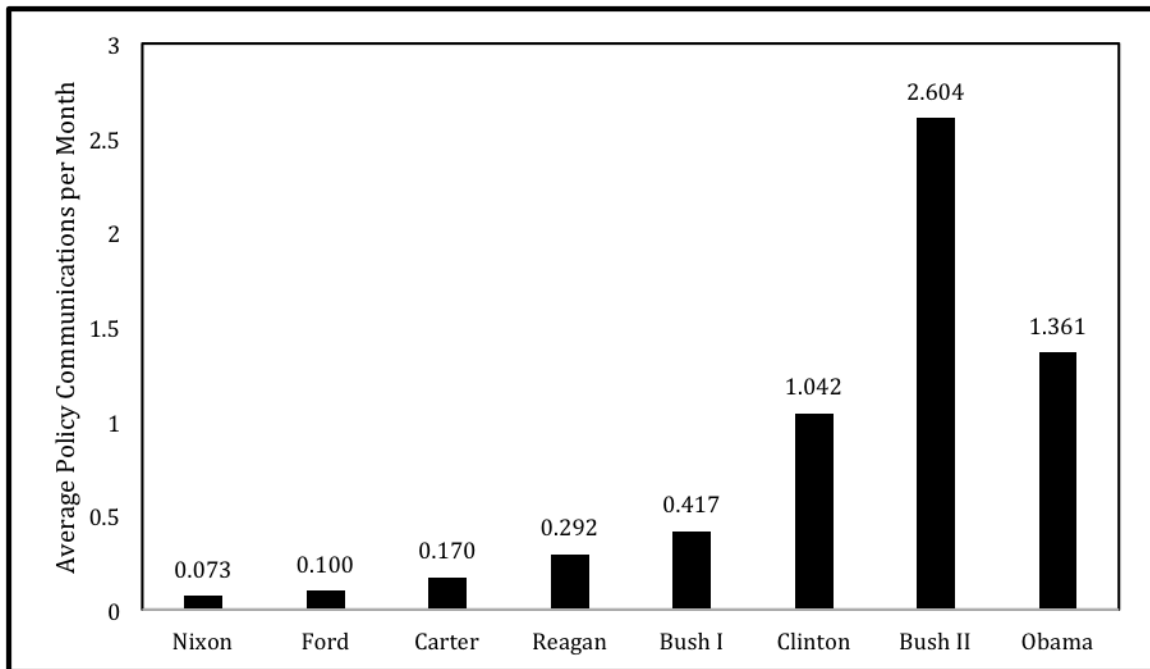
Figure 6.10: Average monthly frequency of policy communications for each presidency

The relevant communications measures for each administration are summarized below in table 6.1 for ease of comparison. In addition to the previously noted trends, it should be noted that the Ford administration had the fewest public communications concerning terrorism (f=18), however this number was greater per month for Ford (0.6 per month) than for Nixon (0.338 per month). In his limited tenure, Ford also employed more public communications per month than Nixon (83.967 vs. 38.279), however this is relatively little compared to Bush II who averaged 166.485 communications per month.

Table 6.1:   Table of descriptive statistics

Variable	Nixon	Ford	Carter	Reagan	Bush I	Clinton	Bush II	Obama
Terrorism Communications	23	18	131	333	149	1210	2945	1192
Total Communications	2,603	2,519	5,694	10,945	5,839	14,475	16,149	11,686
Proportion of Total Communications that concern Terrorism	0.009	0.007	0.023	0.030	0.026	0.084	0.182	0.102
Average Terrorism Communications Per Month	0.338	0.60	2.69	3.42	3.06	12.42	30.24	12.24
Average Sentiment	-0.15	-0.07	-0.02	-0.07	-0.03	-0.09	-0.04	-0.03
Standard Deviation of Sentiment	0.26	0.17	0.24	0.20	0.17	0.16	0.22	0.27
Proportion of Press Secretaries Terrorism Communications	0.161	0.067	0.434	0.350	0.315	0.436	0.673	0.726
Proportion of Negative Communications	0.714	0.692	0.628	0.633	0.545	0.771	0.638	0.662
Proportion of Positive Net Frequency Months	0.545	0.067	0.213	0.177	0.354	0.042	0.052	0.069
Average Policy Communications Per Month	0.073	0.100	0.170	0.292	0.417	1.042	2.604	1.361

Moderating Variable Descriptive Statistics

As outlined in Chapter 5, this dissertation examines presidential approval rating, as a moderating variable. In viewing presidential approval ratings it is first important to note that the length of tenure of each president included in this study varied across each presidency. Figure 6.11 displays below that Ford spent less than a third of the time in office than did Reagan, Bush I, Clinton, and Bush II, who each served two terms as president.
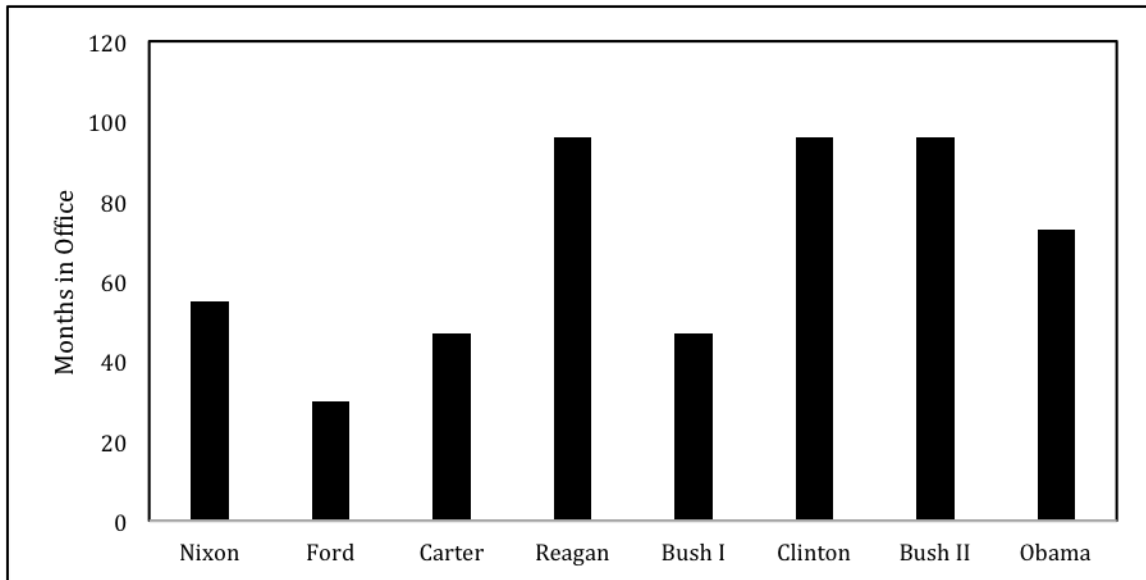
Figure 6.11: Tenure of each president in months

The original data measuring the moderating variable, presidential approval rating, can be seen in Figure 6.12. As it can be seen below, Bush II had both the highest approval and disapproval scores during this time. All presidents also experienced periods during which their approval rating was both higher and lower than their disapproval rating. A close inspection of Figure 6.12 also reveals that presidential disapproval is linked to not directly inverse of presidential approval, with Nixon's approval rating dropping to the lowest out of any president since 1970.
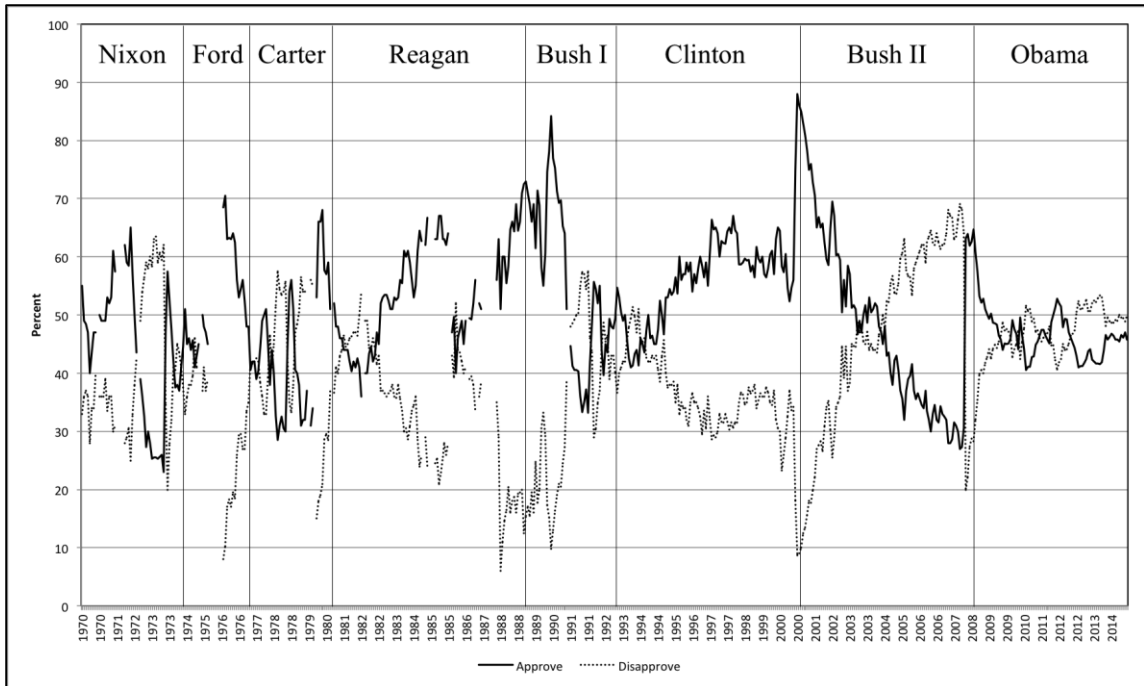
Figure 6.12: Monthly average approval and disapproval ratings (1970-2014)

As noted in Chapter 5, linear interpolations were used to estimate presidential approval ratings for the 28 months when Gallup did not conduct any polls. In order to assess whether these interpolations might influence the results, a series of t-tests are conducted for each presidency. Figure 6.13 below shows that the average monthly approval ratings are nearly identical regardless of whether the 28 interpolated months are included. There were no missing approval data for the Clinton, Bush II, and Obama administrations, and for the five presidencies for which presidential approval data were interpolated, no statistically significant differences were detectable between the original data and the interpolated data used to test the four hypotheses: Nixon (t=0.520, p=0.604), Ford (t=-0.318, p=0.752), Carter (t=-0.035, p=0.972), Reagan (t=0.069, p=0.945), Bush I (t=-0.0583, p=0.954).

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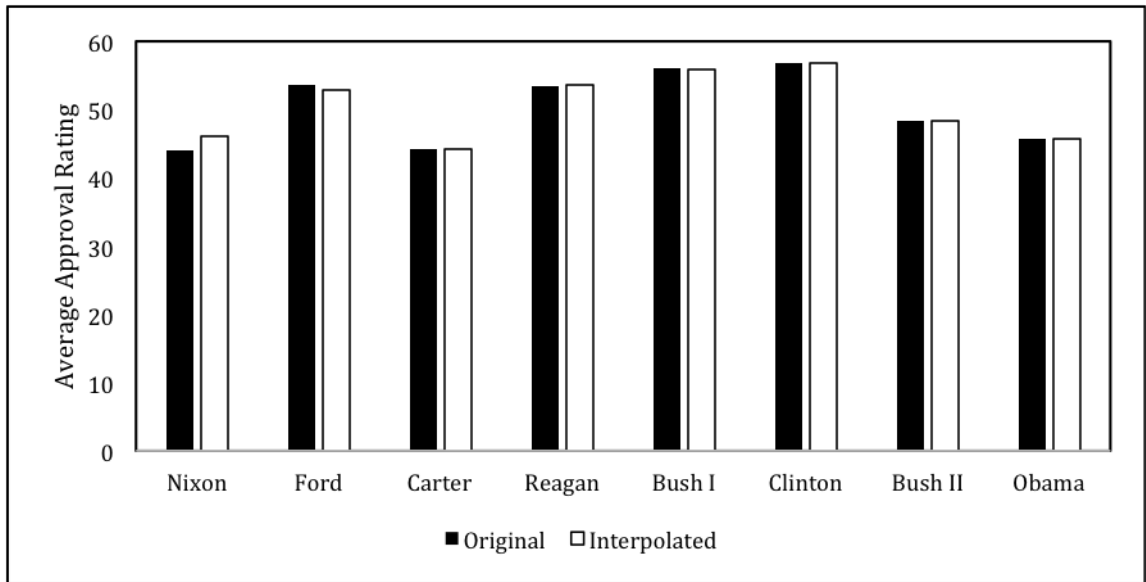
Figure 6.13: Average original and interpolated approval ratings (1970-2014)

Results of Hypothesis Tests

Hypothesis 1 – The Impact of the Count of Terrorism Communications

The first set of models used to test the hypotheses examine whether the frequency of presidential communications concerning terrorism had any impact on the incidence of terrorism targeting the US in the following month. Due to conflicting theories regarding the effect of presidential terrorism communications, the first set of hypotheses stated that these communications may be positively related to terrorism (attention) or negatively related to terrorism (acknowledgement). Thus, the first model uses the monthly frequency of all presidential communications as the primary independent variable. The findings from this model are summarized below in Figure 6.14. In this Figure and all subsequent Figures, the relationship(s) of theoretical interest are denoted by a thickened black arrow. All statistically significant estimates have bolded coefficients listed and have been denoted by solid black arrows and asterisks. All statistically null relationships have dashed arrows.

As it can be seen below in Figure 6.14, this initial test yields a negative and statistically significant relationship between the frequency of presidential communications and the incidence of terrorism in the following month. This negative finding supports the *acknowledgement* hypothesis (1b). This model also reveals a number of other theoretically important insights. Firstly, approval rating is found to be unrelated to terrorism in the following month, after accounting for the other variables in the model. This finding is robust to sensitivity tests that examined disapproval ratings ($\hat{\beta}=0.004$, p=0.103), and to those including the pre-interpolated approval ratings instead ($\hat{\beta}=-0.005$, p=0.097). This model also suggests that the length of a president's time in office is negatively related to terrorism. Both previous terrorism and the proportion of previous presidential communications regarding terrorism are statistically significant predictors of presidential communications.

Figure 6.14: Structural equation model for the relationship between the monthly frequency of presidential communications regarding terrorism on the frequency of terrorism (p<0.05 *, p<0.01 **, p<0.001 ***)

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When this initial model is amended to examine potential differences between domestic and international terrorism similar substantive findings also emerge. As a negative relationship is also observed for domestic terrorism ($\hat{\beta}$=-0.023, p<0.001) and international terrorism ($\hat{\beta}$=-0.006, p=0.026), this support for the *acknowledgement* hypothesis (1b) does not appear to be an artifact of looking at all terrorism targeting the US. When the number of people killed by terrorist attacks is used as the dependent variable, the opposite relationship is observed. Regardless of whether the measurement for terrorism casualties does ($\hat{\beta}$=0.014, p=0.044) or does not include the September 11th attacks ($\hat{\beta}$=0.022, p=0.001), or are log-transformed (excluding September 11th $\hat{\beta}$=0.012, p=0.001; including September 11th $\hat{\beta}$=0.015, p<0.001), this positive relationship persists. This can be seen as conditional support for hypothesis 1a (*attention*).

The next set of models examines whether any of the above are driven by either written or spoken communications alone. Both written and spoken communications are modeled together (denoted by the thickened black arrows), and the primary structural equation model that is used to examine this sensitivity test is displayed below in Figure 6.15. Further supporting the *acknowledgement* hypothesis (1b), spoken presidential communications yield a negative and statistically significant impact on the frequency of terrorism in the following month. This impact is not seen to extend to written communications however (marked with a dotted line in Figure 6.15).[48] In this model and in the other sensitivity analyses, the estimate for tenure is statistically null in contrast to

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[48] The frequency of written and spoken presidential communications are highly correlated with one another however (r=0.7406), and when spoken communications are removed from the model, written communications are negatively related to the frequency of terrorism ($\hat{\beta}$=-0.047, p<0.001).

the previous model, which combined all presidential communications into a single

variable. The frequency of previous terrorism is also found to be positively related to

spoken communications but not to written communications, further suggesting that

spoken communications perform differently than written communications. These findings

persist when the dependent variable includes only domestic terrorist attacks

($\hat{\beta}_{\text{spoken}}$=0.015, p=0.007; $\hat{\beta}_{\text{written}}$=0.034, p=0.194) or international attacks ($\hat{\beta}_{\text{spoken}}$=0.011,

p=0.021; $\hat{\beta}_{\text{written}}$=0.009, p=0.701).
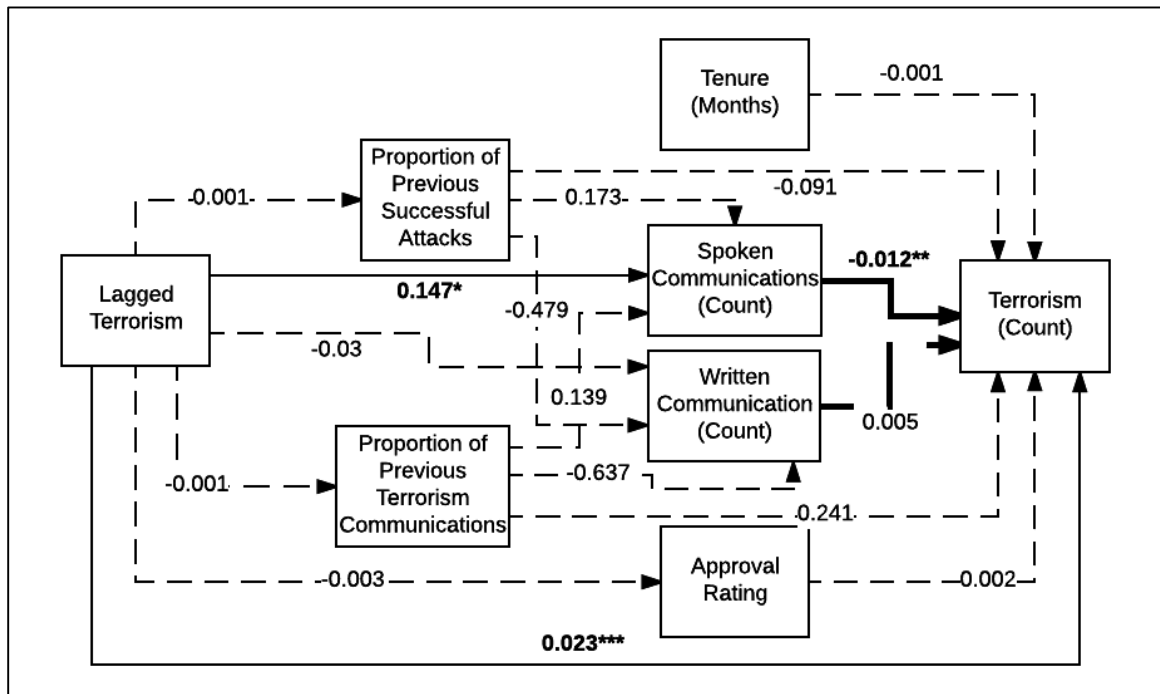
Figure 6.15: Structural equation model for the relationship between the monthly frequency of spoken and written presidential communications regarding terrorism on the frequency of terrorism (p<0.05 *, p<0.01 **, p<0.001 ***)

Echoing both sets of previous findings, a positive relationship emerges when the

number of terrorism casualties is used as the dependent variable, and this relationship is

limited to spoken communications. This finding is robust to when the September 11th

attacks are included ($\hat{\beta}_{spoken}$=0.026, p<0.001; $\hat{\beta}_{written}$=-0.015, p=0.608) or excluded

($\hat{\beta}_{spoken}$=0.013, p<0.001; $\hat{\beta}_{written}$=-0.014, p=0.262) supporting hypothesis 1a (*attention*).

The next set of models examines whether there are any differences between communications delivered by presidents and press secretaries (Figure 6.16). Presidential communications are negatively associated with to the frequency of terrorism, those by the press secretary are null. However, when modeled on its own (r=0.6972) the count of terrorism communications from the press secretary is negative and statistically significant ($\hat{\beta}$=-0.019, p<0.001). Taken together, these findings are once again in line with the *acknowledgement* hypothesis (1b). These findings are also robust to the location of the terrorist attacks, with both domestic ($\hat{\beta}_{president}$=-0.033, p<0.001; $\hat{\beta}_{press\ secretary}$=0.006, p=0.600) and international attacks ($\hat{\beta}_{president}$=-0.013, p<0.018; $\hat{\beta}_{press\ secretary}$=0.001, p=0.948) producing a similar pattern of findings.
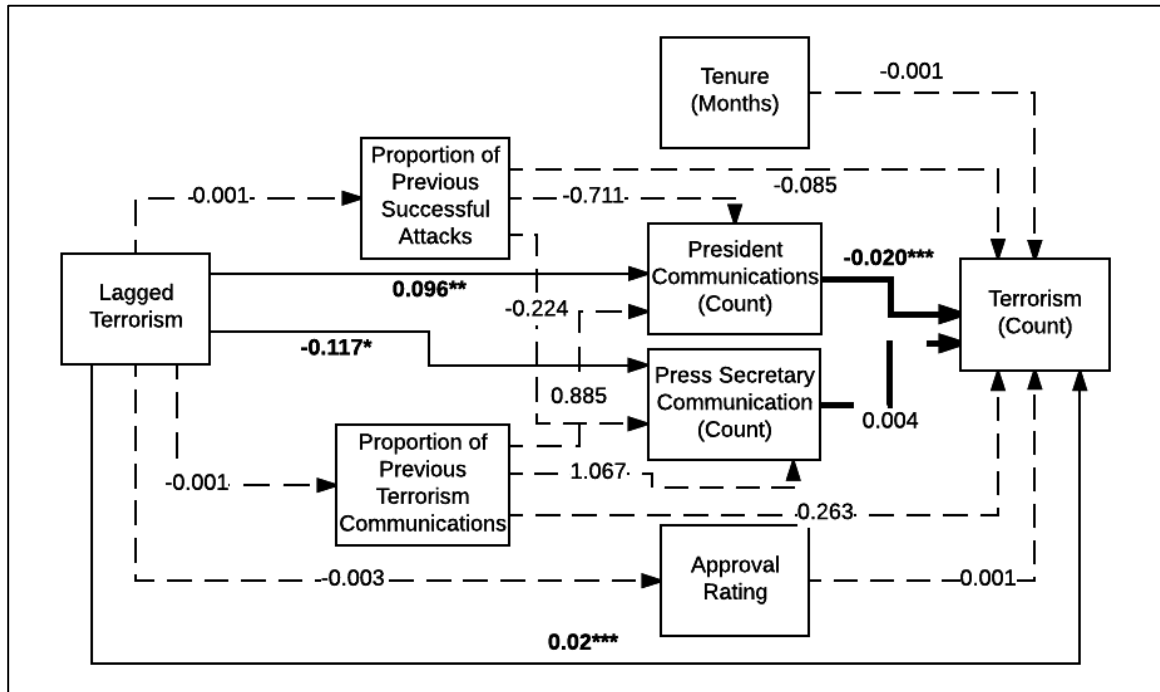
Figure 6.16: Structural equation model for the relationship between the monthly frequency of communications from presidents and press secretaries regarding terrorism on the frequency of terrorism (p<0.05 *, p<0.01 **, p<0.001 ***)

Separating the count of terrorism communication based on its source also yields findings for terrorism casualties that are consistent with the previous models and in support of hypothesis 1b (*attention*). Presidential terrorism communications are positively related to terrorist fatalities when the September 11th attacks are included ($\hat{\beta}$=0.029, p<0.001) and excluded from the model ($\hat{\beta}$=0.013, p<0.001). Logged communications from press secretaries are null when the September 11th attacks are included ($\hat{\beta}$=0.002, p=0.870) and excluded from the model ($\hat{\beta}$=0.001, p=0.980).

The final set of sensitivity analyses for hypothesis 1 partitions the independent variable according to whether or not the communication presented a policy initiative ("policy communications"). Figure 6.17 displays the finding from the primary model that is used to examine the impact of policy communications on terrorism in the following month. Regardless of whether non-policy communications are included in the model or not ($\hat{\beta}$=0.021, p=0.251), policy communications are found to be unrelated to the frequency of terrorism in the following month. The remaining presidential communication however is negatively associated with the frequency of terrorism, in line with hypothesis 1b (*acknowledgement*). These findings are robust to domestic terrorism ($\hat{\beta}_{policy}$=0.019, p=0.453; $\hat{\beta}_{not\ policy}$=-0.012, p<0.001) and international terrorism ($\hat{\beta}_{policy}$=-0.032, p=0.173; $\hat{\beta}_{not\ policy}$=-0.006, p=0.050).
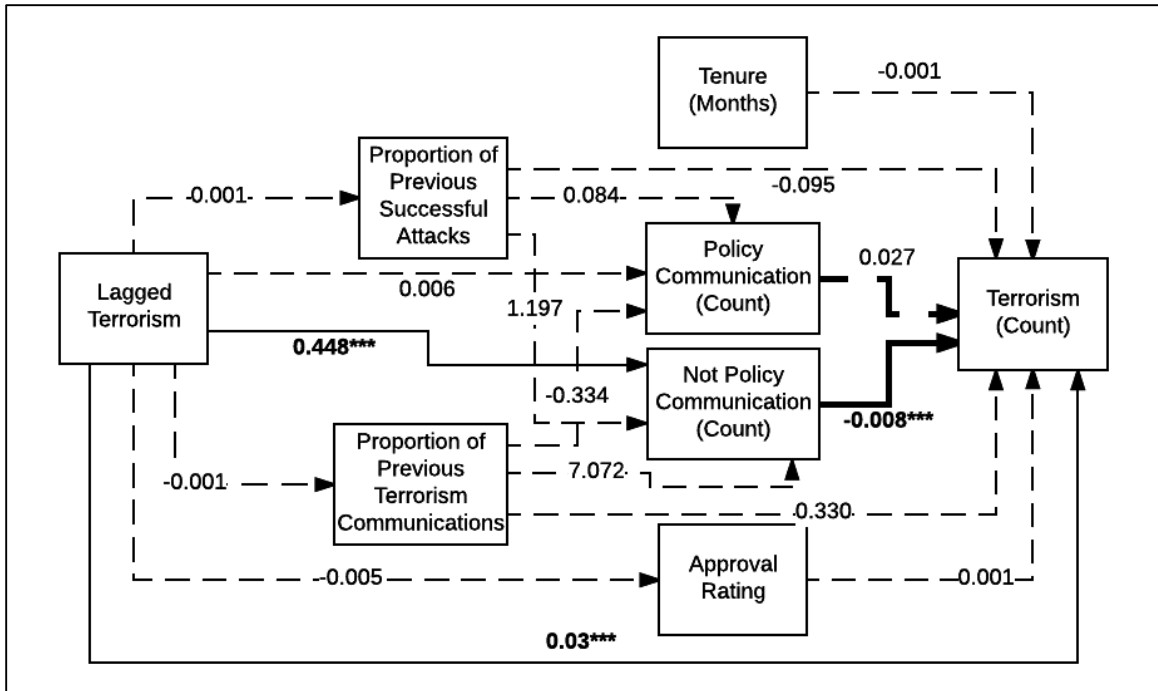
Figure 6.17: Structural equation model for the relationship between the monthly frequency of policy and non-policy communications regarding terrorism on the frequency of terrorism (p<0.05 *, p<0.01 **, p<0.001 ***)

When logged terrorist fatalities are examined, findings similar to the previous models emerge. Policy communications are statistically unrelated to terrorist casualties regardless of whether the September 11th attacks are included ($\hat{\beta}$=0.024, p=0.478) or excluded from the model ($\hat{\beta}$=-0.005, p=0.694) or whether non-policy communications are in the model ($\hat{\beta}_{\text{including 9/11}}$=0.023, p=0.478; $\hat{\beta}_{\text{excluding 9/11}}$=-0.006, p=0.694). In all models, non-policy communications are positively related to logged terrorist fatalities in support of hypothesis 1a (*attention*) ($\hat{\beta}_{\text{including 9/11}}$=0.032, p<0.001; $\hat{\beta}_{\text{excluding 9/11}}$=0.012, p<0.001).

Hypothesis 2 – The Impact of the Sentiment of Terrorism Communications

The second hypothesis concerns the sentiment of presidential communications. Drawing upon restrictive deterrence and rational choice theories, it was

posited that the presidential communications with both positive and negative sentiment may either lead to increases or decreases or decreases in subsequent terrorism.[49] The first set of analyses designed to test hypothesis 2 estimates the impacts of the frequency of positive presidential communications and negative communications as separate measures. The findings for the primary structural equation model can be seen below in Figure 6.18. In support of the sub-hypothesis stemming from *restrictive deterrence* (2a), this primary model detects a negative impact of the frequency of negative presidential terrorism communications on the frequency of terrorism in the following month. Unlike the previous hypothesis however, within this particular model support for *restrictive deterrence* (2a) does not preclude support for the *placation* (2c) or *display of weakness* (2d) hypotheses. Despite this flexibility, this initial model does not find support for either hypothesis, with a null finding for the impact of the frequency of positive communications being observed.

Unlike the findings from hypothesis 1, this finding depends on where the terrorist attacks occurred. Null findings were observed for domestic US terrorist attacks for both the frequency of positive ($\hat{\beta}$=-0.025, p=0.690) and negative ($\hat{\beta}$=-0.014, p=0.743) presidential communications. Instead, the above relationship looks to be driven by terrorist attacks that were directed at US targets internationally. Again providing support solely for *restrictive deterrence*, the frequency of negative sentiment communications is

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[49] Hypothesis 2a: Negative speech will be related to decreases in subsequent terrorism (deterrence)
Hypothesis 2b: Negative speech will be related to increases in subsequent terrorism (backlash)
Hypothesis 2c: Positive speech will be related to decreases in subsequent terrorism (placation)
Hypothesis 2d: Positive speech will be related to increases in subsequent terrorism (display of weakness)

related to decreases in the frequency of terrorism ($\hat{\beta}$=-0.101, p=0.014), while the

frequency of positive communications yields null impacts ($\hat{\beta}$=0.042, p=0.485).
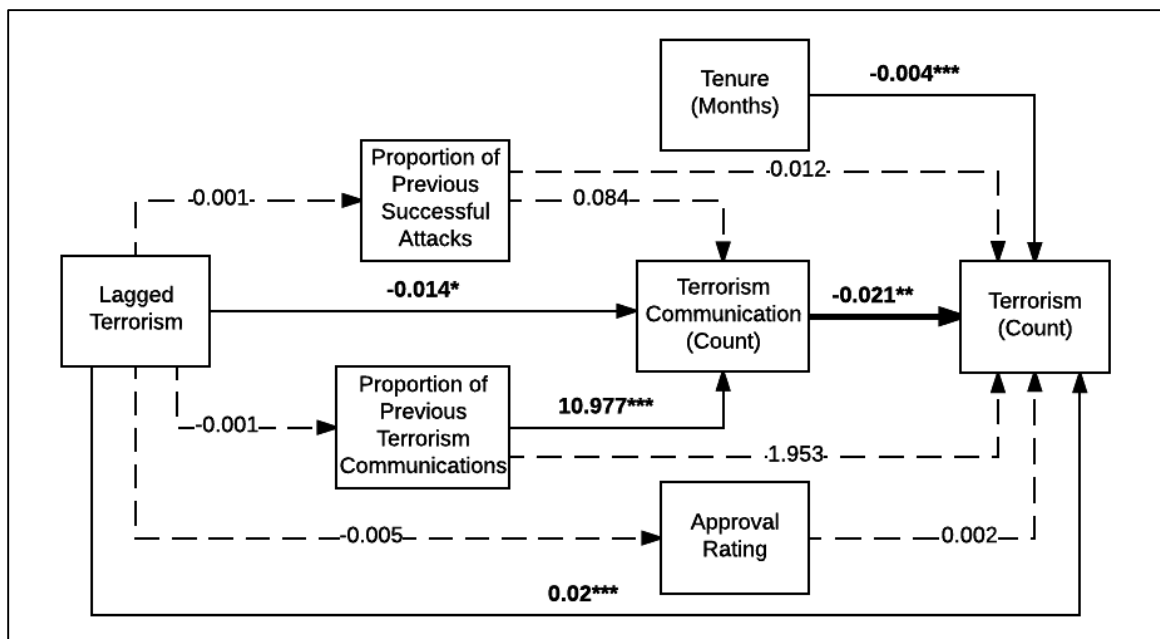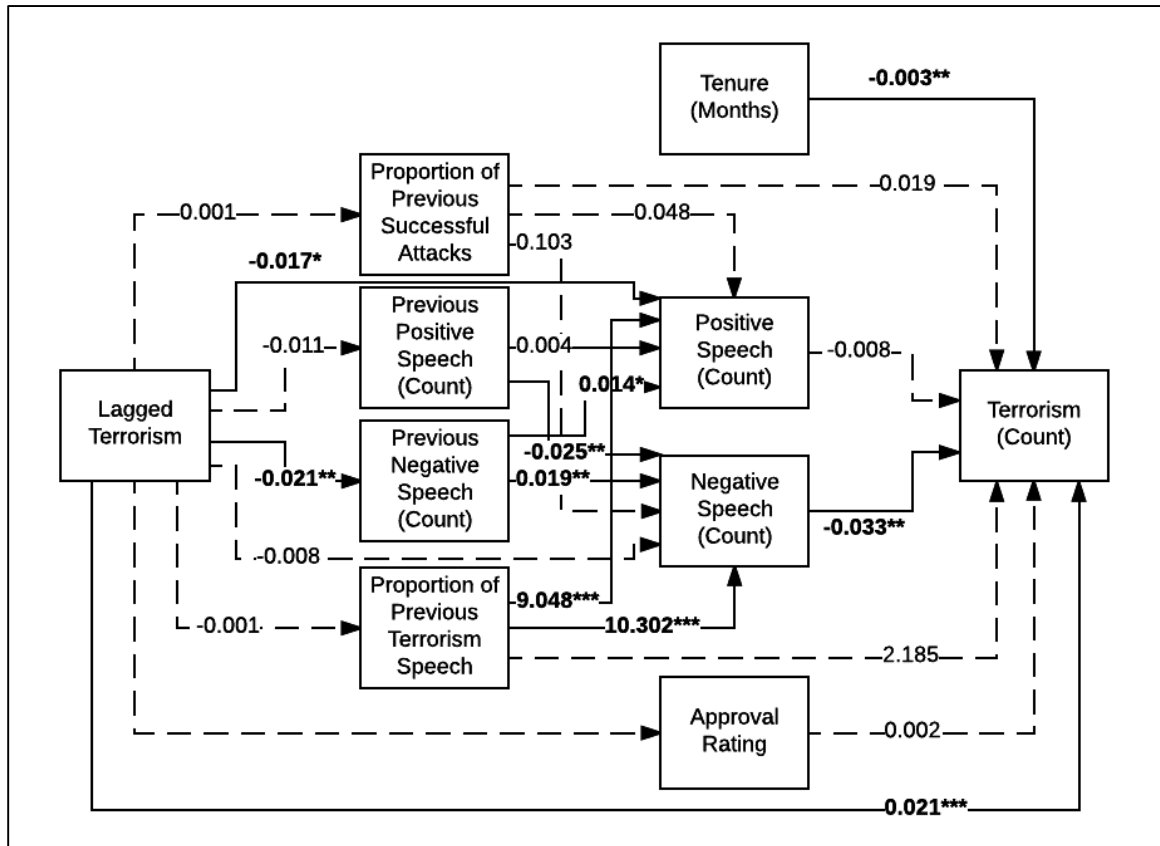

Figure 6.18: Structural equation model for the relationship between the monthly frequency of positive and negative communications regarding terrorism on the frequency of terrorism (p<0.05 *, p<0.01 **, p<0.001 ***)

Across all model specifications and measurement strategies, neither the frequency

of positive communications nor the frequency of negative communications are observed

to be related to terrorism fatalities. It should be noted however that a positive relationship

would have been observed for the impact of the frequency of positive communications on

logged terrorism casualties including ($\hat{\beta}$=0.027, p=0.060) and excluding ($\hat{\beta}$=0.012,

p=0.064) the events of the September 11th attacks, had a threshold of 0.10 been used.

Consequently, while this dissertation does not find support for the *display of weakness*

hypothesis (2d) in this instance.

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The second measurement strategy that is used to test hypothesis 2 uses the net frequency of positive and negative communications, by subtracting the frequency of negative presidential communication from the frequency of positive communications in each given month. As it can be seen below in Figure 6.19, the net frequency of communications is observed to have a positive relationship with the frequency of terrorism in the following month. Noting the limitations of this measurement strategy, this finding is in line with both the *restrictive deterrence* (2a) and *display of weakness* (2d) hypotheses, depending on whether the net frequency is low (restrictive deterrence) or high (display of weakness). In contrast to the findings that are produced when the individual frequencies of positive and negative sentiment communications are observed, this relationship is observed only for attacks occurring domestically in the US ($\hat{\beta}$=0.027, p=0.002). Although a numerically positive coefficient is observed for non-US attacks ($\hat{\beta}$=0.011), this estimate does not meet the 0.10 threshold either (p=0.116).
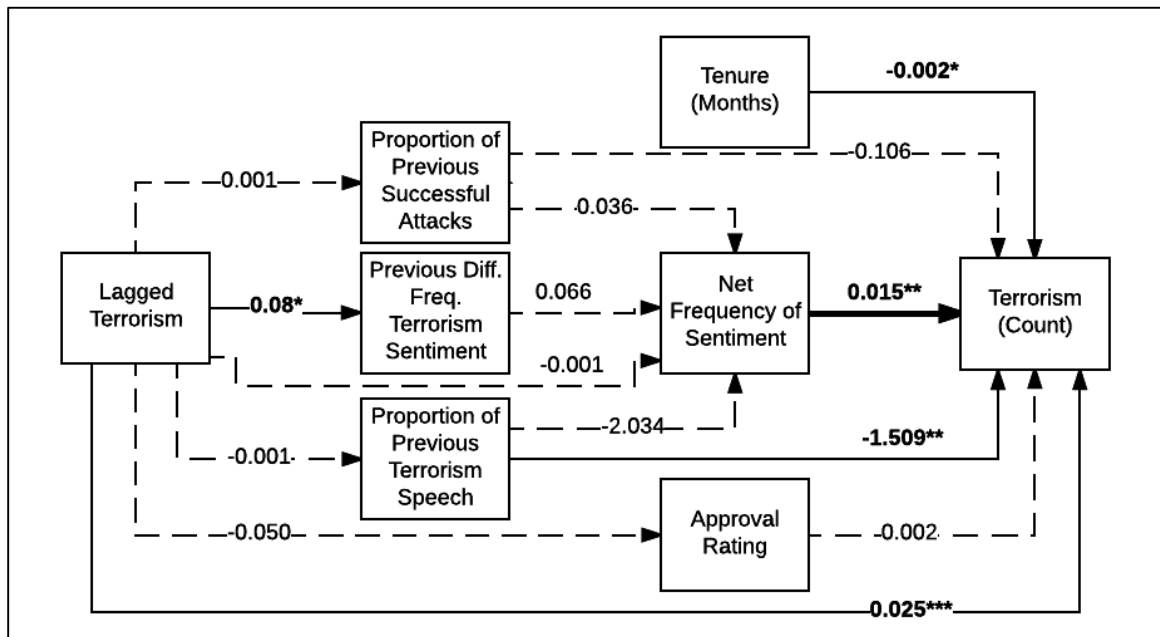
Figure 6.19: Structural equation model for the relationship between the net sentiment frequency of communications regarding terrorism on the frequency of terrorism ($p<0.05$ *, $p<0.01$ **, $p<0.001$ ***)

Consistent and robust negative estimates are obtained for the net frequency on terrorist casualties in the following month, again suggesting the opposite impacts of presidential speech on the incidence terrorism and the deaths resulting from these attacks. The impact of the net frequency on terrorist casualties in the following month is negative for both logged models ($\hat{\beta}_{\text{including } 9/11}=-0.037$, $p<0.001$; $\hat{\beta}_{\text{excluding } 9/11}=-0.011$, $p=0.012$) and non-logged models ($\hat{\beta}_{\text{including } 9/11}=-3.231$, $p=0.005$; $\hat{\beta}_{\text{excluding } 9/11}=-0.537$, $p=0.007$). Consequently, these collective findings suggest support for the *backlash* (2b) and *placation* (2c) hypotheses.

The next set of models uses the average monthly sentiment score as the measure of sentiment. Similarly to the previous set of models, as this uses a single measurement to encapsulate both positive and negative sentiment communications the interpretation of the findings depends on whether the average sentiment is increasing or decreasing. However, it accounts for the actual values of the scores rather than the frequency of positive and negative, thus taking all components into account and not just the marginal difference. Examining the impact on the frequency of all terrorism targeting the US, a null relationship is found for the average monthly sentiment score on terrorism in the following month. When this relationship is also examined for US domestic and international terrorist attacks targeting the US, null relationships are also observed for all model specifications, without exception.
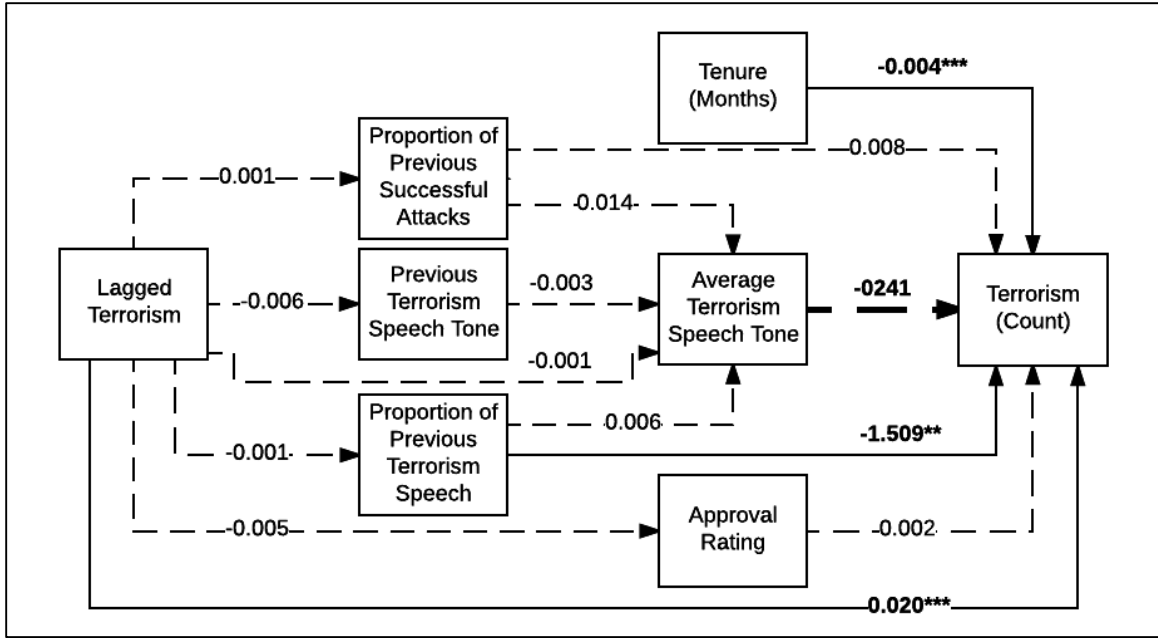
Figure 6.20: Structural equation model for the relationship between the monthly average sentiment score of communications regarding terrorism on the frequency of terrorism (p<0.05 *, p<0.01 **, p<0.001 ***)

Average sentiment score also fails to yield an observable impact on the number of people killed by terrorist attacks in the following month for the aggregated measure. This is the case for logged terrorism casualties ($\hat{\beta}_{including\ 9/11}$=0.379, p=0.442; $\hat{\beta}_{excluding\ 9/11}$=0.140, p=0.516), and terrorism casualties ($\hat{\beta}_{including\ 9/11}$=20.038, p=0.727; $\hat{\beta}_{excluding\ 9/11}$=6.082, p=0.540). When measuring the president and press secretary separately however, the average sentiment score from the president yields a positive and statistically significant impact on terrorism fatalities in the following month ($\hat{\beta}_{including\ 9/11}$=1.653, p=0.030; $\hat{\beta}_{excluding\ 9/11}$=0.752, p=0.025). Null impacts were observed for the press secretary ($\hat{\beta}_{including\ 9/11}$=-0.588, p=0.374; $\hat{\beta}_{excluding\ 9/11}$=-0.324, p=0.264). Drawing on all of these finding, it thus appears that the average sentiment score provides support only for the zero-sum hypotheses (*restrictive deterrence* and *display of weakness*).

The final set of models that are used to test hypothesis 2 uses the net sentiment

values the primary independent variable. As with the previous two measurement

strategies, it should be noted that this approach is unable to distinguish support for the

zero-sum hypotheses (*restrictive deterrence* and *display of weakness)* from the non-zero-

sum hypotheses (*backlash* and *placation*). The primary model used to test the impact of

this independent variable on the frequency of terrorist attacks in the following month can

be seen below in Figure 6.21. For all models using the frequency of terrorism, null

findings are obtained regardless of specification. When the net sentiment value of

presidential sentiment and press secretary are included in the model, both yield

numerically positive point estimates that are indistinguishable from zero ($\hat{\beta}_{president}$=0.022,

p=0.708; $\hat{\beta}_{press\ secretary}$=0.051, p=0.185). This pattern is consistent for domestic terrorist

attacks ($\hat{\beta}_{president}$=0.002, p=0.979; $\hat{\beta}_{press\ secretary}$=0.075, p=0.194) and international terrorist

attacks ($\hat{\beta}_{president}$=0.044, p=0.571; $\hat{\beta}_{press\ secretary}$=0.054, p=0.271).
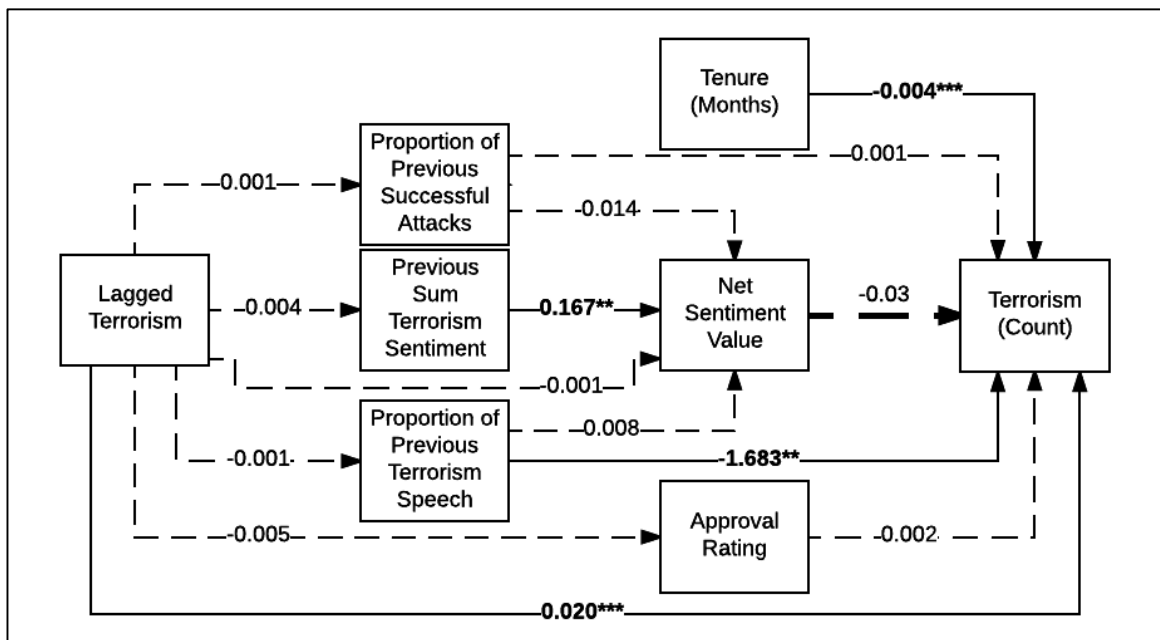
Figure 6.21: Structural equation model for the relationship between the net sentiment value of communications regarding terrorism on the frequency of terrorism (p<0.05 *, p<0.01 **, p<0.001 ***)

The net sentiment value is however related to the number of people killed in terrorism attacks in the following month when the president and press secretary are measured separately, conditionally supporting the non-zero-sum hypotheses (*backlash* and *placation*). Across models that include ($\hat{\beta}_{president}$=0.346, p=0.001; $\hat{\beta}_{press\ secretary}$=-0.272, p<0.001) and exclude the September 11th attacks ($\hat{\beta}_{president}$=0.159, p=0.001; $\hat{\beta}_{press\ secretary}$=-0.122, p<0.001), positive estimates are observed for the monthly net presidential sentiment while a negative relationship is seen for the monthly sum of press secretary sentiment. These divergent findings provide further evidence that the origin of terrorism communications if of consequence, with presidents and their press secretaries eliciting opposite impacts in this case. As a single measure of presidential communications however, the net sentiment value produces null findings for terrorism deaths in the following month ($\hat{\beta}_{including\ 9/11}$=-0.087, p=0.091; $\hat{\beta}_{excluding\ 9/11}$=-0.037, p=0.091). Concordantly, this measurement strategy suggests that the net sentiment value has a zero-sum relationship with terrorist fatalities for presidential communications but a non-zero-sum relationship for press secretaries.

Hypothesis 3 – Contextual Variation

The third hypothesis examines whether the impacts of presidential communications on terrorism differ across presidencies.[50] To test this hypothesis, each of the models presented above are repeated for each president separately to examine the

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[50] Hypothesis 3: The relationship between presidential communications and subsequent terrorism will vary across administrations.

frequency and sentiment of each presidential administration's communications on terrorism. Due to the volume of primary and sensitivity models required to test this hypothesis, only the statistically significant coefficient estimates for the primary independent variable(s) are discussed below. As discussed in Chapter 5, the threshold for significance for this hypothesis is 0.10 to account for the smaller sample sizes in the analyses for this chapter. A table containing the coefficient, standard error, and p-value for each structural equation model used to test hypothesis 3 can be found in tables B.1 to B.8 in Appendix B. Tables containing the coefficient, standard error, and p-value for models that have statistically significant primary independent variables are included in this chapter.

Beginning with the Nixon administration, the frequency of terrorism communications appear to be unrelated to terrorism casualties, domestic, international, or all terrorism targeting the US. These null findings are consistent across models that test spoken and written communications, communications by the president and press secretary, and whether communications introduce policy. When a threshold of 0.10 is used however, some statistically significant findings emerge (see Table 6.2 below). Communications delivered by Nixon are found to be positively related to domestic terrorism in the following month ($\hat{\beta}$=0.658, p=0.082). As 28 structural equation models are used to measure the potential relationship between Nixon's communication and terrorism, this finding however is uncompelling. These findings suggest that during the Nixon administration terrorism communication are unrelated to terrorism.

Table 6.2: The coefficients, standard errors, and p-values for each of the statistically significant (p<0.10) primary relationships for the Nixon Administration

Nixon				
Independent Variable	**Dependent Variable**	**Coefficient**	**Standard Error**	**P Value**
President Comm	Domestic	0.658	0.378	0.082
Net Sentiment Frequency	International	-0.222	0.117	0.057
Average Sentiment	Count	-0.939	0.496	0.058

Similar null findings are also observed for the four different sentiment measures on terrorism under Nixon. Out of the 20 models testing this potential relationship, once again, zero produce statistically significant findings (α=0.05). At an alpha of 0.10, the net sentiment value has a negative relationship with international terrorism in the following month ($\hat{\beta}$=-0.222, p=0.057), and the average monthly sentiment also yields a negative impact on the frequency of all terrorism targeting the US ($\hat{\beta}$=-0.939, p=0.058). Taken together, these findings suggest an overall null impact of both the frequency and sentiment of terrorism communications on terrorism in the following month during Nixon's presidency.

Despite Ford's shorter presidential tenure, a variety of terrorism communications are detected to impact terrorism in the following month (Table 6.3). Spoken communications by Ford and his press secretary were related to decreases in domestic terrorism ($\hat{\beta}$=-0.468, p=0.011) and increases in international terrorism targeting the US in the following month ($\hat{\beta}$=0.303, p=0.097). When the source of these communications is viewed, Ford's press secretaries appear to be driving this impact. Ford's press secretaries impact on domestic ($\hat{\beta}$=-0.914, p=0.035) and international terrorism ($\hat{\beta}$=0.691, p=0.007) follow this same diverging influence, while Ford's impact on domestic terrorism runs in the opposite direction than that observed for all communications ($\hat{\beta}$=0.202, p=0.092). These findings echo the qualitative accounts discussed in Chapter 4 where Ford struggled

to maintain perception of authority as president domestically (Brinkley, 2007) and that he left much of the meaningful counterterrorism actions to other members of the federal government (Naftali, 2005).

Table 6.3: The coefficients, standard errors, and p-values for each of the statistically significant primary relationships for the Ford Administration

Ford

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Spoken Comm	Domestic	-0.468	0.183	0.011
Spoken Comm	International	0.303	0.182	0.097
President Comm	Domestic	0.202	0.120	0.092
PS Comm	Domestic	-0.914	0.438	0.035
PS Comm	International	0.691	0.255	0.007
Positive Comm Count	International	-0.111	0.061	0.072
Net Sentiment Frequency	International	-0.381	0.190	0.045

Similarly to Nixon, the majority of models investigating the impact of the sentiment of terrorism communications yield null estimates for Ford. Despite this overall trend, both the monthly count of positive communications ($\hat{\beta}$=-0.111, p=0.072) and the net sentiment frequency ($\hat{\beta}$=-0.381, p=0.045) elicit a negative influence on international terrorism during this period. Although this dissertation once again urges caution in interpreting these findings, this pattern of findings suggests that the sentiment of Ford's communications may have had a *placating* impact on international terrorism targeting the US. As this impact was not observed for any models testing the average or net monthly sentiment, the quantity and distinction between the sentiment being positive and negative appears to have been of greater consequence for international terrorism.

Communications regarding terrorism have a more consistent and widely evident impact on terrorism in the following month for the Carter administration (see Table 6.4 below). The frequency of terrorism communications yields negative impacts on both

terrorism targeting the US generally ($\hat{\beta}$=-0.057, p=0.029) and internationally ($\hat{\beta}$=-0.090,

p=0.031). Sensitivity analyses to investigate whether the medium of the communication

matters also yield identical substantive findings for spoken communications on terrorism

generally ($\hat{\beta}$=-0.040, p=0.053) and international terrorism ($\hat{\beta}$=-0.082, p=0.012). Like

Ford, Carter's press secretaries' communications also impact international terrorism,

however this relationship was negative ($\hat{\beta}$=-0.224, p=0.006) and in line with the

acknowledgement hypothesis (1b). The frequency of President Carter's terrorism

communications is also connected to reductions in all terrorism ($\hat{\beta}$=-0.050, p=0.054) and

international terrorism ($\hat{\beta}$=-0.076, p=0.048) in further evidence of the *acknowledgement*

hypothesis (1b). Although policy communications did not produce a measurable impact,

similarly to all models measuring terrorist casualties, all models with statistically

significant findings suggest that the frequency of terrorism communications under the

Carter administration were linked with reductions in terrorism.

Table 6.4: The coefficients, standard errors, and p-values for each of the statistically significant primary relationships for the Carter Administration

Carter				
Independent Variable	**Dependent Variable**	**Coefficient**	**Standard Error**	**P Value**
Comm Count	Count	-0.057	0.026	0.029
Comm Count	International	-0.090	0.037	0.031
Spoken Comm	Count	-0.040	0.021	0.053
Spoken Comm	International	-0.082	0.032	0.012
President Comm	Count	-0.050	0.026	0.054
President Comm	International	-0.076	0.038	0.048
PS Comm	International	-0.224	0.082	0.006
Positive Comm Count	International	0.054	0.025	0.031
Average Sentiment	Count	1.088	0.498	0.029
Average Sentiment	Domestic	1.957	0.563	0.001
Net Sentiment Value	Count	0.292	0.170	0.088
Net Sentiment Value	Domestic	0.545	0.190	0.004

Conversely and in line with the overall findings from hypothesis 2, the sentiment of Carter's public communication concerning terrorism produce positive impacts on terrorism supporting the *restrictive deterrence* and *display of weakness* hypotheses. Both the monthly average sentiment ($\hat{\beta}$=1.088, p=0.029 for all terrorism; $\hat{\beta}$=1.957, p=0.001 for domestic terrorism) and the net sentiment value ($\hat{\beta}$=0.292, p=0.088 for all terrorism; $\hat{\beta}$=0.545, p=0.004 for domestic terrorism) suggest positive impacts on terrorism overall and domestic terrorism. These findings suggest that the relative sentiment level rather than the positive/negative distinction is more meaningful for Carter than for Ford, displaying key patterned differences between presidencies.

The frequency of terrorism communications for Reagan produces findings conditionally supporting both *acknowledgement* and *attention* hypotheses (Table 6.5). Supporting the *acknowledgement* hypothesis, the monthly frequency of terrorism communications produces a negative impact on terrorism in the following month ($\hat{\beta}$=-0.048, p=0.035). Sensitivity analyses suggest that this influence is limited to spoken communications on domestic terrorism ($\hat{\beta}$=-0.073, p=0.014) and communications delivered by Reagan's press secretaries ($\hat{\beta}$=-0.109, p=0.029). For Reagan, who waged the first "war on terrorism," non-policy communications increase the frequency of terrorism in the following month ($\hat{\beta}$=0.028, p=0.065), international terrorism ($\hat{\beta}$=0.058, p=0.003), and for the first time the number of terrorism casualties ($\hat{\beta}$=0.087, p=0.048). Policy communications also increase terrorism casualties in the following month under Reagan ($\hat{\beta}$=0.291, p=0.031) in accordance with the *attention* hypothesis that was politically prominent during this period.

Table 6.5: The coefficients, standard errors, and p-values for each of the statistically significant primary relationships for the Reagan Administration

Reagan

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Domestic	-0.048	0.023	0.035
Spoken Comm	Domestic	-0.073	0.030	0.014
PS Comm	Domestic	-0.109	0.050	0.029
Non-Policy Comm	Count	0.028	0.015	0.065
Non-Policy Comm	International	0.058	0.020	0.003
Policy Comm	Casualties	0.291	0.132	0.031
Non-Policy Comm	Casualties	0.087	0.043	0.048
Net Sentiment Frequency	Count	-0.029	0.016	0.059
Net Sentiment Frequency	International	-0.048	0.021	0.021
Net Sentiment Value	Domestic	0.022	0.129	0.088

The influence of sentiment exhibits similar impacts for the Reagan administration to the previously discussed findings for the Ford administration. The monthly frequency of both positive and negative communications are unrelated to any type of terrorism or terrorism casualties under the Reagan presidency. The net sentiment frequency does however produce negative estimates for the monthly count of terrorism ($\hat{\beta}$=-0.029, p=0.059) and international terrorism ($\hat{\beta}$=-0.048, p=0.021), supporting the *backlash* and *placation* hypotheses. Some support for the *restrictive deterrence* and *display of weakness* hypotheses is also observed under Reagan, however this is limited to the net sentiment value on domestic terrorism.

As suggested by the discussion in Chapter 4, the impact of terrorism communications shares numerous similarities for Bush I compared to the Reagan administration. The frequency of spoken communications has a negative impact on both overall terrorism ($\hat{\beta}$=-0.093, p=0.035) and international terrorism ($\hat{\beta}$=-0.116, p=0.032) in the following month under during the Bush I's tenure (see Table 6.6 below). This demonstrates that both the medium of communication retains its importance and that this

impact was in line the *acknowledgement* hypothesis. Communications from the press

secretary are also yield observable influences on the count of terrorism ($\hat{\beta}$=-0.131,

p=0.057), international terrorism ($\hat{\beta}$=-0.159, p=0.060), and terrorism casualties under

Bush I ($\hat{\beta}$=-0.274, p=0.006), with Bush I's communications only linking to reductions in

the overall count of terrorism ($\hat{\beta}$=-0.094, p=0.087). As with Reagan however the

frequency of non-policy communications have positive impacts on the count of terrorism

($\hat{\beta}$=0.071, p=0.066) and international terrorism ($\hat{\beta}$=0.088, p=0.061) in the following

month in partial support of the *attention* hypothesis.

Table 6.6: The coefficients, standard errors, and p-values for each of the statistically significant
primary relationships for the Bush I Administration

Bush I

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Spoken Comm	Count	-0.093	0.044	0.035
Spoken Comm	International	-0.116	0.054	0.032
Spoken Comm	Casualties	-0.147	0.066	0.033
President Comm	Count	-0.094	0.055	0.087
PS Comm	Count	-0.131	0.069	0.057
President Comm	International	-0.120	0.068	0.080
PS Comm	International	-0.159	0.085	0.060
PS Comm	Casualties	-0.274	0.094	0.006
Non-Policy Comm	Count	0.071	0.039	0.066
Non-Policy Comm	International	0.088	0.047	0.061

Regardless of the measure of independent or dependent variable, sentiment is

unrelated to terrorism and terrorism casualties for the Bush I administration (see Table

B.5 in Appendix B). This marks the only presidency where this is the case, and these null

findings are evident using any traditional statistical threshold.

In stark contrast, the frequency of communications yields virtually no observable

impacts on terrorism for the Clinton administration (see Table B.6 in Appendix B). The

sole exception to this is for written communications being statistically linked to

reductions in terrorism casualties providing limit and specific support for the

acknowledgement hypothesis ($\hat{\beta}$=-0.176, p=0.034) (Table 6.7). Similarly, the vast

majority of sentiment measures also produce null findings for terrorism during Clinton's

tenure. However, robust and large magnitude impacts are observed for the average

monthly sentiment. Average monthly sentiment is linked to reductions in total terrorism

($\hat{\beta}$=-2.807, p=0.003), domestic terrorism ($\hat{\beta}$=-3.248, p=0.029), and international during

this period ($\hat{\beta}$=-2.232, p=0.090).

Table 6.7: The coefficients, standard errors, and p-values for each of the statistically significant
primary relationships for the Clinton Administration

Clinton

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Written Comm	Casualties	-0.176	0.082	0.034
Average Sentiment	Count	-2.807	0.947	0.003
Average Sentiment	Domestic	-3.248	1.488	0.029
Average Sentiment	International	-2.232	1.315	0.090

For the Bush II presidency, the frequency of terrorism communications produces

a number of findings consistent with the *attention* hypothesis. Spoken communications

($\hat{\beta}$=0.009, p=0.078) and communications from the President ($\hat{\beta}$=0.015, p=0.088) both

increase terrorism in the following month during the Bush II administration. Given the

important terrorism legislation that was introduced under Bush II, policy communications

are also observed to have meaningful and consistent impacts on terrorism in the

following month. These models suggest that policy communications are associated with

increases in the overall frequency of terrorism ($\hat{\beta}$=0.114, p=0.017), domestic terrorism

($\hat{\beta}$=0.186, p=0.030), and international terrorism ($\hat{\beta}$=0.096, p=0.076). When the impacts

of the sentiment of terrorism communications are observed for the Bush II presidency,

statistically significant estimates are only yielded for international terrorism. This impact

however was positive for the negative communication count ($\hat{\beta}$=0.041, p=0.012), but

positive for the net sentiment frequency ($\hat{\beta}$=-0.017, p=0.084) and the net sentiment value

($\hat{\beta}$=-0.092, p=0.064) producing inconsistent findings for both sets of hypotheses.

Table 6.8: The coefficients, standard errors, and p-values for each of the statistically significant primary relationships for the Bush II Administration

Bush II

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Spoken Comm	Count	0.009	0.005	0.078
President Comm	Count	0.015	0.009	0.088
Policy Comm	Count	0.114	0.047	0.017
Non-Policy Comm	Count	0.012	0.004	0.004
Policy Comm	Domestic	0.186	0.086	0.030
Policy Comm	International	0.096	0.054	0.076
Non-Policy Comm	Domestic	0.015	0.007	0.032
Non-Policy Comm	International	0.009	0.005	0.064
Non-Policy Comm	Casualties	0.024	0.009	0.010
Negative Comm Count	International	0.041	0.016	0.012
Net Sentiment Frequency	International	-0.017	0.010	0.084
Net Sentiment Value	International	-0.092	0.050	0.064

Similar to Bush II, the Obama presidency also yields findings from the frequency

variables in line with the *attention* hypothesis and mixed findings from the sentiment

models. For the first time, written communications are seen to increase overall terrorism

($\hat{\beta}$=0.075, p=0.056) and domestic terrorism ($\hat{\beta}$=0.107, p=0.099), and non-policy

communication increase terrorism in the following month as well ($\hat{\beta}$=0.015, p=0.085).

Both the average sentiment and net sentiment value are observed to decrease domestic

terrorism (*backlash* and *placation*) but to increase international terrorism (*restrictive

deterrence* and *display of weakness*). These divergent but consistent findings further

suggest that for some presidents, terrorism communications may yield impacts that

depend on the terrorist threat.

Table 6.9: The coefficients, standard errors, and p-values for each of the statistically significant primary relationships for the Obama Administration

Obama

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Written Comm	Count	0.075	0.039	0.056
Written Comm	Domestic	0.107	0.065	0.099
Non-Policy Comm	Count	0.015	0.009	0.085
Average Sentiment	Domestic	-3.952	1.839	0.032
Average Sentiment	International	2.639	1.195	0.027
Net Sentiment Value	Domestic	-0.281	0.116	0.016
Net Sentiment Value	International	0.161	0.077	0.037

Hypothesis 4 – Public Approval Moderating the Impact of Presidential Communications

The final hypothesis that this dissertation examines is whether a president's public approval rating moderates the impact of the frequency of terrorism communications on terrorism in the following month. Beginning with examining whether having above average approval rating (approval rating greater than 50.666) changes the impact a president's communications, Table 6.10 lists for each dependent variable the coefficient estimates for each main effect and the interaction, their standard errors and p-values. Significant estimates (p<0.05) are bolded for ease of interpretation. Consistent with the tests performed in hypothesis 1, the communication has a negative relationship with the frequency of all terrorism targeting the US in the following month after including above average approval rating in the model ($\hat{\beta}$=-0.018, p<0.001). The estimate for the interaction between the frequency of communications and above average approval rating is positive and statistically significant ($\hat{\beta}$=0.012, p=0.003). This suggests that the decrease in terrorism following months with more communication is offset when the president's favorability rating is higher than average. This finding appears to be driven by domestic terrorism, as the impacts of this interaction on domestic terrorism is also observed, with null findings emerging for international terrorism. Echoing the previous

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findings, terrorist casualties are observed to have the opposite relationship with presidential communications, with a negative and statistically significant impact. Consequently, an above average approval rating appears to reduce the magnitude of the impact of public communications on terrorist fatalities.

Table 6.10: The coefficients, standard errors, and p-values for the impact of higher than average approval rating, communication count and the interaction between higher than average approval and communication count

	Coefficient	Standard Error	P-Value
All Terrorism			
Above Approval	-0.050	0.068	0.459
Communication Count	**-0.018**	**0.003**	**<0.001**
Interaction	**0.012**	**0.004**	**0.003**
Domestic Terrorism			
Above Approval	-0.081	0.095	0.393
Communication Count	**-0.041**	**0.006**	**<0.001**
Interaction	**0.035**	**0.007**	**<0.001**
International Terrorism			
Above Approval	-0.110	0.092	0.230
Communication Count	**-0.010**	**0.004**	**0.017**
Interaction	0.003	0.005	0.626
Terrorism Casualties			
Above Approval	-0.055	0.127	0.667
Communication Count	**0.031**	**0.006**	**<0.001**
Interaction	**-0.018**	**0.007**	**0.013**

In order to examine whether particularly unpopular and popular presidents' communications yield different impacts, interactions that measure presidents with approval ratings in the lowest (approval <36) and highest quartile (approval >58.633) are also used. As above, international terrorism targeting US interests is not impacted differentially by terrorism communications by presidents with lower or higher approval ratings. Indeed, this null relationship persists when the lowest and highest deciles were examined. Presidential communications from presidents with approval rating in the lowest quartile are related to less domestic terrorism in the following month, with

negative main effect and interaction estimates. Communications from these less popular

presidents also yielded greater increases in terrorist casualties however, with positive

main effect and interaction estimates emerging. The presidents with the highest approval

ratings yield very little impact on domestic terrorism in the following month however as

the findings show the positive interaction offsets the negative main effect. In addition,

communications from presidents with approval ratings in the highest quartile are not

observed to have any differential impact on terrorist fatalities.

Table 6.11: The coefficients, standard errors, and p-values for the impact of low and high approval rating, communication count and the interaction between low and high approval and communication count

	Lowest 25% Approval			Highest 25% Approval		
	Coefficient	**Std. Error**	**P-Value**	**Coefficient**	**Std. Error**	**P-Value**
All Terrorism						
Low/High Approval	0.019	0.079	0.813	-0.058	0.076	0.447
Communication Count	**-0.009**	**0.002**	**<0.001**	**-0.015**	**0.003**	**0.000**
Interaction	-0.006	0.005	0.220	**0.010**	**0.004**	**0.023**
Domestic Terrorism						
Low/High Approval	0.093	0.113	0.415	-0.165	0.108	0.127
Communication Count	**-0.010**	**0.004**	**0.005**	**-0.029**	**0.004**	**<0.001**
Interaction	**-0.041**	**0.009**	**<0.001**	**0.028**	**0.006**	**<0.001**
International Terrorism						
Low/High Approval	0.024	0.105	0.820	-0.027	0.103	0.790
Communication Count	**-0.011**	**0.003**	**0.001**	**-0.008**	**0.003**	**0.016**
Interaction	0.008	0.006	0.182	0.000	0.006	0.964
Terrorism Casualties						
Low/High Approval	0.073	0.147	0.618	-0.117	0.142	0.409
Communication Count	**0.015**	**0.004**	**0.001**	**0.024**	**0.005**	**<0.001**
Interaction	**0.023**	**0.008**	**0.006**	-0.009	0.008	0.258

Summary of Findings

This dissertation sought to examine whether presidential terrorism

communications between 1970 and 2014 influenced the incidence of terrorism targeting

the US. Drawing upon restrictive deterrence and rational choice theories, it was

hypothesized that these communications and the sentiments expressed therein had the potential to influence subsequent terrorism. Beginning with the first hypothesis concerning the frequency of terrorism communications, consistent support was found for both the *attention* hypothesis (1a) and the *acknowledgement* hypothesis (1b) across all four ways of partitioning the primary independent variable (total frequency, delivery method, source, and content). Across all four sets of analyses and their sensitivity models, spoken communications, communications from the president himself, and non-policy communications were negatively related to the incidence of terrorism (*acknowledgement*), but positively related to terrorist fatalities (*attention*). These findings are robust across whether examining domestic or international terrorism targeting the US and whether the casualty count of the September 11th attacks is included. Taken together, these findings suggest that while there are counterterrorism benefits for publicly discussing terrorism, presidents should exercise caution, as the attacks committed in the following month tend to be more lethal.

The sentiment of presidential terrorism communications also emerged as an empirically important dimension. The frequency of communications that were negative in tone was related to decreases in terrorism in the following month, but was unrelated to terrorist casualties. The frequency of positive communications, on the other hand, was found to be marginally related increases in terrorism, highlighting that the sentiment of terrorism communications is an important characteristic that may yield different terrorist responses. Models that measured the net frequency sentiment also produced findings consistent with *restrictive deterrence*. Although this approach was unable to strictly differentiate between the *restrictive deterrence* and *display of weakness* hypotheses, as

the majority of months had a negative net frequency sentiment, this dissertation interprets this finding as support for *restrictive deterrence*. In light of null findings emerging for the average monthly sentiment and the net sentiment score however, this dissertation cautions that communication strategies that focus on conveying more extreme negative sentiment are unlikely to influence terrorism. Instead, as the distinction between positive and negative sentiment appears to be the more meaningful threshold, communications that are negative but more neutral in sentiment appear to be the most empirically supported counterterrorism strategy for the 45-year period examined.

Echoing much of the qualitative literature discussed in Chapter 4, this dissertation also found meaningful differences for the impact of presidential terrorism communications on terrorism across presidential administrations. In line with the low prominence that the Nixon administration placed on terrorism, the previous analyses consistently produced null findings for nearly all measurement strategies to test hypotheses 1 and 2. Indeed, it wasn't until the Carter administration that consistent impacts for communications on terrorism emerged. In addition, different communication aspects were more influential within some presidencies. For George H. W. Bush, who continued much of Reagan's communication strategies and techniques, the sentiment of his communications was unrelated to terrorism and terrorist casualties in all models. Conversely for Clinton, who greatly increased the frequency of counterterrorism communications from his predecessors, only his average sentiment score was observed to influence terrorism. Consequently, despite the overall findings produced in testing hypotheses 1 and 2, these important differences suggest that there is meaningful

heterogeneity in the impact of terrorism communications across presidential administrations.

The last hypothesis examined by this dissertation examined whether the impact of terrorism communication was moderated by presidential approval ratings. As predicted, public communications were observed to have statistically distinguishable impacts on terrorism for presidents who had approval ratings in the lowest quartile for the period examined. However, these findings suggest that less popular presidents diminished the incidence of terrorism in the following month more than more popular presidents. While presidents with public approval ratings that are significantly higher or lower than average are also more likely to adopt unpopular policy positions (Canes-Wrone and Shotts, 2004), it could also be the case that communications delivered in these months are qualitatively different.

Chapter 7: Discussion and Conclusions

This final chapter discusses the findings and conclusions regarding the relationship between presidential communication and subsequent terrorism targeting the US. The chapter begins by discussing the results for each of the hypotheses. This is followed by a discussion of the limitations inherent in the analyses and a discussion of future research prompted by the work undertaken here. This chapter concludes with a summary of potential policy and theoretical implications stemming from these findings.

Discussion of Findings

As predicted, presidential communications concerning terrorism were observed to impact terrorism targeting the US in the following month. This suggests that when US presidents console the public, express resolve in terrorist conflicts, and project deterrent messages that terrorist groups are also influenced by these statements. This influence is complicated however, and the results of this dissertation suggest that great care should be taken in crafting communications concerning terrorism. While generally presidential communications were found to be related to reductions in the incidence of terrorism, they were also observed to increase fatalities from these attacks. This may indicate that in light of the political prominence provided by presidents that terrorist groups may focus their resources on fewer but more lethal attacks to maximize their impact. Why this is the case can only be speculated. Perhaps terror groups are emboldened, or perhaps they are desperate. These larger scale more lethal attacks could actually harm the political support for terrorist organizations, rather than drawing a larger constituency, and potentially leading the demise of the organization (Dugan, Huang, LaFree, and McCauley, 2008).

Regardless of the longer-term outcomes for terrorist organizations, this connection to increases in terrorist casualties necessitates that US presidents should carefully consider whether they should use public communications to discuss terrorism to avoid potentially inciting lethal violence. Stemming from these findings, presidential communications are meaningful to terrorist organizations and there is empirical reason to believe that even flippant presidential comments in a public forum may lead to more US deaths from terrorism.

The sentiment of terrorism communications was also observed to be meaningful for terrorist behavior. Indeed, the numerous tests conducted for this dissertation suggest that when presidents communicate more harshly are related to reductions in terrorism. These findings do not indicate that presidents should campaign heavily against terrorist organizations. The findings instead suggest that such strategies would likely produce null impacts on the incidence of terrorism but increase terrorist casualties, particularly if the press secretary employs this strategy. These findings exhibit that presidents and their press secretaries should carefully consider the tone of their terrorism communications before responding or not responding to terrorist events. While there may be political capital to be gained by responding with vitriol, this could do little more than spur terrorist organizations to increase levels of destructive violence.

After observing that the impact of presidential communications varied meaningfully across administrations, this dissertation also suggests that future presidents be mindful of their communications and not employ a "one-size-fits-all" approach to engage with terrorism. Despite numerous similarities in the language they used, the

frequency of spoken terrorism communications by George H. W. Bush appeared to decreased terrorism, while the data show that more attacks were perpetrated against the US after George W. Bush spoke about terrorism. As such, even though some strategies showed promise in reducing terrorism less than a decade earlier, this is no guarantee that any effects will persist. Further, consecutive presidents were observed to have different elements of their communications impact terrorism. In the late 1980s early 1990s, the sentiment of President Bush's language seemed ineffectual, yet later in the 1990s, Clinton's average sentiment appeared to strongly affect terrorism. While this may be a function of his highly loquacious nature that diminished the impact of any single message, these findings demonstrate that presidents need to be aware that what they say could elicit qualitatively different terrorist responses to their predecessor. As such, this dissertation strongly recommends that presidents and their press secretaries monitor the impacts of the communications that are delivered, in order to identify the need to change strategies if the terrorist response alters over time.

This administration dependent impact was particularly evident for policy communications. While policy communications yielded null findings for the full time period examined and for every other president,[51] they were consistently positively related to the incidence of both domestic and international terrorism in the following month for George W. Bush. This suggests that the political exposure given to written communications including the PATRIOT Act following the September 11th attacks on average were related to increases in terrorism in the following month. One of the

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[51] The sole exception to this was for the Reagan administration where policy communications were related to increases in terrorism fatalities in the following month.

strengths of this dissertation was that the data used were able to detect the political attention given to these policies. As non-controversial policies need little discussion, months with a higher volume of policy communications demonstrate increased attention that could mobilize backlash responses. As these political messages may elicit reactions before or after policy introduction, this measurement strategy is thus qualitatively different from the implementation of the policies being discussed. These findings do not however suggest that presidents should avoid publicly announcing counterterrorism policies. Firstly, as noted in Chapter 2, the communication of policies is essential for policies that aim to deter terrorism. In addition, these increases in terrorism in the following month do not preclude longer-term terrorism reductions. Although a lag of month was selected for the present analyses, clearly future research should assess the longer term impacts of these prominent policy communications is an important avenue for future research.

Even within a presidency, the effects of communications can change. When presidents were especially popular their ability to reduce terrorism through speech was less effective than it was for less popular presidents. When presidents were especially popular their ability to reduce terrorism through speech was less effective than it was for less popular presidents. In fact, this 'unpopular president effect' was opposite expectation. One reason for this may be that legitimate political channels appear more viable at these times for terrorist organizations, providing alternative political avenues for resolving conflicts. This does not mean however that less favored presidents can discuss terrorism with impunity, as terrorist casualties were also observed to increased for those with the lowest favorability scores. Once again, this suggests that communications from

unpopular presidents may inadvertently increase the justifications for lethal violence, particularly within the US.

Limitations

  While this research has direct policy implications for governments, along with the potential to generate insights relevant to the fields of criminology and communications, it also has a number of notable limitations. The US context was determined to be advantageous due to the availability of data and questions as to whether presidential speech is able to elicit changes in the attitudes or actions of individuals. However the US has a unique global influence (Erjavec and Volčič, 2006; Kellner, 2005; Osuri and Banerjee, 2004), making the aforementioned findings ungeneralizable to other nations. Further, the dissimilarities across presidential administrations limits the generalizability to presidents beyond 2014. As such, continuing these investigations for future presidencies is vital.

  The dataset that was compiled for this dissertation also excludes a number of key variables that would need to be accounted for in an ideal model. Such variables include overt and covert counterterrorism actions, developments in technology assisting or impeding counterterrorism efforts, attrition of terrorist group membership, and host of other strategic variables. Consequently, it should be noted that this dissertation is unable to rule out rival hypotheses related to other counterterrorism strategies, or to exclude the possibility that the previously highlighted findings are likely biased due to the omission of these and other factors in the analytic models.

A related limitation is that this dissertation excludes public communications delivered by other US federal government actors who play a key role in counterterrorism, such as the Secretary of State. In light of robust impacts being observed from Ford's press secretaries, there is now an empirical justification to investigate whether other key counterterrorism officials beyond the president are also able to impact terrorism especially when the president appears ineffectual. Further, this dissertation also did not investigate the impact of public media accounts or influence which is also a topic worthy of greater empirical investigation.

It should also be noted that the data for the primary independent variable measures the transmission of presidential communications but does not capture their reception by potential terrorists and other key stakeholders. Particularly in cases where null findings were observed, the previous analyses are unable to distinguish whether these findings are product of these messages not impacting terrorist behavior or whether they were systematically not received. The potential for non-exposure may be especially problematic in these models, and may be responsible for the null impacts observed for written communications on international terrorism. Especially for terrorist organizations that do not use English as their primary language, these translation issues are not trivial, and present an important avenue for future research.

It should finally be noted that the data used for this dissertation were also unable to test or to identify the mechanisms that connect presidential communications to terrorist decision-making and terrorist attacks. Consequently, while many of the findings were taken to be evidence of *restrictive deterrence*, this dissertation cannot make any definitive claims as to the mechanisms involved in this process. As such, collecting and

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analyzing individual-level data to better understand the motivations for terrorism remain an important priority for criminology and other related disciplines. Particularly in cases the identity of the perpetrator is unknown, this renders the previous analyses unable to distinguish between different types of deterrence. Thus, while it was argued previously that the most restrictive deterrence was the most likely process driving the findings that were observed, under certain circumstances it is possible that these findings may also be the product of absolute deterrence (see Dugan, Huang, LaFree, and McCauley, 2008). Concordantly, while the overall findings do generally support the restrictive deterrence hypothesis, more tailored research designs are required to better isolate this perspective from other deterrence perspectives.

Policy and Theoretical Implications

Despite these limitations, the findings from this dissertation have merit for governments and scholars concerned with counterterrorism. Its major contributions are threefold. Firstly, terrorist organizations do, indeed, appear to be cognizant of public communications delivered by US presidents. This suggests that what presidents say have consequences beyond shifting their popularity and political capital and can influence the decisions made by terrorists.

Secondly, the specific findings generated from this study can be used to refine and target the messaging strategies used by the US president and other political entities, in order to reduce the impetus for terrorism. The messaging strategies by presidents and other political entities should be deliberate, as the findings suggest that talking about terrorism might reduce the number of attacks, but it could also inspire more lethal attacks against the US. Similar findings have been observed within other terrorist conflicts, and

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particularly when government policies are inconsistent this may drive increased violence will minimizing non-violent actions of dissent (see Lichbach, 1987). In light of the finding that high-profile policy communications under the Bush II administration were related to increases in terrorist violence, counterterrorism and policing agencies should also be on increased alert after presidents discuss terrorism in their rhetoric for possible high impact attacks. Taken together these findings suggest that the majority of policy announcement communications yield negligible impacts on terrorism, however when these statements preset large shifts in policy or are controversial, even traditionally inconspicuous communication types can influence the incidence of terrorism.

These observations also raise the importance of exploring other forms of contextual variation. Beyond the topic and contents of the words being delivered, the delivery of these communications may also be an important element that may drive variation in terrorism. Particularly for verbal communications, whether a speech is delivered behind a podium at the White House, in front of the General Assembly at United Nations, or from a the site of a previous terrorist attack may have important political or symbolic implications. The political significance of these locations may thus also add or detract from the gravity of the messages being conveyed, moderating the impact on terrorism.

Finally, the aforementioned findings yield important insights for criminology, political science, and communications research. Beyond demonstrating that communications is a viable strategy to counter the use of political violence, these findings also provide substantial, yet nuanced, support for the *restrictive deterrence* perspective. Communications can reduce terrorist violence, but it effectiveness seems to depend upon

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different elements of communications during different temporal periods. As such, although the *acknowledgement* and *restrictive deterrence* hypotheses were the most consistently supported perspectives in these data, there were periods where both the frequency (under Clinton) and the sentiment (under George W. Bush) of terrorist communications had no observable impact on terrorism in the following month.

Conclusions

Presidential communications were consistently related to reductions in terrorism targeting the US in the following month. Their impact however was dependent on the person delivering these messages, the medium of delivery, whether they introduced policy, and the sentiment being conveyed. Presidential communications are thus more than hollow rhetoric, and its elements were observed to elicit both increases and decreases in terrorism. Further, the findings repeatedly demonstrated that speech can lead to more terrorist fatalities. In light of these important consequences, presidents and their press secretaries should carefully construct their responses to terrorism, and potentially consider responding with silence in certain instances, to avoid raising the perceived benefits for lethal terrorist violence. Although subsequent research is required to better situate and understand these findings, this dissertation provides empirical support that public communications may be used as a relatively inexpensive, readily available, and less oppressive means to reduce terrorism.

Appendix A

Table A.1 below displays the 20 most frequently used words from the upper and lower sentiment score deciles.

Table A.1: The 20 most frequently used words conveying sentiment from the 10% least positive and the 10% most positive communications (words appearing in the most frequently used 100 words in both the upper and lower deciles in italics)

Rank	Highest 10% Sentiment Word	Count	Lowest 10% Sentiment Word	Count
1	*support*	926	*just*	3475
2	*new*	815	*know*	3442
3	cooperation	772	*now*	2840
4	*work*	749	get	2757
5	*efforts*	702	*make*	2336
6	*including*	655	question	2120
7	*peace*	653	*want*	2113
8	well	650	*made*	2040
9	*continue*	525	*take*	1882
10	commitment	485	*like*	1799
11	*together*	481	*issues*	1792
12	*important*	480	*work*	1698
13	health	474	back	1606
14	time	435	let	1589
15	*information*	434	see	1558
16	*thank*	433	*need*	1522
17	energy	421	*important*	1517
18	global	420	*new*	1508
19	*help*	408	issue	1473
20	great	407	look	1470
21	years	398	*information*	1434
22	*forward*	386	*process*	1430
23	partnership	386	*support*	1426
24	*working*	384	*continue*	1387

25	*act*	383	something	1325
26	*make*	377	believe	1306
27	human	376	*forward*	1295
28	*must*	371	point	1292
29	free	363	*many*	1220
30	region	362	clear	1216
31	*good*	359	come	1191
32	*need*	356	done	1171
33	house	354	fact	1167
34	think	351	part	1157
35	agreed	349	*may*	1141
36	*program*	346	*peace*	1127
37	freedom	345	put	1119
38	strengthen	343	mean	1112
39	community	342	*good*	1100
40	*made*	335	lot	1068
41	meeting	331	talk	1064
42	critical	327	*much*	1054
43	strong	326	sure	1046
44	*now*	318	*working*	1029
45	*progress*	318	whether	1021
46	going	316	*act*	1019
47	growth	315	*help*	949
48	public	314	still	906
49	welcome	314	even	888
50	*just*	313	action	883
51	common	311	every	875
52	general	309	prime	868
53	agreement	308	give	861
54	opportunity	300	case	850
55	foreign	298	anything	843
56	executive	295	kind	840
57	provide	292	*long*	827
58	regional	289	*thank*	797
59	*take*	289	trying	797

60	*future*	288	obviously	791
61	*want*	284	making	785
62	ensure	282	*together*	784
63	*know*	279	problem	782
64	*many*	279	position	753
65	rights	279	around	743
66	bilateral	274	talked	740
67	*political*	274	next	738
68	assistance	273	tell	728
69	programs	272	terms	726
70	economy	271	ask	725
71	last	269	seen	724
72	way	268	*including*	716
73	promote	267	might	715
74	*may*	263	*efforts*	698
75	importance	261	taken	698
76	*process*	261	try	698
77	investment	260	really	693
78	million	260	matter	680
79	*much*	259	use	676
80	policy	259	asked	673
81	shared	254	deal	673
82	threat	251	since	673
83	democratic	249	end	670
84	forces	248	*political*	666
85	within	248	*must*	665
86	prosperity	247	*program*	663
87	relationship	244	justice	660
88	visit	244	able	653
89	service	242	understand	650
90	*like*	240	different	646
91	committed	239	move	634
92	*long*	228	answer	628
93	based	226	getting	628
94	better	226	*plan*	621

95	improve	226	certainly	615
96	*issues*	224	course	612
97	private	224	*future*	611
98	relations	224	specific	611
99	*plan*	222	order	610
100	initiative	219	*progress*	609

Appendix B

This appendix provides the coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3. All models where the primary independent variable of interest was statistically significant are indicated with bolded font (α=0.05) or bolded and italicized font (α=0.10). The full output for all models is available upon request. Estimates pertaining to the models with measures of sentiment are presented below the horizontal line located in each of the eight tables below (B.1-B.8).

Table B.1: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Nixon Administration

| | | **Nixon** | | |
Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Count	-0.031	0.072	0.668
Comm Count	Domestic	-0.030	0.087	0.734
Comm Count	International	-0.028	0.100	0.777
Comm Count	Casualties	0.002	0.130	0.988
Written Comm	Count	0.119	0.146	0.415
Spoken Comm	Count	0.122	0.118	0.301
Written Comm	Domestic	0.091	0.176	0.606
Written Comm	International	0.178	0.200	0.372
Spoken Comm	Domestic	0.119	0.140	0.394
Spoken Comm	International	0.182	0.150	0.224
Written Comm	Casualties	-0.129	0.265	0.627
Spoken Comm	Casualties	-0.134	0.220	0.543
President Comm	Count	0.068	0.083	0.414
PS Comm	Count	0.478	0.320	0.136
President Comm	*Domestic*	*0.658*	*0.378*	*0.082*
President Comm	International	0.183	0.444	0.680
PS Comm	Domestic	0.045	0.098	0.648
PS Comm	International	0.137	0.107	0.203
President Comm	Casualties	-0.104	0.154	0.500
PS Comm	Casualties	-0.078	0.599	0.896
Policy Comm	Count	0.174	0.147	0.235
Non-Policy Comm	Count	-0.022	0.081	0.786
Policy Comm	Domestic	0.128	0.174	0.462
Policy Comm	International	0.208	0.203	0.305
Non-Policy Comm	Domestic	0.046	0.095	0.627
Non-Policy Comm	International	0.065	0.110	0.552

Policy Comm	Casualties	-0.144	0.099	0.158
Non-Policy Comm	Casualties	-0.135	0.141	0.343
Positive Comm Count	Count	-0.193	0.224	0.388
Negative Comm Count	Count	0.152	0.094	0.106
Positive Comm Count	Domestic	-0.414	0.287	0.150
Negative Comm Count	Domestic	0.181	0.116	0.120
Positive Comm Count	International	-0.034	0.293	0.907
Negative Comm Count	International	0.171	0.116	0.140
Positive Comm Count	Casualties	0.134	0.353	0.706
Negative Comm Count	Casualties	-0.195	0.155	0.215
Net Sentiment Frequency	Count	-0.081	0.091	0.373
Net Sentiment Frequency	Domestic	-0.016	0.105	0.883
Net Sentiment Frequency	*International*	*-0.222*	*0.117*	*0.057*
Net Sentiment Frequency	Casualties	0.173	0.159	0.284
Average Sentiment	*Count*	*-0.939*	*0.496*	*0.058*
Average Sentiment	Domestic	-0.865	0.620	0.163
Average Sentiment	International	-0.816	0.628	0.194
Average Sentiment	Casualties	0.424	0.916	0.646
Net Sentiment Value	Count	-0.616	0.478	0.198
Net Sentiment Value	Domestic	-0.353	0.608	0.562
Net Sentiment Value	International	-0.758	0.599	0.206
Net Sentiment Value	Casualties	0.845	0.872	0.338

Table B.2: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Ford Administration

Ford

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Count	-0.035	0.080	0.665
Comm Count	Domestic	-0.035	0.124	0.778
Comm Count	International	0.011	0.139	0.935
Comm Count	Casualties	0.002	0.210	0.994
Written Comm	Count	-0.101	0.142	0.475
Spoken Comm	Count	-0.100	0.003	0.396
Written Comm	Domestic	-0.319	0.220	0.146
Written Comm	International	0.210	0.238	0.378
Spoken Comm	**Domestic**	**-0.468**	**0.183**	**0.011**
Spoken Comm	*International*	*0.303*	*0.182*	*0.097*
Written Comm	Casualties	-0.412	0.339	0.241
Spoken Comm	Casualties	-0.305	0.296	0.317
President Comm	Count	-0.111	0.079	0.163
PS Comm	Count	0.169	0.192	0.378
President Comm	*Domestic*	*0.202*	*0.120*	*0.092*
President Comm	International	0.050	0.139	0.717
PS Comm	**Domestic**	**-0.914**	**0.438**	**0.035**
PS Comm	**International**	**0.691**	**0.255**	**0.007**
President Comm	Casualties	-0.304	0.182	0.112

PS Comm	Casualties	0.410	0.542	0.459
Policy Comm	Count	-0.139	0.184	0.451
Non-Policy Comm	Count	0.044	0.101	0.661
Policy Comm	Domestic	-0.114	0.296	0.701
Policy Comm	International	-0.163	0.310	0.599
Non-Policy Comm	Domestic	-0.102	0.153	0.507
Non-Policy Comm	International	0.281	0.174	0.108
Policy Comm	Casualties	-0.448	0.456	0.339
Non-Policy Comm	Casualties	-0.276	0.245	0.274
Positive Comm Count	Count	-0.017	0.036	0.632
Negative Comm Count	Count	0.009	0.012	0.454
Positive Comm Count	Domestic	0.040	0.056	0.470
Negative Comm Count	Domestic	0.015	0.019	0.441
Positive Comm Count	*International*	*-0.111*	*0.061*	*0.072*
Negative Comm Count	International	0.003	0.020	0.874
Positive Comm Count	Casualties	-0.118	0.088	0.201
Negative Comm Count	Casualties	0.029	0.030	0.337
Net Sentiment Frequency	Count	-0.092	0.115	0.426
Net Sentiment Frequency	Domestic	0.093	0.180	0.605
Net Sentiment Frequency	**International**	**-0.381**	**0.190**	**0.045**
Net Sentiment Frequency	Casualties	-0.030	0.306	0.923
Average Sentiment	Count	-0.249	0.768	0.746
Average Sentiment	Domestic	-1.224	1.139	0.283
Average Sentiment	International	1.513	1.432	0.291
Average Sentiment	Casualties	-0.017	2.108	0.994
Net Sentiment Value	Count	0.221	0.682	0.746
Net Sentiment Value	Domestic	-0.724	1.047	0.489
Net Sentiment Value	International	1.635	1.183	0.167
Net Sentiment Value	Casualties	1.164	1.829	0.533

Table B.3: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Carter Administration

Carter

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	**Count**	**-0.057**	**0.026**	**0.029**
Comm Count	Domestic	-0.046	0.031	0.150
Comm Count	**International**	**-0.090**	**0.037**	**0.031**
Comm Count	Casualties	-0.044	0.034	0.202
Written Comm	Count	-0.160	0.118	0.177
Spoken Comm	*Count*	*-0.040*	*0.021*	*0.053*
Written Comm	Domestic	-0.183	0.140	0.193
Written Comm	International	-0.137	0.160	0.391
Spoken Comm	Domestic	0.023	0.025	0.354
Spoken Comm	**International**	**-0.082**	**0.032**	**0.012**
Written Comm	Casualties	0.123	0.148	0.411
Spoken Comm	Casualties	0.041	0.025	0.115

President Comm	*Count*	*-0.050*	*0.026*	*0.054*
PS Comm	Count	-0.086	0.053	0.108
President Comm	Domestic	-0.038	0.031	0.218
President Comm	**International**	**-0.076**	**0.038**	**0.048**
PS Comm	Domestic	-0.028	0.062	0.646
PS Comm	**International**	**-0.224**	**0.082**	**0.006**
President Comm	Casualties	0.046	0.031	0.153
PS Comm	Casualties	0.098	0.066	0.142
Policy Comm	Count	-0.044	0.101	0.662
Non-Policy Comm	Count	-0.017	0.025	0.494
Policy Comm	Domestic	-0.039	0.120	0.748
Policy Comm	International	-0.064	0.131	0.624
Non-Policy Comm	Domestic	-0.005	0.030	0.861
Non-Policy Comm	International	-0.036	0.036	0.312
Policy Comm	Casualties	0.202	0.123	0.109
Non-Policy Comm	Casualties	0.022	0.032	0.494
Positive Comm Count	Count	0.016	0.018	0.384
Negative Comm Count	Count	-0.004	0.016	0.780
Positive Comm Count	Domestic	-0.004	0.022	0.838
Negative Comm Count	Domestic	-0.006	0.019	0.767
Positive Comm Count	**International**	**0.054**	**0.025**	**0.031**
Negative Comm Count	International	-0.003	0.020	0.881
Positive Comm Count	Casualties	0.027	0.023	0.232
Negative Comm Count	Casualties	-0.001	0.019	0.947
Net Sentiment Frequency	Count	-0.056	0.063	0.371
Net Sentiment Frequency	Domestic	-0.096	0.071	0.178
Net Sentiment Frequency	International	0.009	0.086	0.913
Net Sentiment Frequency	Casualties	0.035	0.079	0.658
Average Sentiment	**Count**	**1.088**	**0.498**	**0.029**
Average Sentiment	**Domestic**	**1.957**	**0.563**	**0.001**
Average Sentiment	International	-0.189	0.710	0.790
Average Sentiment	Casualties	-0.790	0.659	0.239
Net Sentiment Value	*Count*	*0.292*	*0.170*	*0.088*
Net Sentiment Value	**Domestic**	**0.545**	**0.190**	**0.004**
Net Sentiment Value	International	-0.184	0.254	0.468
Net Sentiment Value	Casualties	-0.111	0.210	0.600

Table B.4: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Reagan Administration

Reagan

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Count	-0.009	0.014	0.552
Comm Count	**Domestic**	**-0.048**	**0.023**	**0.035**
Comm Count	International	0.014	0.020	0.471
Comm Count	Casualties	0.026	0.037	0.487
Written Comm	Count	-0.055	0.049	0.256

Spoken Comm	Count	-0.006	0.019	0.745
Written Comm	Domestic	-0.010	0.073	0.891
Written Comm	International	-0.093	0.071	0.184
Spoken Comm	**Domestic**	**-0.073**	**0.030**	**0.014**
Spoken Comm	International	0.034	0.027	0.204
Written Comm	Casualties	-0.068	0.124	0.588
Spoken Comm	Casualties	0.036	0.050	0.470
President Comm	Count	-0.011	0.023	0.650
PS Comm	Count	-0.021	0.032	0.511
President Comm	Domestic	-0.051	0.036	0.156
President Comm	International	0.015	0.033	0.658
PS Comm	**Domestic**	**-0.109**	**0.050**	**0.029**
PS Comm	International	0.029	0.044	0.508
President Comm	Casualties	-0.056	0.060	0.359
PS Comm	Casualties	-0.026	0.084	0.759
Policy Comm	Count	-0.083	0.055	0.134
Non-Policy Comm	*Count*	*0.028*	*0.015*	*0.065*
Policy Comm	Domestic	-0.018	0.082	0.825
Policy Comm	International	-0.128	0.079	0.105
Non-Policy Comm	Domestic	-0.037	0.026	0.156
Non-Policy Comm	**International**	**0.058**	**0.020**	**0.003**
Policy Comm	**Casualties**	**0.291**	**0.132**	**0.031**
Non-Policy Comm	**Casualties**	**0.087**	**0.043**	**0.048**
Positive Comm Count	Count	0.018	0.016	0.254
Negative Comm Count	Count	-0.017	0.013	0.206
Positive Comm Count	Domestic	0.011	0.023	0.636
Negative Comm Count	Domestic	-0.011	0.020	0.594
Positive Comm Count	International	0.021	0.022	0.336
Negative Comm Count	International	-0.020	0.019	0.283
Positive Comm Count	Casualties	0.011	0.041	0.789
Negative Comm Count	Casualties	-0.022	0.034	0.524
Net Sentiment Frequency	*Count*	*-0.029*	*0.016*	*0.059*
Net Sentiment Frequency	Domestic	0.010	0.027	0.703
Net Sentiment Frequency	**International**	**-0.048**	**0.021**	**0.021**
Net Sentiment Frequency	Casualties	-0.096	0.046	0.670
Average Sentiment	Count	0.055	0.422	0.896
Average Sentiment	Domestic	0.854	0.622	0.169
Average Sentiment	International	-0.497	0.609	0.414
Average Sentiment	Casualties	0.616	1.143	0.591
Net Sentiment Value	Count	0.087	0.084	0.300
Net Sentiment Value	*Domestic*	*0.022*	*0.129*	*0.088*
Net Sentiment Value	International	0.007	0.120	0.956
Net Sentiment Value	Casualties	0.186	0.225	0.412

Table B.5: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Bush I Administration

Bush I

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Count	0.012	0.042	0.775
Comm Count	Domestic	0.037	0.053	0.485
Comm Count	International	0.004	0.053	0.940
Comm Count	Casualties	0.045	0.061	0.463
Written Comm	Count	-0.094	0.090	0.297
Spoken Comm	**Count**	**-0.093**	**0.044**	**0.035**
Written Comm	Domestic	-0.038	0.113	0.734
Written Comm	International	-0.111	0.116	0.338
Spoken Comm	Domestic	0.011	0.062	0.866
Spoken Comm	**International**	**-0.116**	**0.054**	**0.032**
Written Comm	Casualties	-0.051	0.128	0.691
Spoken Comm	**Casualties**	**-0.147**	**0.066**	**0.033**
President Comm	*Count*	*-0.094*	*0.055*	*0.087*
PS Comm	*Count*	*-0.131*	*0.069*	*0.057*
President Comm	Domestic	0.010	0.075	0.891
President Comm	*International*	*-0.120*	*0.068*	*0.080*
PS Comm	Domestic	-0.019	0.092	0.841
PS Comm	*International*	*-0.159*	*0.085*	*0.060*
President Comm	Casualties	-0.054	0.086	0.535
PS Comm	**Casualties**	**-0.274**	**0.094**	**0.006**
Policy Comm	Count	-0.017	0.063	0.788
Non-Policy Comm	*Count*	*0.071*	*0.039*	*0.066*
Policy Comm	Domestic	-0.058	0.084	0.487
Policy Comm	International	-0.007	0.078	0.925
Non-Policy Comm	Domestic	-0.012	0.056	0.825
Non-Policy Comm	*International*	*0.088*	*0.047*	*0.061*
Policy Comm	Casualties	0.058	0.095	0.540
Non-Policy Comm	Casualties	0.043	0.063	0.502
Positive Comm Count	Count	0.015	0.031	0.623
Negative Comm Count	Count	0.009	0.017	0.580
Positive Comm Count	Domestic	-0.020	0.041	0.628
Negative Comm Count	Domestic	0.016	0.021	0.435
Positive Comm Count	International	0.025	0.040	0.531
Negative Comm Count	International	0.006	0.021	0.777
Positive Comm Count	Casualties	0.058	0.047	0.224
Negative Comm Count	Casualties	-0.017	0.024	0.480
Net Sentiment Frequency	Count	-0.051	0.037	0.171
Net Sentiment Frequency	Domestic	-0.070	0.049	0.155
Net Sentiment Frequency	International	-0.045	0.046	0.329
Net Sentiment Frequency	Casualties	-0.037	0.058	0.525
Average Sentiment	Count	0.240	0.724	0.740
Average Sentiment	Domestic	1.296	0.879	0.140
Average Sentiment	International	-0.048	0.903	0.958
Average Sentiment	Casualties	0.062	1.057	0.954

Net Sentiment Value	Count	0.055	0.248	0.826
Net Sentiment Value	Domestic	0.411	0.269	0.127
Net Sentiment Value	International	-0.067	0.315	0.832
Net Sentiment Value	Casualties	0.071	0.341	0.836

Table B.6: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Clinton Administration

Clinton

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Count	-0.005	0.009	0.552
Comm Count	Domestic	-0.004	0.014	0.756
Comm Count	International	-0.006	0.012	0.615
Comm Count	Casualties	-0.022	0.019	0.233
Written Comm	Count	-0.022	0.040	0.572
Spoken Comm	Count	-0.005	0.009	0.570
Written Comm	Domestic	-0.010	0.062	0.871
Written Comm	International	-0.037	0.053	0.489
Spoken Comm	Domestic	-0.002	0.014	0.858
Spoken Comm	International	-0.008	0.012	0.500
Written Comm	**Casualties**	**-0.176**	**0.082**	**0.034**
Spoken Comm	Casualties	-0.001	0.019	0.953
President Comm	Count	-0.010	0.014	0.460
PS Comm	Count	-0.007	0.016	0.676
President Comm	Domestic	-0.016	0.022	0.479
President Comm	International	-0.004	0.019	0.813
PS Comm	Domestic	0.009	0.024	0.702
PS Comm	International	-0.027	0.022	0.217
President Comm	Casualties	-0.020	0.030	0.515
PS Comm	Casualties	-0.007	0.034	0.830
Policy Comm	Count	-0.002	0.030	0.948
Non-Policy Comm	Count	-0.003	0.009	0.704
Policy Comm	Domestic	-0.016	0.047	0.734
Policy Comm	International	0.017	0.039	0.660
Non-Policy Comm	Domestic	-0.010	0.014	0.495
Non-Policy Comm	International	0.002	0.011	0.883
Policy Comm	Casualties	-0.010	0.062	0.868
Non-Policy Comm	Casualties	0.025	0.019	0.196
Positive Comm Count	Count	-0.012	0.015	0.437
Negative Comm Count	Count	0.016	0.015	0.272
Positive Comm Count	Domestic	-0.020	0.024	0.394
Negative Comm Count	Domestic	0.024	0.023	0.394
Positive Comm Count	International	-0.016	0.021	0.941
Negative Comm Count	International	0.006	0.021	0.941
Positive Comm Count	Casualties	0.015	0.035	0.678
Negative Comm Count	Casualties	-0.036	0.033	0.281
Net Sentiment Frequency	Count	0.002	0.012	0.883

Net Sentiment Frequency	Domestic	0.010	0.019	0.592
Net Sentiment Frequency	International	-0.006	0.016	0.705
Net Sentiment Frequency	Casualties	-0.015	0.025	0.543
Average Sentiment	**Count**	**-2.807**	**0.947**	**0.003**
Average Sentiment	**Domestic**	**-3.248**	**1.488**	**0.029**
Average Sentiment	*International*	*-2.232*	*1.315*	*0.090*
Average Sentiment	Casualties	-0.195	2.164	0.929
Net Sentiment Value	Count	-0.074	0.068	0.273
Net Sentiment Value	Domestic	-0.132	0.104	0.206
Net Sentiment Value	International	-0.004	0.092	0.967
Net Sentiment Value	Casualties	0.056	0.144	0.699

Table B.7: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Bush II Administration

Bush II

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Count	0.007	0.005	0.132
Comm Count	Domestic	0.003	0.008	0.718
Comm Count	International	0.008	0.005	0.111
Comm Count	Casualties	0.010	0.008	0.229
Written Comm	Count	0.017	0.022	0.421
Spoken Comm	*Count*	*0.009*	*0.005*	*0.078*
Written Comm	Domestic	0.009	0.040	0.825
Written Comm	International	0.020	0.023	0.387
Spoken Comm	Domestic	0.010	0.009	0.288
Spoken Comm	International	0.007	0.006	0.202
Written Comm	Casualties	-0.033	0.040	0.408
Spoken Comm	Casualties	0.009	0.010	0.365
President Comm	*Count*	*0.015*	*0.009*	*0.088*
PS Comm	Count	0.010	0.008	0.170
President Comm	Domestic	0.025	0.016	0.115
President Comm	International	0.008	0.010	0.402
PS Comm	Domestic	0.004	0.013	0.761
PS Comm	International	0.012	0.008	0.150
President Comm	Casualties	0.001	0.018	0.954
PS Comm	Casualties	0.138	0.015	0.346
Policy Comm	**Count**	**0.114**	**0.047**	**0.017**
Non-Policy Comm	**Count**	**0.012**	**0.004**	**0.004**
Policy Comm	**Domestic**	**0.186**	**0.086**	**0.030**
Policy Comm	*International*	*0.096*	*0.054*	*0.076*
Non-Policy Comm	**Domestic**	**0.015**	**0.007**	**0.032**
Non-Policy Comm	*International*	*0.009*	*0.005*	*0.064*
Policy Comm	Casualties	-0.167	0.102	0.107
Non-Policy Comm	**Casualties**	**0.024**	**0.009**	**0.010**
Positive Comm Count	Count	-0.018	0.023	0.432
Negative Comm Count	Count	0.022	0.016	0.177

Positive Comm Count	Domestic	0.382	0.047	0.420
Negative Comm Count	Domestic	-0.037	0.031	0.236
Positive Comm Count	International	-0.037	0.024	0.115
Negative Comm Count	**International**	**0.041**	**0.016**	**0.012**
Positive Comm Count	Casualties	-0.049	0.046	0.291
Negative Comm Count	Casualties	0.040	0.031	0.198
Net Sentiment Frequency	Count	-0.010	0.010	0.318
Net Sentiment Frequency	Domestic	0.009	0.020	0.648
Net Sentiment Frequency	*International*	*-0.017*	*0.010*	*0.084*
Net Sentiment Frequency	Casualties	-0.024	0.019	0.216
Average Sentiment	Count	-0.266	1.437	0.853
Average Sentiment	Domestic	1.405	2.603	0.589
Average Sentiment	International	-0.944	1.544	0.541
Average Sentiment	Casualties	1.043	2.750	0.706
Net Sentiment Value	Count	-0.064	0.047	0.173
Net Sentiment Value	Domestic	0.018	0.091	0.847
Net Sentiment Value	*International*	*-0.092*	*0.050*	*0.064*
Net Sentiment Value	Casualties	-0.089	0.095	0.350

Table B.8: The coefficients, standard errors, and p-values for each of the primary relationships examined to test hypothesis 3 for the Obama Administration

Obama

Independent Variable	Dependent Variable	Coefficient	Standard Error	P Value
Comm Count	Count	-0.010	0.012	0.395
Comm Count	Domestic	-0.022	0.019	0.243
Comm Count	International	-0.007	0.014	0.608
Comm Count	Casualties	-0.007	0.079	0.669
Written Comm	*Count*	*0.075*	*0.039*	*0.056*
Spoken Comm	Count	0.003	0.011	0.756
Written Comm	*Domestic*	*0.107*	*0.065*	*0.099*
Written Comm	International	0.048	0.043	0.264
Spoken Comm	Domestic	0.156	0.018	0.387
Spoken Comm	International	-0.003	0.013	0.820
Written Comm	Casualties	-0.028	0.067	0.674
Spoken Comm	Casualties	0.000	0.017	0.997
President Comm	Count	0.169	0.026	0.514
PS Comm	Count	0.008	0.012	0.534
President Comm	Domestic	0.034	0.043	0.436
President Comm	International	0.006	0.029	0.851
PS Comm	Domestic	0.021	0.020	0.281
PS Comm	International	0.000	0.015	0.990
President Comm	Casualties	-0.008	0.042	0.847
PS Comm	Casualties	-0.001	0.020	0.976
Policy Comm	Count	-0.001	0.123	0.995
Non-Policy Comm	*Count*	*0.015*	*0.009*	*0.085*
Policy Comm	Domestic	-0.105	0.206	0.611

Policy Comm	International	0.111	0.137	0.416
Non-Policy Comm	Domestic	0.160	0.014	0.246
Non-Policy Comm	International	0.011	0.010	0.307
Policy Comm	Casualties	-0.137	0.189	0.472
Non-Policy Comm	Casualties	-0.007	0.015	0.627
Positive Comm Count	Count	0.052	0.045	0.241
Negative Comm Count	Count	0.000	0.018	0.998
Positive Comm Count	Domestic	-0.004	0.077	0.961
Negative Comm Count	Domestic	0.011	0.031	0.719
Positive Comm Count	International	0.045	0.050	0.364
Negative Comm Count	International	0.008	0.020	0.703
Positive Comm Count	Casualties	0.046	0.071	0.524
Negative Comm Count	Casualties	0.023	0.030	0.454
Net Sentiment Frequency	Count	0.003	0.018	0.880
Net Sentiment Frequency	Domestic	0.015	0.028	0.588
Net Sentiment Frequency	International	-0.005	0.021	0.810
Net Sentiment Frequency	Casualties	-0.003	0.028	0.909
Average Sentiment	Count	0.388	1.088	0.722
Average Sentiment	**Domestic**	**-3.952**	**1.839**	**0.032**
Average Sentiment	**International**	**2.639**	**1.195**	**0.027**
Average Sentiment	Casualties	0.488	1.687	0.773
Net Sentiment Value	Count	-0.012	0.069	0.858
Net Sentiment Value	**Domestic**	**-0.281**	**0.116**	**0.016**
Net Sentiment Value	**International**	**0.161**	**0.077**	**0.037**
Net Sentiment Value	Casualties	-0.028	0.111	0.801

Bibliography

Abramowitz, D., 2002. President, the Congress, and Use of Force: Legal and Political Considerations in Authorizing Use of Force against International Terrorism, The *Harvard International Law Journal*, *43*, p.71.

Amble, J.C., 2012. Combating terrorism in the new media environment. *Studies in Conflict & Terrorism*, *35*(5), pp.339-353.

Anderson, L.S., Chiricos, T.G. and Waldo, G.P., 1977. Formal and informal sanctions: A comparison of deterrent effects. *Social Problems*, *25*(1), pp.103-114.

Anderton, C.H. and Carter, J.R., 2005. On rational choice theory and the study of terrorism. *Defence and Peace Economics*, 16(4), pp.275-282.

Anstead, N. and O'Loughlin, B., 2015. Social media analysis and public opinion: The 2010 UK general election. *Journal of Computer-Mediated Communication*, *20*(2), pp.204-220.

Argomaniz, J. and Vidal-Diez, A., 2015. Examining Deterrence and Backlash Effects in Counter-Terrorism: The Case of ETA. *Terrorism and Political Violence*, *27*(1), pp.160-181.

Arthur, D. and Woods, J., 2013. The Contextual Presidency: The Negative Shift in Presidential Immigration Rhetoric. *Presidential Studies Quarterly*, *43*(3), pp.468-489.

Asal, V.H., Rethemeyer, R.K., Anderson, I., Stein, A., Rizzo, J. and Rozea, M., 2009. The softest of targets: A study on terrorist target selection. *Journal of Applied Security Research*, *4*(3), pp.258-278.

Avery, G., 2004. Bioterrorism, fear, and public health reform: Matching a policy solution to the wrong window. *Public Administration Review*, *64*(3), pp.275-288.

Badey, T.J., 1998. US anti-terrorism policy: The Clinton administration. *Contemporary Security Policy*, 19(2), pp.50-70.

Barber, C., 2016. The Dawn of American Counterterrorism Policy. Accessed at: https://www.nixonfoundation.org/2016/09/the-dawn-of-american-counterterrorism-policy/ on 1/11/2017.

Barna, C. and Dugan, C., 2016. The Ukrainian Hybrid Warfare and Neuroscience–Dismantling Some Facets of the Psychosphere. *Countering Hybrid Threats: Lessons Learned from Ukraine*, *128*, p.115.

Bartolucci, V., 2010. Analysing elite discourse on terrorism and its implications: the case of Morocco. *Critical Studies on Terrorism*, *3*(1), pp.119-135.

Bartolucci, V., 2012. Terrorism rhetoric under the Bush Administration: Discourses and effects. *Journal of Language and Politics*, *11*(4), pp.562-582.

Bartolucci, V., 2014. Security vs. Liberty: The Discourse on Terrorism in the United States and Morocco and Its Societal Effects. *Democracy and Security*, *10*(1), pp.1-21.

Beccaria, C., 1764a. *On Crimes and Punishments and Other Writings*. University of Toronto Press.

Beccaria, C., 1764b. An attempt at an analysis of smuggling. *translated in Baumol, W. and Goldfeld, S.(Eds)(1968), Precursors in Mathematical Economics, London School of Economics, London*.

Becker, G. 1968. Crime and Punishment: An Economic Approach. *Journal of Political Economy*, 76, pp. 169-217.

Benmelech, E., Berrebi, C. and Klor, E., 2010. Counter-suicide-terrorism: Evidence from house demolitions (No. w16493). National Bureau of Economic Research.

Bentham, J., 1789. The principles ofmorals and legislation. *London: Printed for T. Payne (Republished 1988. New York. Prometheus Books.)*.

Berggren, D.J. and Rae, N.C., 2006. Jimmy Carter and George W. Bush: Faith, foreign policy, and an evangelical presidential style. *Presidential Studies Quarterly*, *36*(4), pp.606-632.

Berrebi, C., 2009. The Economics of Terrorism and Counterterrorism: What Matters and Is Rational-Choice Theory Helpful?. *Social science for counterterrorism: Putting the pieces together*, pp.189-190.

Blumler, J.G. and Kavanagh, D., 1999. The third age of political communication: Influences and features. *Political communication*, *16*(3), pp.209-230.

Bockstette, C., 2008. *Jihadist terrorist use of strategic communication management techniques*. George C Marshall Center APO AE 09053 European Center For Security Studies.

Bockstette, C., 2009. Taliban and Jihadist terrorist use of strategic communication. *Connections: The Quarterly Journal*, *8*(3), pp. 1-27.

Bollen, K.A., 1989. A new incremental fit index for general structural equation models. *Sociological Methods & Research*, *17*(3), pp.303-316.

Bollen, K.A. and Pearl, J., 2013. Eight myths about causality and structural equation models. In *Handbook of causal analysis for social research* (pp. 301-328). Springer Netherlands.

Bouffard, J.A., 2002. The influence of emotion on rational decision making in sexual aggression. *Journal of Criminal Justice*, *30*(2), pp.121-134.

Bouffard, J., Exum, M.L. and Paternoster, R., 2000. Whither the beast? The role of emotions in a rational choice theory of crime. *Of crime and criminality: The use of theory in everyday life*, pp.159-178.

Boyle, M.J., 2013. The costs and consequences of drone warfare. *International Affairs*, *89*(1), pp.1-29.

Brace, P. and Hinckley, B., 1993. Presidential activities from Truman through Reagan: Timing and impact. *The Journal of Politics*, *55*(02), pp.382-398.

Braun, S. and Kvasnicka, M., 2013. National Sentiment and Economic Behavior Evidence From Online Betting on European Football. *Journal of Sports Economics*, *14*(1), pp.45-64.

Bray, R.M. and Noble, A.M., 1978. Authoritarianism and decisions of mock juries: Evidence of jury bias and group polarization. *Journal of Personality and Social Psychology*, *36*(12), p.1424.

Brinkley, D., 2007. Gerald R. Ford: The American Presidents Series: The 38th President, 1974-1977. Macmillan.

Brown, R., 2003. Spinning the war: political communications, information operations and public diplomacy in the war on terrorism. *War and the Media*, pp.87-100.

Buchanan, B., 2010 How Americans Judge Presidents: A Typology. Available at SSRN: https://ssrn.com/abstract=1661821 or http://dx.doi.org/10.2139/ssrn.1661821

Buckley, M. and Singh, R. eds., 2006. *The Bush doctrine and the war on terrorism: global responses, global consequences*. Routledge.

Bush, G. H. W., 1993. Remarks to Central Intelligence Agency Employees in Langley, Virginia. Delivered: 1/8/1993, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=20430, on 2/14/2017.

Bush, G. W., 2001. Address to the Nation on the Terrorist Attacks. Delivered: 9/11/2001, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=58057, on 2/14/2017.

Bush, G. W., 2002. Remarks at a Reception for Gubernatorial Candidate Bill Simon in Dana Point, California. Delivered: 8/23/2002, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/index.php?pid=73112&st=&st1=, on 2/14/2017.

Bush, G. W., 2003. Remarks to Military Personnel at Fort Carson, Colorado. Delivered: 11/24/2003, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=64913, on 2/14/2017.

Bush, G. W., 2007. Remarks on Energy in Wilmington, Delaware. Delivered: 1/24/2007, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/index.php?pid=24468, on 2/14/2017.

Byman, D., 2006. The decision to begin talks with terrorists: lessons for policymakers. *Studies in Conflict & Terrorism*, *29*(5), pp.403-414.

Campbell, J.E., 2005. Why Bush won the presidential election of 2004: Incumbency, ideology, terrorism, and turnout. *Political Science Quarterly*, 120(2), pp.219-241.

Canes-Wrone, B. and Shotts, K.W., 2004. The conditional nature of presidential responsiveness to public opinion. *American Journal of Political Science*, *48*(4), pp.690-706.

Canova, T.A., 2008. Legacy of the Clinton Bubble. *Dissent*, *55*(3), pp.41-50.

Carleton, D. and Stohl, M., 1985. The foreign policy of human rights: Rhetoric and reality from Jimmy Carter to Ronald Reagan. *Human Rights Quarterly*, *7*(2), pp.205-229.

Carmichael, S. and Piquero, A.R., 2004. Sanctions, perceived anger, and criminal offending. *Journal of Quantitative Criminology*, *20*(4), pp.371-393.

Carruthers, B.G., 1999. *City of capital: Politics and markets in the English financial revolution*. Princeton University Press.

Carson, J., 2014. Counterterrorism and radical eco-groups: A context for exploring the series hazard model. *Journal of Quantitative Criminology*,*30*(3), pp.485-504.

Carter, D., 2012. A blessing or a curse? State support for terrorist groups. International Organization, 66(1), pp.129-151.

Carter, J., 1978. Terrorist Attack in Israel Statement by the President. Delivered: 3/11/1978, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=30483, on 2/14/2017.

Carter, J., 1980a. Italy: State Dinner in Rome Toasts of the President and President Alessandro Pertini of Italy. Delivered: 6/20/1980, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=44633, on 2/14/2017.

Carter, J., 1980b. The President's Trip to Europe Remarks on Arrival at Andrews Air Force Base, Md. Delivered: 6/26/1980, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=44669, on 2/14/2017.

Ceaser, J.W., Thurow, G.E., Tulis, J. and Bessette, J.M., 1981. The rise of the rhetorical presidency. *Presidential Studies Quarterly*, *11*(2), pp.158-171

Ceron, A., Curini, L., Iacus, S.M. and Porro, G., 2014. Every tweet counts? How sentiment analysis of social media can improve our knowledge of citizens' political preferences with an application to Italy and France. *New Media & Society*, *16*(2), pp.340-358.

Clarke, R.V. and Cornish, D.B., 1985. Modeling offenders' decisions: A framework for research and policy. *Crime and justice*, pp.147-185.

Clarke, R.V. and Cornish, D.B., 2001. Rational choice. In: R. Paternoster and R. Bachman (eds.), *Explaining criminals and crime: Essays in contemporary theory*. Roxbury.

Clarke, R. and Newman, G.R., 2006. *Outsmarting the terrorists*. Greenwood Publishing Group.

Clinton, W. J., 1994. Remarks on the Observance of Earth Day. Delivered: 4/21/1994, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=50012, on 2/14/2017.

Clinton, W. J., 1995. Remarks on Counterterrorism Initiatives and an Exchange With Reporters. Delivered: 4/26/1995, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/index.php?pid=51282, on 2/14/2017.

Cohen, J.E., 1995. Presidential rhetoric and the Public Agenda. *American Journal of Political Science*, *39*(1), pp.87-107.

Cohen, J.E. and Hamman, J.A., 2003. The polls: Can presidential rhetoric affect the public's economic perceptions?. *Presidential Studies Quarterly*, *33*(2), pp.408-422.

Cole, D. and Dempsey, J.X., 2006. Terrorism and the constitution: Sacrificing civil liberties in the name of national security. The New Press.

Coleman, M.P., 2013. War on cancer and the influence of the medical-industrial complex. *Journal of Cancer Policy*, *1*(3), pp.e31-e34.

Congleton, R.D., 2002. Terrorism, interest-group politics, and public policy: curtailing criminal modes of political speech. *The Independent Review*, *7*(1), pp.47-67.

Coombs, W.T., 1999. Information and compassion in crisis responses: A test of their effects. *Journal of public relations research*, *11*(2), pp.125-142.

Coombs, W. (2007). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. Corporate Reputation Review, 10(3), 163-176.

Coombs, W.T., 2014. *Ongoing crisis communication: Planning, managing, and responding*. Sage Publications.

Coombs, W. (2015). The value of communication during a crisis: Insights from strategic communication research. Business Horizons, 58(2), 141-148.

Coombs, W.T. and Holladay, S.J., 2002. Helping crisis managers protect reputational assets initial tests of the Situational Crisis Communication Theory. *Management Communication Quarterly*, *16*(2), pp.165-186.

Cottam, M.L., 1992. The Carter Administration's Policy toward Nicaragua: Imagesz, Goals, and Tactics. *Political Science Quarterly*, *107*(1), pp.123-146.

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

Cui, H., Mittal, V. and Datar, M., 2006, July. Comparative experiments on sentiment classification for online product reviews. In *AAAI* (Vol. 6, pp. 1265-1270).

Dalisay, F.S., 2012. The spiral of silence and conflict avoidance: Examining antecedents of opinion expression concerning the US military buildup in the Pacific island of Guam. *Communication Quarterly, 60*(4), pp.481-503.

Dang-Xuan, L., Stieglitz, S., Wladarsch, J. and Neuberger, C., 2013. An investigation of influentials and the role of sentiment in political communication on Twitter

during election periods. *Information, Communication & Society*, *16*(5), pp.795-825.

Davis, J., 2003. The evolution of American grand strategy and the war on terrorism: Clinton and Bush perspectives. *White House Studies*, 3(4), pp.459-477.

De Castella, K., McGarty, C. and Musgrove, L., 2009. Fear appeals in political rhetoric about terrorism: An analysis of speeches by Australian Prime Minister Howard. *Political Psychology*, *30*(1), pp.1-26.

Delmont, M.F., 2016. *Why Busing Failed: Race, Media, and the National Resistance to School Desegregation* (Vol. 42). University of California Press.

DiGrazia, J., McKelvey, K., Bollen, J. and Rojas, F., 2013. More tweets, more votes: Social media as a quantitative indicator of political behavior. *PloS one*, *8*(11), p.e79449.

Dodds, P.S. and Danforth, C.M., 2010. Measuring the happiness of large-scale written expression: Songs, blogs, and presidents. *Journal of Happiness Studies*, *11*(4), pp.441-456.

Domke, D., Graham, E.S., Coe, K., Lockett John, S. and Coopman, T., 2006. Going public as political strategy: The Bush administration, an echoing press, and passage of the patriot act. *Political Communication*, *23*(3), pp.291-312.

Druckman, J.N. and Holmes, J.W., 2004. Does presidential rhetoric matter? Priming and presidential approval. *Presidential Studies Quarterly*, *34*(4), pp.755-778.

Dubey, G., Rana, A. and Ranjan, J., 2016. A research study of sentiment analysis and various techniques of sentiment classification. International Journal of Data Analysis Techniques and Strategies, 8(2), pp.122-142.

Dugan, L. and Chenoweth, E., 2012. Moving Beyond Deterrence: The Effectiveness of Raising the Expected Utility of Abstaining from Terrorism in Israel. *American Sociological Review*, *77*(4), pp.597-624.

Dugan, L. and Distler, M., 2016. Measuring Terrorism. *The Handbook of the Criminology of Terrorism*, p.189.

Dugan, L. and Fisher, D. (2015). Strategic Responses to the Boston Marathon Bombing. *Oxford Handbooks Online.* Retrieved 12 Jan. 2017, from http://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199935383.001.0001/oxfordhb-9780199935383-e-99.

Dugan, L., Huang, J.Y., LaFree, G. and McCauley, C., 2008. Sudden desistance from terrorism: the Armenian secret army for the liberation of Armenia and the

Justice Commandos of the Armenian Genocide. *Dynamics of Asymmetric Conflict*, 1(3), pp.231-249.

Dugan, L., LaFree, G. and Piquero, A., 2005. Testing a Rational Choice Model of Airline Hijackings. *Criminology*, *43*(4), pp.1031-1066.

Duriez, S.A., Cullen, F.T. and Manchak, S.M., 2014. Is Project HOPE Creating a False Sense of Hope: A Case Study in Correctional Popularity. *Federal Probation*, *78*, p.57.

Durlauf, S.N. and Nagin, D.S., 2011. Imprisonment and crime. *Criminology & Public Policy*, *10*(1), pp.13-54.

Eban, A.S., 1998. *Diplomacy for the next century* (p. 141). New Haven: Yale University Press.

Edwards, G.C., 2003. *On deaf ears: The limits of the bully pulpit*. Yale University Press.

Elhenfnawy, W., Wright, J., Kallepalli, K., Racheal, K., Gupta, A., Parimi, R., Shah, P. and Li, Y., 2016, October. What Differentiates News Articles with Short and Long Shelf Lives? A Case Study on News Articles at Bloomberg. com. In *Big Data and Cloud Computing (BDCloud), Social Computing and Networking (SocialCom), Sustainable Computing and Communications (SustainCom)(BDCloud-SocialCom-SustainCom), 2016 IEEE International Conferences on* (pp. 131-136). IEEE.

Enders, W., Sandler, T. and Gaibulloev, K., 2011. Domestic versus transnational terrorism: Data, decomposition, and dynamics. *Journal of Peace Research*, *48*(3), pp.319-337.

Erjavec, K. and Volcic, Z., 2006. Mapping the notion of "terrorism" in Serbian and Croatian newspapers. *Journal of Communication Inquiry*, *30*(4), pp.298-318.

Feldman, R., 2013. Techniques and applications for sentiment analysis. *Communications of the ACM*, *56*(4), pp.82-89.

Feste, K., 2011. *America responds to terrorism: conflict resolution strategies of Clinton, Bush, and Obama*. Springer.

Fisher, D. G. and Dugan, L. 2016a. Sociological and Criminological Explanations of Terrorism, In *The Oxford Handbook on Terrorism*, ed. Erica Chenoweth, Andreas Gofas, Richard English, and Stathis Kalyvas.

Fisher, D. and Dugan, L. 2016b. The Importance of Governments' Response to Natural Disasters to Reduce Terrorist Risk in the Philippines, Turkey, and the

United Kingdom. Intended for submission to: *Journal of Policy Analysis and Management*.

Fisher, D., and Dugan, L. (2017). *Criminological explanations for terrorism*. Oxford Bibliographies in Criminology. doi: 10.1093/obo/9780195396607-0209

Fisher, D.G. and Meitus, A.A., 2016. Uprooting or Sowing Violence?: Coca Eradication and Guerrilla Violence in Colombia. *Studies in Conflict & Terrorism*, pp.1-18.

Fleischer, A., 2001. Press Briefing by Ari Fleischer. Delivered: 10/10/2001, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/index.php?pid=47579, on 3/17/2017.

Fleisher, R. and Bond, J.R., 1983. Assessing presidential support in the House: lessons from Reagan and Carter. *The Journal of Politics*, *45*(03), pp.745-758.

Ford, G., 1976a. Statement on Signing the International Terrorism Prevention Bill. Delivered: 10/10/1976, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=6438, on 2/14/2017.

Ford, G., 1976b. Statement on Nuclear Policy. Delivered: 10/28/1976, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=6561, on 2/14/2017.

Frey, B.S. and Luechinger, S., 2003. How to fight terrorism: alternatives to deterrence. *Defence and Peace Economics*, *14*(4), pp.237-249.

Gaibulloev, K. and Sandler, T., 2009. The impact of terrorism and conflicts on growth in Asia. *Economics & Politics*, *21*(3), pp.359-383.

Gallup Analytics, 2016, accessed at: http://www.gallup.com/185462/gallup-daily-work.aspx?utm_source=METHODOLOGY&utm_medium=topic&utm_campaign=tiles

Gamson W. A., 1968. *Power and discontent*. Dorsey Press.

Geerken, M. and Gove, W.R., 1977. Deterrence, overload, and incapacitation: An empirical evaluation. *Social Forces*, *56*(2), pp.424-447.

Gershkoff, A. and Kushner, S., 2005. Shaping public opinion: The 9/11-Iraq connection in the Bush administration's rhetoric. *Perspectives on Politics*, 3(03), pp.525-537.

Gibbs, J.P., 1968. Crime, punishment, and deterrence. *The Southwestern Social Science Quarterly*, pp.515-530.

Gibbs, J.P., 1975. *Crime, punishment, and deterrence.* Elsevier.

Gibbs, J.P., 1989. Conceptualization of terrorism. *American Sociological Review*, pp.329-340.

Gilboa, E., 1990. Effects of televised presidential addresses on public opinion: President Reagan and terrorism in the Middle East. *Presidential Studies Quarterly*, pp.43-53.

Gollob, H.F., & Reichardt, C.S. 1991. Interpreting and estimating indirect effects assuming time lags really matter. In L.M. Collins & J.L. Horn (Eds.), Best methods for the analysis of change: Recent advances, unanswered questions, future directions. Washington, DC: American Psychological Association.

Hahn, D.F., 2003. *Political Communication: Rhetoric. Government, and Citizens.* State College, Pennsylvania: Strata Publishing, Inc.

Hall, P.M. and Hewitt, J.P., 1970. The quasi-theory of communication and the management of dissent. *Social Problems*, *18*(1), pp.17-27.

Hamm, M.S., 2004. Apocalyptic violence: The seduction of terrorist subcultures. *Theoretical Criminology*, *8*(3), pp.323-339.

Haridakis, P.M., and Rubin, A.M., 2005. Third-person effects in the aftermath of terrorism. *Mass Communication and Society, 8*(1), pp.39-59.

Haviland, A.M., Jones, B.L. and Nagin, D.S., 2011. Group-based trajectory modeling extended to account for nonrandom participant attrition. *Sociological Methods & Research*, 40(2), pp.367-390.

Hawken, A. and Kleiman, M., 2009. Managing drug involved probationers with swift and certain sanctions: Evaluating Hawaii's HOPE: Executive summary. *Washington, DC: National Criminal Justice Reference Services*.

Hayduk, L., Cummings, G., Boadu, K., Pazderka-Robinson, H. and Boulianne, S., 2007. Testing! testing! one, two, three–Testing the theory in structural equation models!. *Personality and Individual Differences*, *42*(5), pp.841-850.

Hayes, M. and Nardulli, P.F., 2011. SPEEDs Societal Stability Protocol and the Study of Civil Unrest: an Overview and Comparison with Other Event Data Projects, October 2011. *Cline Center for Democracy University of Illinois at Urbana-*

Hayes, M. and Nardulli, P.F., 2013. The SPEED Projects Societal Stability Protocol: An Overview, white paper. *Cline Center for Democracy, Univ. of Illinois at Urbana-Champaign*.

Hetherington, M.J. and Nelson, M., 2003. Anatomy of a rally effect: George W. Bush and the war on terrorism. *Political Science and Politics*, 36(01), pp.37-42.

Hinckley, R.H., 1989. American opinion toward terrorism: the Reagan years. *Studies in Conflict & Terrorism*, *12*(6), pp.387-399.

Hoffman, B., 2008. *Inside terrorism*. Columbia University Press.

Holcomb, J.B., McMullin, N.R., Pearse, L., Caruso, J., Wade, C.E., Oetjen-Gerdes, L., Champion, H.R., Lawnick, M., Farr, W., Rodriguez, S. and Butler, F.K., 2007. Causes of death in US Special Operations Forces in the global war on terrorism: 2001–2004. *Annals of Surgery*, 245(6), pp.986-991.

Hornstein, H.A., Masor, H.N., Sole, K. and Heilman, M., 1971. Effects of sentiment and completion of a helping act on observer helping: A case for socially mediated Zeigarnik effects. Journal of Personality and Social Psychology, 17(1), p.107.

Hughes, L., 2009. The four 'R's of energy security. *Energy policy*, *37*(6), pp.2459-2461.

Jackson, R., 2006. Genealogy, ideology, and counter-terrorism: Writing wars on terrorism from Ronald Reagan to George W. Bush Jr. *Studies in Language & Capitalism*, *1*(1), pp.163-193.

Jackson, R., 2011. Culture, identity and hegemony: Continuity and (the lack of) change in US counterterrorism policy from Bush to Obama. *International Politics*, *48*(2-3), pp.390-411.

Jacobs, B.A., 2010. Deterrence and deterrability. *Criminology*, *48*(2), pp.417-441.

Jacobson, M., 2010. Terrorist financing and the Internet. *Studies in Conflict & Terrorism*, 33(4), pp.353-363.

Jamieson, K.H., 2007. Justifying the war in Iraq: What the Bush administration's uses of evidence reveal. *Rhetoric & Public Affairs*, *10*(2), pp.249-273.

Jenkins, B.M., 1982. Statements about terrorism. *The Annals of the American Academy of Political and Social Science*, 463(1), pp.11-23.

Jervis, R., 2015. Perception and misperception in international politics. Princeton University Press.

Jindapon, P. and Neilson, W.S., 2009. The impact of societal risk attitudes on terrorism and counterterrorism. *Economics & Politics*, 21(3), pp.433-451.

Jin, H.S. and Lutz, R.J., 2013. The typicality and accessibility of consumer attitudes toward television advertising: Implications for the measurement of attitudes toward advertising in general. *Journal of advertising*, *42*(4), pp.343-357.

Johnson, R. and Raphael, S., 2012. How much crime reduction does the marginal prisoner buy?. *Journal of Law and Economics*, *55*(2), pp.275-310.

Jöreskog, K.G., 1993. Testing structural equation models. *Sage focus editions*, *154*, pp.294-294.

Joyner, C.C., 1988. In search of an anti-terrorism policy: Lessons from the Reagan era. *Studies in Conflict & Terrorism*, *11*(1), pp.29-42.

Jugherr, A., Ju̇rgens, P., & Schoen, H. (2012). Why the pirate party won the German election of 2009 or the trouble with predictions: A response to Tumasjan A, Sprenger TO, Sander PG and Welpe IM ''Predicting elections with twitter: What 140 characters reveal about political sentiment''. Social Science Computer Review. 30, 229–234

Kahn, R. and Kellner, D., 2004. New media and internet activism: from the 'Battle of Seattle'to blogging. *New media & society*, *6*(1), pp.87-95.

Kam, C.D. and Kinder, D.R., 2007. Terror and ethnocentrism: Foundations of American support for the war on terrorism. *Journal of Politics*, *69*(2), pp.320-338.

Kaniasty, K. and Norris, F.H., 2004. Social support in the aftermath of disasters, catastrophes, and acts of terrorism: Altruistic, overwhelmed, uncertain, antagonistic, and patriotic communities. *Bioterrorism: Psychological and public health interventions*, *3*, pp.200-229.

Kao, A., and Poteet, S.R., 2007. *Natural language processing and text mining*. Springer.

Keck, M.E. and Sikkink, K., 1998. Transnational advocacy networks in the movement society. *The social movement society: contentious politics for a new century*, pp.217-238.

Kellner, D., 2004. 9/11, spectacles of terror, and media manipulation: A critique of Jihadist and Bush media politics. *Critical Discourse Studies*, *1*(1), pp.41-64.

Kernell, S. 2007. *Going public: New strategies of presidential leadership*, Washington, DC: CQ Press.

Kim, S. and Liu, B.F., 2012. Are all crises opportunities? A comparison of how corporate and government organizations responded to the 2009 flu pandemic. *Journal of Public Relations Research*, *24*(1), pp.69-85.

Kinder, D.R., 1978. Political person perception: The asymmetrical influence of sentiment and choice on perceptions of presidential candidates. Journal of Personality and Social Psychology, 36(8), p.859.

Kiousis, S. and Strömbäck, J., 2010. The White House and public relations: Examining the linkages between presidential communications and public opinion. *Public Relations Review*, *36*(1), pp.7-14.

Kleiman, M., 2009. *When brute force fails: How to have less crime and less punishment*. Princeton University Press.

Kleiman, M.A., Kilmer, B. and Fisher, D.T., 2014. Response to Stephanie A. Duriez, Francis T. Cullen, and Sarah M. Manchak. *Federal Probation: A Journal of Correctional Philosophy and Practice*, *78*(2), pp.71-74.

Kline, R.B., 2016. *Principles and practice of structural equation modeling*. Guilford publications.

Knott, S.F., 2005. *Rush to Judgment: George W. Bush, the War on Terror, and His Critics*. University Press of Kansas.

Koper, C.S., 1995. Just enough police presence: Reducing crime and disorderly behavior by optimizing patrol time in crime hot spots. *Justice Quarterly*, *12*(4), pp.649-672.

Kruglanski, A.W., Chen, X., Dechesne, M., Fishman, S. and Orehek, E., 2009. Fully committed: Suicide bombers' motivation and the quest for personal significance. *Political Psychology*, *30*(3), pp.331-357.

Kuehl, R.A., 2012. The rhetorical presidency and "accountability" in education reform: Comparing the presidential rhetoric of Ronald Reagan and George W. Bush. *Southern Communication Journal, 77*(4), pp.329-348.

Kurov, A., 2008. Investor sentiment, trading behavior and informational efficiency in index futures markets. *Financial Review*, *43*(1), pp.107-127.

Kydd, A. and Walter, B., 2006. The strategies of terrorism. International Security, 31(1), pp.49-80.

LaFree, G., 2010. The global terrorism database: Accomplishments and challenges. *Perspectives on Terrorism*, *4*(1), 24-46.

LaFree, G. and Ackerman, G., 2009. The empirical study of terrorism: Social and legal research.

LaFree, G. and Dugan, L., 2007. Introducing the global terrorism database. *Terrorism and Political Violence*, *19*(2), pp.181-204.

LaFree, G., Dugan, L., Fogg, H.V. and Scott, J., 2006. *Building a Global Terrorism Database*.

LaFree, G., Dugan, L. and Korte, R., 2009. The impact of British counterterrorist strategies on political violence in Northern Ireland: comparing deterrence and backlash models. *Criminology*, *47*(1), pp.17-45.

LaFree, G., Yang, S.M. and Crenshaw, M., 2009. Trajectories of terrorism. *Criminology & Public Policy*, *8*(3), pp.445-473.

Landau et al 2004 Landau, M.J., Solomon, S., Greenberg, J., Cohen, F., Pyszczynski, T., Arndt, J., Miller, C.H., Ogilvie, D.M. and Cook, A., 2004. Deliver us from evil: The effects of mortality salience and reminders of 9/11 on support for President George W. Bush. *Personality and Social Psychology Bulletin*, *30*(9), pp.1136-1150.

Laqueur, W., 1999. *The new terrorism: Fanaticism and the arms of mass destruction*. Oxford.

Lasswell, H.D., 1927. The theory of political propaganda. *The American Political Science Review*, *21*(3), pp.627-631.

Le Billon, P. and El Khatib, F., 2004. From free oil to 'freedom oil': Terrorism, war and US geopolitics in the Persian Gulf. *Geopolitics*, 9(1), pp.109-137.

L'Etang, J., 2009. Public relations and diplomacy in a globalized world: An issue of public communication. *American Behavioral Scientist*, *53*(4), pp.607-626.

Le Vine, V.T. and Salert, B.A., 1996. Does a coercive official response deter terrorism? The case of the PLO. *Terrorism and Political Violence*, *8*(1), pp.22-49.

Lemyre, L., Lee, J.E., Turner, M.C. and Krewski, D., 2007. Terrorism preparedness in Canada: a public survey on perceived institutional and individual response to terrorism. *International Journal of Emergency Management*, *4*(2), pp.296-315.

Levitt, S.D., 1998. Why do increased arrest rates appear to reduce crime: deterrence, incapacitation, or measurement error?. *Economic inquiry*, *36*(3), pp.353-372.

Lewis, C.W., 2000. The terror that failed: Public opinion in the aftermath of the bombing in Oklahoma City. *Public Administration Review*, *60*(3), pp.201-210.

Lewis, J., 2005. Language wars: The role of media and culture in global terror and political violence. Pluto Press.

Lichbach, M.I., 1987. Deterrence or escalation? The puzzle of aggregate studies of repression and dissent. *Journal of Conflict Resolution*, *31*(2), pp.266-297.

Lilly, J.R., Cullen, F.T. and Ball, R.A., 2016. *Criminological theory: Context and consequences*. Sage Publications.

Liu, B., 2011. Opinion mining and sentiment analysis. In *Web Data Mining* (pp. 459-526). Springer Berlin Heidelberg.

Liu, B., 2012. Sentiment analysis and opinion mining. *Synthesis lectures on human language technologies*, *5*(1), pp.1-167.

Liu, B. and Briones, R. 2012. New media, public relations, and terrorism resilience. In S. Duhé (Ed.), New media in public relations (3rd ed., pp. 126-133). New York, NY: Peter Lang.

Loughran, T.A., Paternoster, R., Piquero, A.R. and Pogarsky, G., 2011. On ambiguity in perceptions of risk: implications for criminal decision making and deterrence. *Criminology*, 49(4), pp.1029-1061.

Loewenstein, G., 1996. Out of control: Visceral influences on behavior. *Organizational behavior and human decision processes*, *65*(3), pp.272-292.

Lyall, J., 2009. Does Indiscriminate Violence Incite Insurgent Attacks?. *Journal of Conflict Resolution*, *53*(3), pp.331-362.

Lynch, J. P. 2011. Implications of opportunity theory for combating terrorism. In Criminologists on terrorism and homeland security. Edited by Brian Forst, Jack R. Greene, and James P. Lynch, 151–182. Cambridge Studies in Criminology. Cambridge, UK: Cambridge Univ. Press.

MacCallum, R.C. and Austin, J.T., 2000. Applications of structural equation modeling in psychological research. *Annual review of psychology*, *51*(1), pp.201-226.

Matsueda, R.L., Kreager, D.A. and Huizinga, D., 2006. Deterring delinquents: A rational choice model of theft and violence. *American Sociological Review*, *71*(1), pp.95-122.

Mayhew, L.H., 1997. *The new public: Professional communication and the means of social influence*. Cambridge University Press.

Maxwell, S.E., Cole, D.A. and Mitchell, M.A., 2011. Bias in cross-sectional analyses of longitudinal mediation: Partial and complete mediation under an autoregressive model. *Multivariate Behavioral Research*, *46*(5), pp.816-841.

McCauley, C., 2006. Jujitsu politics: Terrorism and response to terrorism. *Collateral damage: The psychological consequences of America's war on terrorism*, pp.109-128.

McCrisken, T., 2011. Ten years on: Obama's war on terrorism in rhetoric and practice. *International Affairs*, *87*(4), pp.781-801.

McMillan, J. and Ragan, S., 1983. The presidential press conference: A study in escalating institutionalization. *Presidential Studies Quarterly*, pp.231-241.

Mesquita, E. and Dickson, E.S., 2007. The propaganda of the deed: Terrorism, counterterrorism, and mobilization. *American Journal of Political Science*, *51*(2), pp.364-381.

Miller, C.H. and Landau, M.J., 2005. Communication and terrorism: A terror management theory perspective. *Communication Research Reports*, *22*(1), pp.79-88.

Millsap, R.E., 2007. Structural equation modeling made difficult. *Personality and Individual Differences*, *42*(5), pp.875-881.

Moon, M.J., 2002. The evolution of e-government among municipalities: rhetoric or reality?. *Public Administration Review*, *62*(4), pp.424-433.

Morris, N.A., 2015. Target suitability and terrorism events at places. *Criminology & Public Policy*, *14*(2), pp.417-426.

Müller, J., 2005. Simplicity and spook: Terrorism and the dynamics of threat exaggeration. *International Studies Perspectives*, *6*(2), pp.208-234.

Naftali, T., 2004. US counterterrorism before bin Laden. *International Journal*, *60*(1), pp.25-34.

Nagin, D.S., 1998. Criminal deterrence research at the outset of the twenty-first century. *Crime and justice*, pp.1-42.

Nagin, D.S., 2007. Moving choice to center stage in criminological research and theory: the American Society of Criminology 2006 Sutherland address. *Criminology*, *45*(2), pp.259-272.

Nagin, D.S., 2013. Deterrence: a review of the evidence by a criminologist for economists. *Annual Review of Economics, 5*:83-105

Nagin, D.S., Solow, R.M. and Lum, C., 2015. Deterrence, criminal opportunities, and police. *Criminology*, *53*(1), pp.74-100.

National Research Council, 1978. Panel on Research on Deterrent and Incapacitative Effects, Blumstein, A., Cohen, J. and Nagin, D., 1978. Deterrence and incapacitation: Estimating the effects of criminal sanctions on crime rates (p. 431). Washington, DC: National Academy of Sciences.

Nesser, P., 2008. How did Europe's global Jihadis obtain training for their militant causes?. *Terrorism and Political Violence*, *20*(2), pp.234-256.

Neumann, P.R., 2007. Negotiating with terrorists. *Foreign Affairs*, 86, pp.128-138.

Nixon, R., 1973. The President's News Conference. Delivered: 3/2/1973, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=4123, on 2/14/2017.

Nixon, R.M., 1978. RN: The Memoirs of a President. *New York: Grossett & Dunlap*.

Obama, B., 2009a. G8 Declaration on Counter Terrorism. Delivered: 7/8/2009, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/index.php?pid=86411, on 2/14/2017.

Obama, B., 2009b. Remarks at the United States Military Academy at West Point, New York. Delivered: 12/1/2009, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/index.php?pid=86948&st=domestic+unit y+and+international+legitimacy&st1

Obama, B., 2015. Remarks to the United Nations General Assembly in New York City. Delivered: 9/28/2015, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=110848, on 2/14/2017.

Ogun, M.N., 2012. Terrorist use of internet: possible suggestions to prevent the usage for terrorist purposes. *Journal of Applied Security Research*, *7*(2), pp.203-217.

O'Hair, R. Heath, K. Ayotte, and Ledlow, G., 2008 "The Communication and Rhetoric of Terrorism" Terrorism: Communication and Rhetorical Perspectives. Ed. H. Dan O'Hair; Robert Heath; Kevin Ayotte; & Gerald Ledlow. Cresskill, New Jersey: Hampton Press. isbn:1572737352

Oliver, W.M., 1998. Presidential rhetoric on crime and public opinion. *Criminal Justice Review*, *23*(2), pp.139-160.

Oliver, W.M., Hill, J. and Marion, N.E., 2011. When the President Speaks…: An Analysis of Presidential Influence Over Public Opinion Concerning the War on Drugs. *Criminal Justice Review*, *36*(4), pp.456-469.

Olson, J., Ouyang, Y., Poe, J., Trantham, A. and Waterman, R.W., 2012. The teleprompter presidency: Comparing Obama's campaign and governing rhetoric. *Social Science Quarterly*, *93*(5), pp.1402-1423.

Osuri, G. and Banerjee, B., 2004. White diasporas: Media representations of September 11 and the unbearable whiteness of being in Australia. *Social Semiotics*, *14*(2), pp.151-171.

Palfrey, T.R. and Poole, K.T., 1987. The relationship between information, ideology, and voting behavior. *American Journal of political science*, pp.511-530.

Papacharissi, Z. and de Fatima Oliveira, M., 2008. News frames terrorism: A comparative analysis of frames employed in terrorism coverage in US and UK newspapers. *The International Journal of Press/Politics*, *13*(1), pp.52-74.

Pang, B. and Lee, L., 2008. Opinion mining and sentiment analysis. *Foundations and trends in information retrieval*, *2*(1-2), pp.1-135.

Palfrey, T.R. and Poole, K.T., 1987. The relationship between information, ideology, and voting behavior. *American Journal of political science*, pp.511-530.

Patel, K., 2004. Presidential rhetoric and the strategy of going public: President Clinton and the health care reform. *Journal of health & social policy*, *18*(2), pp.21-42.

Paternoster, R., 1989a. Decisions to participate in and desist from four types of common delinquency: Deterrence and the rational choice perspective. *Law and Society Review*, pp.7-40.

Paternoster, R., 1989b. Absolute and restrictive deterrence in a panel of youth: Explaining the onset, persistence/desistance, and frequency of delinquent offending. *Social Problems*, *36*(3), pp.289-309.

Paternoster, R. and Fisher, D. 2017. *The Foundation and Emergence of Classical Thought in Criminological Theory: A Brief Philosophical History*. In ed. Ruth A. Triplett, Wiley Handbook of History and Philosophy of Criminology.

Payne, K., 2009. Winning the battle of ideas: Propaganda, ideology, and terror. *Studies in Conflict & Terrorism*, *32*(2), pp.109-128.

Perry, S., Apel, R., Newman, G.R. and Clarke, R.V., The Situational Prevention of Terrorism: An Evaluation of the Israeli West Bank Barrier. *Journal of Quantitative Criminology*, pp.1-25.

Posner, P., 2007. The politics of coercive federalism in the Bush era. *Publius: The Journal of Federalism*, 37(3), pp.390-412.

Randahl, D., 2016. Terrorism and public opinion: The effects of terrorist attacks on the popularity of the president of the United States. *Terrorism and Political Violence*, pp.1-11.

Reagan, R., 1982. Exchange With Reporters on Terrorism. Delivered: 1/18/1982, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/index.php?pid=42387, on 2/14/2017.

Reagan, R., 1985. Remarks at the Annual Convention of the American Bar Association. Delivered: 7/1/1985, American Presidency Project, accessed at: http://www.presidency.ucsb.edu/ws/?pid=38854, on 2/14/2017.

Reagan, R., 1987. The new network of terrorist states. *Studies in Conflict & Terrorism*, *9*(2), pp.101-112.

Reese, S.D. and Buckalew, B., 1995. The militarism of local television: The routine framing of the Persian Gulf War. *Critical Studies in Media Communication*, 12(1), pp.40-59.

Richards, B., 2004. Terrorism and public relations. *Public Relations Review*,*30*(2), pp.169-176.

Ross, J.I. and Gurr, T.R., 1989. Why terrorism subsides: A comparative study of Canada and the United States. *Comparative Politics*, *21*(4), pp.405-426.

Rothe, D. and Muzzatti, S.L., 2004. Enemies everywhere: Terrorism, moral panic, and US civil society. *Critical Criminology*, 12(3), pp.327-350.

Rottinghaus, B. and Maier, J., 2007. The Power of Decree Presidential Use of Executive Proclamations, 1977-2005. *Political Research Quarterly*, *60*(2), pp.338-343.

Ruby, C.L., 2002. The definition of terrorism. *Analyses of Social Issues and Public Policy*, *2*(1), pp.9-14.

Rummel, R.J., 1991. *The Conflict Helix: Principles and Procedures of Interpersonal, Social, and International Conflict and Cooperation*. Transaction Publishers.

Sanders, E. and Van Den Bosch, A., 2013. Relating Political Party Mentions on Twitter with Polls and Election Results. In *DIR* (pp. 68-71).

Sandler, T. and Arce, D.G., 2007. Terrorism: a game-theoretic approach. *Handbook of defense economics*, *2*, pp.775-813.

Sandler, T. and Enders, W., 2008. Economic consequences of terrorism in developed and developing countries. *Terrorism, economic development, and political openness*, *17*.

Sang, E.T.K. and Bos, J., 2012, April. Predicting the 2011 dutch senate election results with twitter. In *Proceedings of the Workshop on Semantic Analysis in Social Media* (pp. 53-60). Association for Computational Linguistics.

Santifort, C., Sandler, T. and Brandt, P.T., 2013. Terrorist attack and target diversity: Changepoints and their drivers. *Journal of Peace Research*, *50*(1), pp.75-90.

Sarfo, E. and Krampa, E.A., 2013. Language at war: A critical discourse analysis of speeches of Bush and Obama on terrorism. *International Journal of Social Sciences and Education*, *3*(2), pp.378-390.

Schaefer, T.M., 1997. Persuading the persuaders: Presidential speeches and editorial opinion. *Political Communication, 14*(1), pp.97-111.

Scheufele, D.A., 2000. Agenda-setting, priming, and framing revisited: Another look at cognitive effects of political communication. *Mass Communication & Society*, *3*(2-3), pp.297-316.

Schudson, M., 2003. Click Here for Democracy: A History and Critique of an Information Based Model of Citizenship, pp. 49-59.

Schweiger, E., 2015. The risks of remaining silent: international law formation and the EU silence on drone killings. Global Affairs, 1(3), pp.269-275.Sederberg, P.C., 1995. Conciliation as counter-terrorist strategy. *Journal of Peace Research*, *32*(3), pp.295-312.

Sentiment Analysis Online, 2016. *Sentiment Analysis Engine*. Accessed at: http://www.sentimentanalysisonline.com/ on 1/11/2017.

Shah, R. and Goldstein, S.M., 2006. Use of structural equation modeling in operations management research: Looking back and forward. *Journal of Operations Management*, *24*(2), pp.148-169.

Sharrock D. (2001), 'Real IRA scores propaganda coup with BBC bomb', Daily Telegraph, 5 March 2001.

Sherman, L.W., 1990. Police Crackdowns: Initial and Residual Deterrence. *Crime and Justice*, *12*, pp.1-48.

Shibutani, T., 1966. *Improvised news: A sociological study of rumor*. Ardent Media.

Shpiro S. (2001), Medien und Terrorismus, *Internationale Politik 56*(12), pp. 19–24.

Shpiro, S., 2002. Conflict media strategies and the politics of counter-terrorism. *Politics*, *22*(2), pp.76-85.

Sigelman, L. and Sigelman, C.K., 1981. Presidential Leadership of Public Opinion: From 'Benevolent Leader' to Kiss of Death?. *Experimental Study of Politics*, *7*(3), pp.1-22. Simon, H.A., 1982. *Models of bounded rationality: Empirically grounded economic reason* (Vol. 3). MIT press.

Simon, H.A., 1982. *Models of bounded rationality: Empirically grounded economic reason*. MIT press.

Sloan, S., 1993. US anti-terrorism policies: Lessons to be learned to meet an enduring and changing threat. *Terrorism and Political Violence*, *5*(1), pp.106-131.

Smith, B., Gruenewald, J., Damphousse, K., Roberts, P., Ratcliff, K., Klein, B., and Brecht, I., 2017. *Sequencing Terrorists' Precursor Behaviors: A crime Specific Analysis*. Final Summary Overview: National Institute of Justice.

Soares Jr, J.A., 2006. Strategy, Ideology, and Human Rights: Jimmy Carter Confronts the Left in Central America, 1979–1981. *Journal of Cold War Studies*, *8*(4), pp.57-91.

Spragens, W.C. and Terwoord, C.A., 1980. *From spokesman to press secretary: White House media operations*. University Press of America.

Stafford, M.C. and Warr, M., 1993. A reconceptualization of general and specific deterrence. *Journal of research in crime and delinquency*, *30*(2), pp.123-135.

Stepanova, E., 2011. The role of information communication technologies in the "arab spring". *Ponars Eurasia*, *15*, pp.1-6.

Storie, L.K., Madden, S.L. and Liu, B.F., 2014. The death of bin Laden: How Russian and US media frame counterterrorism. *Public Relations Review*, *40*(3), pp.429-439.

Strömberg, D., 2004. Mass media competition, political competition, and public policy. *The Review of Economic Studies*, *71*(1), pp.265-284.

Sundstrom, B., Lyn Briones, R. and Janoske, M., 2013. Expecting the unexpected: Non-profit women's organizations' media responses to anti-abortion terrorism. *Journal of Communication Management*, *17*(4), pp.341-363.

Tedin, K., Rottinghaus, B. and Rodgers, H., 2011. When the President Goes Public The Consequences of Communication Mode for Opinion Change across Issue Types and Groups. *Political Research Quarterly*, *64*(3), pp.506-519.

Teh, P.L., Rayson, P., Pak, I. and Piao, S., 2015, December. Sentiment analysis tools should take account of the number of exclamation marks!!!. In *Proceedings of the 17th International Conference on Information Integration and Web-based Applications & Services* (p. 35). ACM.

Teh, P.L., Rayson, P.E., Pak, I., Piao, S.S. and Yeng, S.M., 2016, April. Reversing the polarity with emoticons. In *21st International Conference on Applications of Natural Language to Information Systems*.

Tittle, C.R., 1969. Crime rates and legal sanctions. *Social Problems*, *16*(4), pp.409-423.

Towle, M.J., 1997. On behalf of the president: Four factors affecting the success of the presidential press secretary. *Presidential Studies Quarterly*, *27*(2), pp.297-319.

Trier, M. and Hillmann, R., 2017. Does Sentiment Among Users in Online Social Networks Polarize or Balance Out? A Sociological Perspective Using Social Network Analysis. In *Cyberemotions* (pp. 233-253). Springer International Publishing.

Toros, H., 2008. 'We don't negotiate with terrorists!': Legitimacy and complexity in terrorist conflicts. *Security Dialogue*, *39*(4), pp.407-426.

Turek, L.F., 2014. Religious Rhetoric and the Evolution of George W. Bush's Political Philosophy. *Journal of American Studies*, 48(04), pp.975-998.

Turk, A., 1982. Social dynamics of terrorism. *The Annals of the American Academy of Political and Social Science*, *463*(1), pp.119-128.

US Department of State, 2006. *National Strategy for Combating Terrorism*. Accessed at: https://2001-2009.state.gov/s/ct/rls/wh/71803.htm on 1/11/2017.

Utz, S., Schultz, F. and Glocka, S., 2013. Crisis communication online: How medium, crisis type and emotions affected public reactions in the Fukushima Daiichi nuclear disaster. *Public Relations Review*, *39*(1), pp.40-46.

Verger, P., Dab, W., Lamping, D.L., Loze, J.Y., Deschaseaux-Voinet, C., Abenhaim, L. and Rouillon, F., 2004. The psychological impact of terrorism: an epidemiologic study of posttraumatic stress disorder and associated factors in victims of the 1995-1996 bombings in France. *American Journal of Psychiatry*, *161*(8), pp.1384-1389.

Victoroff, J. 2005. The Mind of the Terrorist A Review and Critique of Psychological Approaches. *Journal of Conflict Resolution*, 49(1), pp. 3-42.

Waugh Jr, W.L. and Sylves, R.T., 2002. Organizing the war on terrorism. *Public Administration Review*, 62(s1), pp.145-153.

Weber, M., 1947. *The theory of economic and social organization*. Trans. AM Henderson and Talcott Parsons. Oxford University Press.

Weimann, G., 2004. *How modern terrorism uses the Internet* (Vol. 31). DIANE Publishing.

Williamson, S., 2011. Flexible Response: The Development of American Counterterrorism Policy, 1968 -1976. *Primary Source*, 1(1), pp. 45-52.

Wills, D.C., 2004. *The first war on terrorism: counter-terrorism policy during the Reagan administration*. Rowman & Littlefield Publishers.

Whitten-Woodring, J. and James, P., 2012. Fourth estate or mouthpiece? A formal model of media, protest, and government repression. *Political Communication*, *29*(2), pp.113-136.

Wolf, Paul. 2003. "The Rhetoric of Terrorism." University of Leeds Papers. Accessed June 12, 2011. http://ics01.ds.leeds.ac.uk/papers/pmt/exhibits/1843/rhetoricTerr.pdf

Woolley, J.T. and Peters, G., 2011. The American Presidency Project [online]. Santa Barbara, CA. *Available from: http://www. presidency.ucsb.edu.*

Wright, S.M., 2007. *The United States and Persian Gulf security: The foundations of the war on terror* (Vol. 12). Garnet & Ithaca Press.

Wyatt, R.O., 1998. After 50 years, political communication scholars still argue with Lazarsfeld. *Journal of Communication*, *48*(2), pp.146-156.

Yagan, D., 2015. Capital tax reform and the real economy: The effects of the 2003 dividend tax cut. *The American Economic Review*, 105(12), pp.3531-3563.

Young, L., 2013. Unilateral presidential policy making and the impact of crises. *Presidential Studies Quarterly*, *43*(2), pp.328-352.

Young, J.K. and Dugan, L., 2011. Veto players and terror. *Journal of Peace Research*, 48(1), pp.19-33.

Young, G. and Perkins, W.B., 2005. Presidential rhetoric, the public agenda, and the end of presidential television's "golden age". *Journal of Politics*, *67*(4), pp.1190-1205.

Zarefsky, D., 2004. Presidential rhetoric and the power of definition. *Presidential Studies Quarterly*, *34*(3), pp.607-619.

Zhang, X.F., 2006. Information uncertainty and analyst forecast behavior. *Contemporary Accounting Research*, *23*(2), pp.565-590.