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The undersigned, appointed by the dean of the Graduate School,

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THE EFFECTS OF POLITICAL MESSAGE FRAMES ON AGGRESSION

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And hereby certify that, in their opinion, it is worthy of acceptance.

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ABSTRACT

The main purpose of this project is to explore if and how two different types of political message frames, negative policy critiques and threat copula frames, which are common features within political rhetoric, cause aggression when individuals are exposed to them. If political orientation is conceptualized as a cultural worldview, then Terror Management Theory predicts that when exposed to arguments which imply that the political orientation of an individual is not absolutely correct aggression will result. Negative policy critiques, which are arguments related to specific problems in policies, and threat copula frames, which are arguments that position an opposing political actor as a threat to America, are both threats to the absolute validity of the political orientation of an individual when those arguments target a supported actor. A convenience sample, utilizing random assignment to condition, was exposed to either a negative policy critique or threat copula frame that targeted the presidential candidate that the participant indicated they would vote for, or a positive advertisement, serving as a control condition, which acclaimed the participant’s supported presidential candidate. The results indicate that aggression was higher in those who supported Obama when those participants were exposed to a threat copula frame targeting Obama compared to a positive advertisement supporting Obama. No other results were significant. The reasons why this experiment may have failed and the implications of the significant result on the U.S. democratic system are discussed.
CHAPTER 1: INTRODUCTION

On Saturday January 8, 2011 Jared Lee Loughner went to a political rally at a Safeway in Tucson, Arizona and opened fire on the crowd with a semi-automatic pistol (“Gabrielle Giffords Shot,” 2011). Mr. Loughner killed six individuals, one of whom was a federal judge, and critically wounded 13 others (“Gabrielle Giffords Shot,” 2011). One of the wounded victims was the U.S. Representative from that district, Gabrielle Giffords. With a bullet through her brain, Representative Giffords was rushed to a local hospital while a nation watched breathless and wondered why this horror had occurred.

In a rush to find some underlying reason for the attack, many news organizations claimed that Representative Giffords was a victim of the contentious political climate (“Gabrielle Giffords Shot,” 2011; Lacey & Herszenhorn, 2011; Thornburgh, 2011). While recent documents show that the most likely cause of Lee’s rampage was his deteriorating mental condition (Orr, 2013), the contentious political climate is a reality that is currently facing America. Iyengar, Sood, and Lelkes (2012) have found that dislike for opposing political groups is increasing. Also, the most recent Congress (the 112th seated from 2010 through 2012) has been the least productive at producing legislation since such records have been kept (A. Brennan & Abdullah, 2012). While there are many potential causes for inactivity in Congress, a lack of compromise between the opposing political groups within Congress could be one potential consequence of a contentious political climate.

Politicians and pundits in the current political landscape have engaged in political rhetoric that invites the audience to regard political opponents as enemies, rather than
fellow citizens. For example, former Alaska Governor Sarah Palin tweeted, “Commonsense Conservatives & lovers of America: ‘don’t retreat, instead - reload!’” (2010); and Glenn Beck, a conservative radio and talk show host, compared the Obama administration to vampires leeching off of the American people and urged watchers to “drive a stake through the heart of the bloodsuckers” (“Violence is coming,” 2010). Further, Glenn Beck’s diatribes have been compared to Orwell’s “two minutes hate” scene in the novel 1984, and one individual who was the focus of a few Beck’s attacks reports receiving death threats following his “two minutes hate” sessions (Murphy, 2013).

Also, Sharon Angle, then a U.S. Senate candidate seeking to oust then Senate Majority Leader Harry Reid, stated:

If this Congress keeps going the way it is, people are really looking toward those Second Amendment remedies and saying, ‘My goodness, what can we do to turn this country around?’ I’ll tell you the first thing we need to do is take Harry Reid out” (as quoted in Somaiya, 2010, para. 5).

It is not just conservatives and Republicans who spew such hateful rhetoric; liberals have contributed as well. For example, Barack Obama once stated, “if they bring a knife to the fight, we bring a gun” in reference to Republicans at a campaign fundraiser in Philadelphia, PA (as quoted in WSJ Staff, 2008, para. 2). These types of negative messages invite the public to regard opposing political groups and actors as an object that is subject to potential violent action, rather than fellow American citizens, opening up the potential for violent action to occur.

Given the dire potential consequences, the effects of political rhetoric on aggression, defined as the intent to commit harm to another person (Anderson &
Bushman, 2002a), should be explored. Little previous research has examined this issue currently and such an exploration could help identify the causes of political violence, potentially helping to prevent violent political attacks in the future. Further, examining the relationship between political rhetoric and aggression can help clarify the relationship between communication and aggression in a democratic system. This project advances these goals by experimentally testing the effects of political rhetoric on aggression.

To accomplish this goal, this project will examine past research focusing on democracy and the roles that aggression and communication play within it. Next, literature regarding how communication may inspire aggression will be reviewed, focusing on two political message frames: the negative policy frame and the threat copula tactic. Finally, the results of an experiment testing the effects of the two political message frames on aggression will be discussed. This project concludes by placing this study within the theoretic conversation and discussing the practical implications of these findings on democracy.
CHAPTER 2: LITERATURE REVIEW

Rhetoric, Frames, and Violence in a Democratic State

Democracy can be understood as a communicative process designed to allow for competing interests to coexist in an agonistic rather than antagonistic fashion, implying that violence is avoided through communication in a democratic system (Mouffe, 2005). Based on this conceptualization, the goal of democracy is to prevent violent conflict among competing groups, while those groups seek to fulfill their own, potentially competing, interests. It would stand to reason then, that political violence would enter the system when communication cannot rectify these competing interests. To help understand political violence in a democratic system it is necessary to first unpack the terms violence and communication.

Past research within the communication field has defined violence as an act of aggression that has extreme harm as its goal (Anderson & Bushman, 2002a). Based on this definition, violence and aggression are not the same thing, and it is important to differentiate between the two. Aggression is conceptualized as, “any behavior directed toward another individual that is carried out with the proximate (immediate) intent to cause harm” (Anderson & Bushman, 2002a, p. 28). Violence then, is the extreme case of an aggressive act that seeks to kill or cause extreme harm to an individual (Anderson & Bushman, 2002a). There are potential actions, even political actions, which may be inspired by aggression but are not violent (Anderson & Bushman, 2002a). As Brennan (2011) points out, a person can vote a certain way because they wish to harm someone, such as when a person votes to ban gay marriage when that person finds it morally
offensive. Within Mouffe’s (2005) conceptualization of democracy, only violence is mentioned as being problematic, indicating that aggression may have a place within a democratic system. Democracy as a system is threatened when aggression becomes violent and an individual seeks to kill, or cause bodily harm to, another. This implies that within a democracy it is ethically appropriate to harm other opposing groups if it best serves a group’s interests, but it is not appropriate to kill anyone. Therefore, some aggression may occur within a democratic system, but violence should be mitigated by communication.

Rhetoric is communication that occurs within the public sphere focusing on public affairs in particular (Medhurst, 2001). The study of rhetoric, the field of rhetorical criticism, largely focuses on the specific viewpoint of the rhetor, the communication strategies utilized, the surrounding situational context, and the audience exposed to the specific public address. Unlike rhetorical criticism, which allows for an exploration into the choices made by the rhetor and the potential consequences, this project focuses on understanding a specific consequence of these choices and therefore a specific toolset is required, that of media effects.

Framing is a media effects theory that describes how mediated descriptions of an issue or event affects people (Shah, McLeod, Gotlieb, & Lee, 2009) and moreover, describes how the different choices made by a rhetor can effect an audience. A frame is a description that is used to highlight some aspects of an issue or event and downplay other aspects (Entman, 2004). As Entman points out, frames “select some aspects of a perceived reality to make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation and/or
treatment recommendation” (1993, p. 52). Frames provide a way to describe a situation and may affect how people think about those situations (Butler, 2009). Different frames of the same political event can elicit different understanding and reactions, and one of those reactions, which is explored experimentally in the current study, could be aggression.

One type of rhetorical frame that could cause a violent political action would be a negative frame, such as an attack or critique. Fridkin and Kenney (2011) acknowledged that there is variability in the types of negative messages and argue that the variability should be explored. The current project examines this variability by exploring two distinct negative message frames, negative policy frames and threat copula frames, and explores their relationship with aggression in individuals.

Negative policy frames emphasize certain aspects of a policy and critique those policy elements. These critiques are substantive in nature and emphasize negative aspects of the particular policy in question. A threat copula frame is an attack on a political actor that warps him or her into an enemy. The term “copula” is borrowed from Raum and Measell (1974, p. 31) and describes a genre of rhetoric that “represent distortions of reality and these distortions form the basis of judgments and arguments.” The threat copula frame is specifically designed to foment polarization among the population (Raum & Measell, 1974). The threat copula process is an attempt to create an artificial dichotomy that characterizes the opposition as a “monolithic force, the motives of which are suspect” (Raum & Measell, 1974, p. 35). Therefore, to fall within this category a frame must emphasize the otherness of the opposition and indicate the opposition represents an existential threat to the in-group.
One difference between a negative policy frame and threat copula frame is the negative policy frame attacks specific issues and the threat copula frame attacks the image of the subject, who in this case is an opposing political actor. Some scholars have indicated that issue and image do not form a dichotomous relationship and that the two attributes coexist and reinforce each other in political messages (e.g. Carlin, 1992). While the two attributes do work together, issue and image attacks can still be separated in empirical analysis to determine the effects of each. For example, differences between the effects of issue and image claims in political ads have been observed (Thorson & Christ, 1991). So, while many messages potentially employ both of these frames to some degree, this analysis will separate them to determine the individual effects of each.

It is important to consider the possibility that both of these message frames cause aggression. The differences between the two frames could be the amount of aggression caused or how different groups are affected. These differences are predicted by Terror Management Theory (TMT), which will be explored below. However, first the conceptualization of political orientation as a cultural worldview--a construct vital to TMT, must be explored, as it is key to understanding how these message frames can cause aggression.

How Political Message Frames Cause Aggression

Cultural Worldviews and Political Orientation

Political orientation is a rather curious concept. It has been found that individuals with radically different stances on political issues may identify as having the same political orientation (Converse, 2006). Political orientation then is not a set of ideologies
and specific policy positions but is something else. Research has shown that political orientation is based on identification with a specific group (Conover & Feldman, 1981; Conover, 1984, 1988; Converse, 2006) and potentially based on hostility towards another political group based on past experiences (Zschirnt, 2011). Therefore political orientation is often more strongly related to social identity than substantive political issues. Thus, political orientation is likely similar to nationalism or patriotism, which are traditionally based on identification with an nation state, nationality, or abstract cultural belief rather than a set of specific beliefs (Viroli, 1997).

Political orientation is a relatively stable construct based on group identification that has been characterized as a psychological attachment (Simon, 2002). Implicit cues of out-group members that are perceived as unfairly benefiting from government policies have been shown to prime negative evaluations of those in the out-group (Valentino, Traugott, & Hutchings, 2002). Thus political orientation is a powerful variable that often constitutes a strong component in individual’s lives and personalities.

Given the importance of political orientation to the identity of individuals, political orientation can be classified as a cultural worldview, or a part of a larger cultural worldview. A cultural worldview is a belief system that describes the universe including what is and is not possible within it (Koltko-Rivera, 2004). An individual’s cultural worldview provides the epistemic and ontological base upon which all their beliefs are built (Koltko-Rivera, 2004). Moreover, these worldviews are shared with groups of people and create a shared conception of what the universe is and what is possible within it (Becker, 1971, 1973, 1975).
Terror Management Theory predicts that these worldviews provide a sense of order and allow people within the group to transcend death by contributing to the group (Solomon, Greenberg, & Pyszczynski, 2000). Large and sprawling organizations exist to provide support for group members within their cultural worldview. These types of organizations include churches, synagogues, and mosques, and in the case of the political orientation worldview, political parties. By contributing to such organizations the group member can gain self-esteem, resulting in a belief that, “one is a valuable member of a meaningful universe and thereby elevated above mere material existence” (Solomon et al., 2000, p. 201). Self-esteem creates a buffer between an individual’s mind and his or her invading existential fears, thus allowing the individual to go on with his or her daily life (Solomon, Greenberg, & Pyszczynski, 1991). The specific elevation indicated by the self-esteem belief may be literal, in the case that one goes to heaven after death, or symbolic, in the case that work is recognized by others and some level of fame or celebrity is achieved (Miller & Landau, 2005).

The strength of political parties and their work pursuing lasting change is a major component of conceptualizing political orientation as a cultural worldview. Political parties provide structure and stability to the democratic system by creating heuristics that the population can use to gauge competing candidates (Petrocik, Benoit, & Hansen, 2003). They are a hegemonic entity, similar to a church, which embody an area of cultural significance and importance.

Becker (1971) states that all cultural worldviews accomplish three tasks: provide a description about how the world was created, prescribe what must be done to live a
good and valuable life, and result in immortality or everlasting life to those who fulfill the requirements of a well lived life. Political parties fulfill all of these requirements.

First, Becker (1971) states that a cultural worldview must provide a description for how the world was created. This description provides the base for the belief system, and all other beliefs stem from it. Political parties have strong ties to religion in such a manner that Democrats and Republicans are likely to be among other members of the same religious tradition and individuals are more likely to vote for a person who they share a religion with (Campbell, 2002; McKinney, 1944). Therefore, shared religious groups bind politics and religion together. This implies that individuals will likely share a creation story with those within their political party, whether it is in the belief in God, the belief in science, or the belief in something else entirely. Further the parties themselves have stories regarding the creation of the party and their own idolized figures that embody the party’s identity (e.g., Ronald Reagan for Republicans and Franklin D. Roosevelt for Democrats) along with their own distinct philosophical traditions. While not a perfect corollary to a world creation story, sharing similar values that stem from similar religious traditions along with following the same philosophical tradition related to effective governance indicate that political parties provide a base for other beliefs to grow from.

Second, Becker (1971) states that cultural worldviews must provide a way for an individual to contribute so that they may live a valuable life. Each party promises that by voting for that party and/or by donating money to a campaign the individual is contributing to the party. By contributing the individual is imbuing their life with some sort of value, since they are helping the party accomplish its stated goals. Therefore, a
political party offers individuals an opportunity to instill their lives with value through their work towards a larger goal.

Finally, Becker (1971) states that contributing to a cultural worldview must result in either symbolic or literal eternal life. Political parties often use language that indicates they are attempting to build a better America or to preserve America for their children, thereby implying that by voting or contributing to the party the individual can help the party save America (e.g., Wakefield, 2012). Through an individual’s contribution they are helping to maintain America for the future, thereby achieving a level of symbolic immortality. Thus, political orientation can act as cultural worldview for some. Terror Management Theory predicts that an aggressive reaction to communication, such as negative policy frames and threat copula frames, may occur when cultural worldviews, like political orientation, are threatened.

Several different research projects have examined individuals of differing political orientations and concluded that there are distinct differences between liberals and conservatives. These projects indicate that there may be differences in the moral codes that guide the different groups (Graham, Haidt, & Nosek, 2009; Haidt & Graham, 2007; Lakoff, 2002), differing personality profiles and interaction techniques (Carney, Jost, Gosling, & Potter, 2008), and even levels of happiness (Napier & Jost, 2008). These differences indicate that conservativism and liberalism may be different cultural worldviews. This difference will be explored in this project.
**Terror Management Theory**

Terror Management Theory describes the relationships between cultural worldviews (such as political orientation), self-esteem, and the behaviors of individuals (Solomon et al., 1991). TMT states that when the idea of an individual’s mortality is primed, individuals engage in behaviors that defend their worldview. Typically this mortality salience prime is operationalized by participants writing about or being exposed to situations involving their imminent demise (Solomon et al., 2000). This stimulus forces normally repressed anxiety related to the fear of death into and individual’s mind and can cause reactions related to the self-preservation of the individual and the cultural worldview (Solomon et al., 1991). Rosenblatt and colleagues (1989) found that when primed by mortality salience individuals were more likely to punish those who violated cultural norms more severely. Past research has explored a wide range of effects emerging from a morality salience prime (Greenberg, Solomon, & Pyszczynski, 1997) including, but not limited to, increased levels of prejudice and ethnocentrism (Greenberg et al., 1990; Harmon-Jones, Greenberg, Solomon, Simon, & others, 1996) and increased aggression against those that threaten an individual’s worldview (McGregor et al., 1998).

While a significant proportion of the empirical research on terror management theory involves the use of a mortality salience prime, it is not the only trigger that has been explored in reference to this theory. Specifically a threat to self esteem produces anxiety and instigates, “defensive reactions to either defuse the impact of the specific threat or restore one’s more general sense of self worth” (Solomon et al., 1991, p. 108). Also, Solomon, Greenberg, and Pyszczynski (1991) made the following remarks about others who symbolize the non-absolutism of an individual’s worldview:
The mere existence of others who do not share our central attitudes, beliefs, and values is threatening because, if others do not agree with us, it implies that we might be wrong. Consequently, different others motivate action to eradicate the threat and thereby defend the validity of the worldview (p. 125).

Therefore, exposure to the existence of individuals that are discrepant from the cultural worldview is a threat to self-esteem and the cultural worldview (Solomon et al., 1991) and individuals are, “strongly motivated to maintain self-esteem and faith in their cultural worldviews and to defend both of these structures against threats” (Greenberg et al., 1997, p. 66).

The role of self-esteem in relationship to anxiety has been supported by empirical research. Bennett and Holmes (1975) as well as Leary, Barnes, and Griebel (1986) showed that being exposed to a threat to self-esteem (in these cases failing a test) led to increased levels of anxiety. Further, Greenberg his colleagues (1992) have shown that high self-esteem individuals are less susceptible to attacks on self-esteem. Therefore a threat to self-esteem can engender a response predicted to terror management theory and levels of self-esteem moderate the response.

Frames as a Threat to Worldviews

As discussed earlier, negative policy frames highlight the substantive negative aspects of policy issues and threat copula frames position a target as an existential threat to a target audience. Based on the assumptions of and past findings related to TMT it is likely that both of these types of frames will have an effect on individuals for whom political orientation is a part of their cultural worldview. There may be differences in
effects based on the type of frames that one is exposed to, the extent to which aggression is caused by each frame, and/or the individuals that are affected. This situation is elaborated further below.

It is likely that highly partisan or political polarized individuals in one party hold negative views of individuals in the other party (Iyengar et al., 2012; Stroud, 2010). Highly partisan individuals likely consider people in the other political party to be ignorant, immoral, or any host of other negative terms that make those individuals incapable of discussing substantive policy issues. Schimel and colleagues (1999) found that stereotypes of other groups were a part of the cultural worldview and that upon being primed by mortality salience participants expressed negative evaluations of those of minority out-groups who violated stereotypes associated with that group. Therefore, a stereotype regarding members of the political out-group and their perceived inability to engage in substantive policy discussion may be a part of a political in-group cultural worldview.

Negative policy critiques are substantive comments that attack a specific policy and frame it in a negative manner. Therefore if a person from the opposing party expressed a negative policy frame that targets an individual’s held beliefs then that would threaten the worldview of the polarized individual and inspire a response. Specifically the critique would pose a two-headed threat to the cultural worldview and the individual’s self-esteem: it would force the individual to consider that their belief may be logically incorrect and it would challenge the stereotype that the individual holds regarding members of the opposing political party. So, when individuals are exposed to
communication that uses a negative policy frame that targets a supported politician or policy, Terror Management Theory predicts that a reaction will occur.

On the other hand, threat copula frames are speech acts that create a distortion of reality and emphasize that the target is an existential threat to the in-group. If a threat copula frame is targeted at a politician or policy that an individual supports then that challenges the absolute validity of the cultural worldview of the individual. This challenge would indicate that a held belief is false, and those that hold those beliefs are dangerous. Therefore, when individuals are exposed to a threat copula frames that target a supported politician or policy, Terror Management Theory predicts a response.

This project seeks to empirically address the effects negative policy frames and threat copula frames on aggression. As such, mediated stimuli that depict both negative policy frames and threat copula frames will be used as conditions in an experimental setting. A third control condition, in which participants are exposed to a positive political advertisement, will be included as well. Terror Management Theory predicts several ways in which individuals may respond to the two experimental frames.

Responses to Threats

Terror management theory predicts how individuals will behave when their cultural worldview and self-esteem are threatened. These behaviors include support for the annihilation or destruction of the opposing worldview, the derogation of the opposing worldview, the attempt to convince others from the opposing worldview to adopt the individual’s worldview, and the attempt to accommodate the opposing worldviews
beliefs with the individual’s worldview (Greenberg et al., 1997). The effect of annihilation is the only effect associated with aggression so it shall be explored further.

**Annihilation of the Opposing Worldview**

Annihilation of an opposing worldview is an inherently violent action. Also, in the case of a modern mediated democracy individuals will access most of the occurrences of negative policy frames and threat copula frames through the media. As such it is logical to turn to the history of research on violent media effects for information regarding how the media may inspire violence. A host of experiments, longitudinal studies, and surveys have linked exposure to media representations of violence to increased aggression and in some cases acts of violence (Anderson & Bushman, 2002b; Bushman & Anderson, 2001; Bushman, Huesman, & Whitaker, 2009). This effect has been found in relation to exposure to depictions of violence on television (Huesmann, Moise-Titus, Podolski, & Eron, 2003), engaging in violent actions in video games (Krcmar, Farrar, & McGloin, 2011; Krcmar & Lachlan, 2009), exposure to violent song lyrics (Anderson, Carnagey, & Eubanks, 2003), and even when experimental participants are only exposed to pictures or the names of firearms (Anderson, Benjamin, & Bartholow, 1998).

Anderson and Bushman (2002a) worked to unify the diverse work involving violent media effects into a single unified model called the General Aggression Model (GAM). The GAM describes how exposure to violent media ultimately leads to increased levels of aggression and the likelihood to commit acts of violence. Therefore, this model can describe the response of annihilation. This model hypothesizes that situational
variables (e.g. an interpersonal conflict, a media stimulus) and individual differences (e.g. trait aggression, sex) can combine to change the individual’s internal state. The internal state of the individual is influenced by components that interact with one another through cognitive connections: individual affect and physiological arousal. The internal state can then influence the decision-making process when presented with a situation when an aggressive reaction is possible. There are two types of decisions that can be made in relation to an aggressive reaction: impulsive or thoughtful. A simplified pictorial depiction of the entire GAM can be seen in Figure 1.

**Figure 1: The General Aggression Model Episodic Process**

Note: From Anderson & Bushman 2002a

**Decision Process.** The last step of the GAM, when an individual makes a decision, is of importance in this study. Anderson and Bushman (2002a) differentiate between an impulsive and thoughtful decision based on the cognitive resources available for the decision and if the outcome of the decision is particularly important. If there is not
much time or the situation is not important then an impulsive decision is likely to occur. On the other hand, if the situation is important and time is available then a more thoughtful decision is likely. See Figure 2 for a pictorial representation of the decision process. Since the frames explored in this project pose threats to a cultural worldview—a key part of the individual’s identity—it is likely that a thoughtful action is necessary.

Figure 2: The Decision Process of the General Aggression Model

This implies some difficulty with the operationalization of aggression. Self-report measures of aggression often involve participants indicating how they would respond to a hypothetical situation involving an interpersonal conflict in which an aggressive reaction could be warranted (e.g. Farrar & Krcmar, 2006). Those with higher levels of aggression indicate that they would be more likely to react with violence than those with low levels of aggression. However, these measures only focus on how the participants would respond in one type of situation, an interpersonal conflict. It is possible that an individual may not be primed to engage in interpersonal violence but will still be primed to engage in political violence. This is because interpersonal violence is associated with a conflict
with less potential ramifications than political violence. For example, if a person assaults or kills another individual during an interpersonal conflict, the crime could be considered a moment or rage, or an impulse. However, if a person assaults or kills an individual for solely political reasons, it indicates that there is some level of premeditation. Therefore, it seems somewhat likely that interpersonal violence would be associated with the impulsive action route in the GAM while political violence, especially that caused by this particular stimulus, would be associated with the thoughtful action route. To fully understand the potential effects of hostile rhetoric it is necessary to measure aggression related to thoughtful route as well as the impulsive route.

**Individual Differences.** There are several individual difference variables of interest when considering the effects predicted by both TMT and the GAM. This study will isolate and consider only those variables that are related to Terror Management Theory (self-esteem and polarization). Based on this information as well as the previous discussion of negative policy frames and threat copula frames the following hypotheses are proposed:

*Hypothesis 1:* Participants exposed to a negative policy frame targeting a supported politician will report more aggression associated with both decision routes of the GAM compared to the control condition.

*Hypothesis 2:* Participants exposed to a threat copula frame targeting a supported politician will report more aggression associated with both decision routes of the GAM compared to the control condition.

Following the analysis comparing each experimental condition with the control condition, the aggressive reaction caused by the frames will be compared to each other.
There is no previous research that explores the difference between these frames so a research question is posed:

Research Question 1: Will a negative policy frame or a threat copula frame targeting a supported politician cause more aggression with both decision routes of the GAM?

The relationship between exposure to the experimental conditions and interactions with variables of theoretic interest (polarization, self-esteem, and partisanship) are also explored in the current project. The following hypotheses and research questions probe these relationships:

Hypothesis 3a: For participants exposed to a negative policy frame targeting a supported politician, exposure will interact with self-esteem in an inverse manner to cause more aggression associated with both decision routes of the GAM than the control condition.

Hypothesis 3b: For participants exposed to a negative policy frame targeting a supported politician, exposure will interact with polarization in a direct manner to cause more aggression associated with both decision routes of the GAM than the control condition.

Research Question 2: What is the role of partisanship in moderating the effect of exposure to a negative policy frame targeting a supported politician and aggression in both decision routes of the GAM compared to the control condition?

Hypothesis 4a: For participants exposed to a threat copula frame targeting supported politician, exposure will interact with self-esteem in an inverse manner
to cause more aggression associated with both decision routes of the GAM than the control condition.

*Hypothesis 4b*: For participants exposed to a threat copula frame targeting a supported politician, exposure will interact with polarization in a direct manner to cause more aggression associated with both decision routes of the GAM than the control condition.

*Research Question 3*: What is the role of partisanship in moderating the effect of exposure to a threat copula frame targeting a supported politician and aggression in both decision routes of the GAM compared to the control condition?

*Research Question 4a*: Will a negative policy frame or a threat copula frame targeting a supported politician cause more aggression with both decision routes of the GAM when exposure to the frames interacts in an inverse manner with self-esteem?

*Research Question 4b*: Will a negative policy frame or a threat copula frame targeting a supported politician cause more aggression with both decision routes of the GAM when exposure to the frame interacts in a direct manner with polarization?

*Research Question 4c*: How does exposure to negative policy frames or threat copula frames targeting a supported politician relate to aggression with both decision routes of the GAM when exposure is moderated by partisanship?
CHAPTER 3: METHOD

The overall goal of this project is to systematically determine the effects of negative policy frames and threat copula frames targeting supported politicians on individual levels of aggression. This experiment was conducted during the last two weeks of the 2012 U.S. presidential election campaign and political advertisements were used as stimuli materials. In this experiment participants were randomly assigned to view constructed campaign commercials in either an experimental or control condition. There were two experimental conditions, one that utilized a negative policy frame and the other utilizing a threat copula frame targeting either Barack Obama or Mitt Romney. The control condition featured a positive constructed advertisement that advocated for Barack Obama or Mitt Romney and utilized the same style as the negative advertisements. The participants, procedures, measures, and analysis techniques are described below.

Participants

A convenience sample of 306 individuals from a large mid-western university participated in this experiment. All participants were offered extra credit in a communication course in exchange for their participation. Much has been made of the lack of generalizability of student samples to the general population, however, past meta-analytic research on negative political ads has found that the effect sizes of those ads on student samples compared to adult samples are not significantly different (Lau, Sigelman, Heldman, & Babbitt, 1999). Therefore a student convenience sample is adequate to explore the relationships between these political message frames and aggression.
The majority of participants were female (67.6%, \( n = 207 \); Male: 30.1%, \( n = 92 \)), with seven individuals not reporting sex. The ages of the participants ranged from 17 to 31 (\( M = 19.85, SD = 1.77 \)), with eight individuals not reporting age. Also, the majority of the sample was Caucasian (83.3%, \( n = 255 \)), but African Americans (4.2%, \( n = 13 \)), Hispanics/Latinos (1.6%, \( n = 5 \)), Multi-racial individuals (4.2%, \( n = 13 \)), and people of other races/ethnicities (4.2%, \( n = 13 \)) were also represented in the sample (seven individuals did not report race/ethnicity).

**Procedure**

The participants accessed the experiment through an Internet browser from any computer. Participants were randomly assigned to one of two experimental conditions or the control condition. There were 92 participants assigned to the control condition, 109 participants assigned to view the negative policy frame, and 105 participants assigned to view the threat copula frame. Following assignment the participant’s support for either President Barack Obama or Governor Mitt Romney was measured. Participants were then exposed to a media message associated with their assigned condition that targeted the political actor that they support.

After exposure to their condition, participants completed questionnaires that allow for the analysis of all hypotheses. Finally demographic information regarding the participants was collected. Following completion of the questionnaires participants were debriefed regarding the constructed advertisements.
Media Stimuli

This study involved three conditions with two ads for each condition, resulting in six different advertisements: a negative policy frame and threat copula frame that targeted either Barack Obama or Mitt Romney were utilized as experimental conditions and a positive campaign commercial that advocated for Barack Obama or Mitt Romney was used as a control condition. The experimental campaign advertisements were constructed from stock footage showing American people; utilized patriotic, yet ominous, background music; and were each one-minute in length. The stock footage and music was the same across each condition. At the beginning or end of each advertisement (selected to match the style of online advertisements for each campaign) a sponsorship message appeared that credited the authorship for each ad to the opposing political candidate. Thus the only difference in each condition was the message that it portrayed. The control condition was also a constructed advertisement. It utilized the same stock footage, but it was brighter in color and used positive patriotic background music. The positive advertisement for each candidate was also one minute in length and acclaimed each candidate without targeting the other candidate for criticism. At the beginning or end of the positive advertisement a sponsorship message appeared attributing authorship to the supported candidate’s campaign.

In the constructed advertisements the same male voice actor spoke the message of each advertisement. Key parts of the message were highlighted with text on the screen. Moreover, the message that targets Barack Obama and Mitt Romney in each frame condition were only different based on the use of candidate names and titles. Please see
Appendix 1 for a transcript of each message and YouTube links to the constructed advertisements.

The negative policy frame advertisements focused only on the candidate’s economic and Medicare policies. Criticism regarding the opposing candidates economic and Medicare policies have emerged during the campaigns from both parties (Associated Press, 2012a, 2012b; Espo, 2012; Peoples, 2012). By using generalities and discussing solely the fact that the economic policy would not work, the attack was able to use the same script to criticize both candidates. The threat copula frame advertisements focused on the idea that each candidate would cause tyranny and reduce American freedoms if they were elected. This argument has been used in reference to Barack Obama’s taxation and health care plans (Savage, 2012) and in reference to the Romney campaign’s issues with women’s reproductive rights (Gray, 2012). Therefore, by using generalities, the same script was used criticize both candidates.

**Measures**

**Candidate Support**

Prior to exposure to the media stimuli the participants were asked which presidential candidate, Barack Obama or Mitt Romney, they would vote for if the election occurred on that day. This allowed for an accurate measure of which candidate was supported by the participant. This measure also was used as a proxy for partisanship when exploring the moderation effect of partisanship on exposure to a condition. This is because, while not a perfect proxy, the best predictor of vote choice is the partisanship of the individual (Whiteley, 1988).
Self-Esteem

Self-esteem was measured using Rosenberg’s ten-item self-report self-esteem scale (1965). This measure asks how much the participants agree (1 = Completely Disagree to 7 = Completely Agree) with statements regarding how they feel about themselves and how much they value themselves. This scale has been used in Terror Management Theory research (e.g. Harmon-Jones et al., 1997). This scale was adequately reliable for use in this analysis (α = 0.88).

Political Polarization

Political polarization was measured by asking participants to indicate how warm or cold they felt towards Republicans, Democrats, Liberals, and Conservatives using a 100-point feeling thermometer (e.g. Iyengar et al., 2012; Skitka, Bauman, & Sargis, 2005). The score within each group (Democrats/Liberals and Republicans/Conservatives) were summed together and then the score associated with the Democrat/Liberal group was subtracted from the Republican/Conservative group. This created a scale in which participants scoring around zero were moderates, participants scoring near +200 were polarized conservatives, and participants scoring near -200 were polarized liberals. The absolute value of this scale was computed, resulting in a score in which participants around 0 are considered moderates and participants around +200 are considered highly polarized.

Impulsive Route Aggression

The level of participant aggression relating to an impulsive decision route was measured by the state aggression scale developed by Farrar and Krcmar (2006). This 11-
item measure asks how much the participants agree (1 = Completely Disagree to 7 = Completely Agree) with statements regarding how they would engage in aggressive activity within a hypothetical interpersonal interaction in which a conflict has occurred. This measure has been shown to have construct validity by Farrar and Krcmar (2006) and has been used in subsequent scholarship, achieving adequate reliability in each (e.g. Bluemke, Friedrich, & Zumbach, 2010; Krcmar et al., 2011; Krcmar & Farrar, 2009; Krcmar & Lachlan, 2009; Vieira & Krcmar, 2011). This scale was adequately reliable for use in this analysis (α = 0.87).

Thoughtful Route Aggression

A scale designed to assess the acceptance of political violence measured the level of participant aggression relating to a thoughtful decision route. This scale was used in place of a behavioral measure for political violence to address ethical concerns and the potential of social desirability bias skewing the results. The level of the participant’s support for political violence has been adapted from a previously existing measure (Kalmoe, 2011). Within the original scale participants were asked to what extent they agree with (1 = Completely Disagree to 7 = Completely Agree) statements advocating political violence. The measure was extended to include statements about revolutionary rhetoric, such as, “The tree of liberty needs to be nourished with the blood of revolution,” and, “If elections don’t fix America’s problems, we may need to pursue 2nd Amendment remedies.” This scale has been used in previous scholarship (Hawthorne & Warner, 2013), and see Appendix 2 for the full scale. This scale was adequately reliable for use in this analysis (α = 0.87).
Demographic information

Individuals were asked a variety of demographic questions to describe the sample including sex and age. Both of these variables were measured by a self-report and were used as control variables because of their relation with aggression explored in previous research (e.g. Anderson & Bushman, 2002b).

Analysis

Hierarchical regression analyses were used to test the hypotheses and research questions explored in this study. The impulsive and thoughtful aggression variables were used as dependent variables and the predictor variables varied with each individual test. Control variables of age and sex were entered into the first block of the regression equation while the variable of theoretic interest was entered into the second block. The variable of theoretic interest in each test varies, but was always based on exposure to one of the conditions in the experiment. This experimental condition variable was dummy coded to allow for comparisons between exposure to conditions. When testing for interaction effects both the exposure variable and the non-modified interacting variable were included in the second block and the interaction term was then entered into the third block. In the case of a significant interaction, it was unpacked and explored further. As a first step in this analysis a correlation matrix was produced (Table 1) and is utilized as a check for multicollinearity. As the individual significant predictors in each model are described below, any issues from the correlation matrix that indicate that multicollinearity may be an issue in the model are addressed.
Table 1: Correlation matrix of all variables used in analysis

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Note: * p < .05, ** p < .01, *** p < .001
CHAPTER 4: RESULTS

Direct Effects

The first hypothesis focused on a direct effect between exposure to a negative policy frame that critiques a supported politician and aggression on both decision routes of the GAM leading to higher aggression in the experimental condition compared to the control condition. Exposure to the negative policy frame was dummy coded as a referent to exposure to the control condition. Only those participants exposed to the control and negative policy frame conditions were selected in this analysis. The highest correlation between the predictor variables was observed between sex and age ($r = -.16$, $p < .01$), and is weak enough that it likely will not mask any potential effect.

The regression equation predicting impulsive route aggression, utilizing only control variables, was a significant fit to the data ($F (2, 192) = 11.68$, $p < .001$), and accounted for 10.8% of the variance on the dependent variable ($R^2 = .108$). Adding exposure to the negative policy frame to the model was a significant fit to the data ($F (3, 191) = 8.61$, $p < .001$), accounted for 11.9% of the variance on the dependent variable ($R^2 = .119$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .01$, $F (1, 191) = 2.32$, $p = .129$). As indicated in Table 2, sex was the only significant predictor of aggression, in that males were more aggressive.
Table 2: Coefficients in relationship between negative policy frame and impulsive route aggression

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<th>Theoretic Variables</th>
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<td>Age</td>
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<td>Policy Frame Exposure</td>
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</table>

Note: * \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)

The regression equation predicting thoughtful route aggression, utilizing only control variables, was not a significant fit to the data \( (F(2, 192) = 2.06, p = .130) \), and accounted for 2.0% of the variance on the dependent variable \( (R^2 = .02) \). Adding exposure to the negative policy frame to the model did not improve its fit \( (F(3, 192) = 1.37, p = .25) \), accounted for 2.1% of the variance on the dependent variable \( (R^2 = .021) \), and did not increase the variance accounted for by the model significantly \( (\Delta R^2 = .00, F(1, 191) = .01, p = .93) \). Neither the control variables nor exposure to the negative policy frame were significant predictors of thoughtful route aggression.

These regression models do not provide support for hypothesis one and indicate that there is not a direct effect between exposure to negative policy frames and increased levels of aggression compared to positive advertisements. The only significant predictor of impulsive route aggression was sex, in such a way that males were more aggressive. No variables were significant predictors of thoughtful route aggression.

The second hypothesis focused on a direct effect between exposure to a threat copula frame that attacks a supported politician and aggression on both decision routes of the GAM leading to higher aggression in the experimental condition compared to the
control condition. Exposure to the threat copula frame was dummy coded as a referent to exposure to the control condition. Only those participants exposed to the control and threat copula frame conditions were selected in this analysis. Again, the highest correlation between the predictor variables was observed between sex and age ($r = -0.16, p < .01$), and is weak enough that it likely will not mask any potential effect.

The regression equation predicting impulsive route aggression, utilizing only control variables, was a significant fit to the data ($F(2, 189) = 19.18, p < .001$), and accounted for 16.3% of the variance on the dependent variable ($R^2 = 0.163$). Adding exposure to the threat copula frame to the model produced an equation that was still a significant fit to the data ($F(3, 188) = 12.99, p < .001$), accounted for 17.2% of the variance on the dependent variable ($R^2 = 0.172$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .01, F(1, 188) = 1.87, p = .173$). Table 2 includes the coefficients and significance level associated with each predictor, in all models, and shows that sex was the only significant predictor of impulsive route aggression, in such a manner that males were more aggressive.

Table 3: Coefficients in relationship between threat copula frame and impulsive route aggression

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<th>Control Variables</th>
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Note: * $p < .05$, ** $p < .01$, *** $p < .001$
The regression equation predicting thoughtful route aggression, utilizing only control variables, was not a significant fit to the data \((F (2, 189) = 2.33, p = .10)\), and accounted for 2.4% of the variance on the dependent variable \((R^2 = .024)\). Adding the exposure to the threat copula frame to the model did not improve model fit \((F (3, 188) = 2.43, p < .07)\), accounted for 3.7% of the variance on the dependent variable \((R^2 = .037)\), and did not increase the variance accounted for by the model significantly \((\Delta R^2 = .01, F (1, 188) = 2.59, p = .11)\). None of the variables included in this model were significant predictors of thoughtful route aggression.

These regression models do not provide support for hypothesis two and indicate that there is not a direct effect between exposure to threat copula frames and increased levels of aggression compared to control condition. The only significant predictor in either model was sex in relation to impulsive route aggression, in such a way that if a participant was male they were more likely to have high levels of aggression.

Research question one posited whether exposure to a negative policy frame or a threat copula frame targeting a supported politician would cause more aggression with both decision routes of the GAM. Exposure to the threat copula frame was dummy coded as the referent compared to exposure to the negative policy frame. Only participants exposed to either the threat copula frame or negative policy frame were selected for this analysis. The highest correlation between the predictor variables was observed between sex and age \((r = -.16, p < .01)\), and is weak enough that it likely will not mask any potential effect.

The regression equation predicting impulsive route aggression, utilizing only control variables, was a significant fit to the data \((F (2, 204) = 17.79, p < .001)\), and
accounted for 14.9% of the variance on the dependent variable ($R^2 = 0.149$). Adding exposure to the threat copula frame to the model was a significant fit to the data ($F (3, 203) = 11.81, p < .001$), accounted for 14.9% of the variance on the dependent variable ($R^2 = 0.149$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .00, F (1, 203) = .01, p = .91$). Table 4 includes the coefficients and significance level associated with each predictor in the final model and shows that sex and age were the only significant predictors of impulsive route aggression, in such a way that males and older individuals were more aggressive.

Table 4: Coefficients testing for differences on impulsive route aggression between experimental conditions

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Note: * $p < .05$, ** $p < .01$, *** $p < .001$

The regression equation predicting thoughtful route aggression, utilizing only control variables, was not a significant fit to the data ($F (2, 204) = .44, p = .645$), and accounted for .4% of the variance on the dependent variable ($R^2 = .004$). Adding the exposure variable to the model did not significantly improve the model fit ($F (3, 203) = 1.12, p = .34$), accounted for 1.6% of the variance on the dependent variable ($R^2 = 0.016$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .01, F (1, 203) = 2.48, p = .117$). In the final model no variables were significant predictors of thoughtful route aggression.

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These regression models do not indicate that there is not a greater effect on aggression associated with exposure to either frame. In the model predicting impulsive route aggression, the only significant predictors were sex and age, in such a way that males and older people were more aggressive. The model comparing the effect of the frames on thoughtful route aggression was not a significant fit to the data, making it impossible to interpret the meaning of any coefficients in the model.

**Moderation Effects of the Negative Policy Frame**

Hypothesis set three posited that when participants are exposed to negative policy frames that target a supported politician, exposure would interact with self-esteem in an inverse manner and with polarization in a direct manner to cause more aggression related to both decision routes of the GAM compared to the control condition. To test this hypothesis set, four different regression models were utilized. First, exposure to the negative policy frame was dummy coded as a referent compared to the control condition, and only those exposed to the control condition and the negative policy critique were selected for this analysis. To compute an interaction effect, the self-esteem and polarization variables were multiplied with the exposure dummy code variable. The strongest correlation between the predictors in this model occurred between the interaction term of self-esteem and exposure to the negative policy critique and the unmodified exposure to negative policy critique variable ($r = .98, p < .001$). Such a high correlation indicates that a potential effect may be masked by multicollinearity and care should be taken when interpreting results associated with the interaction term of self-esteem and the negative policy critique. Another strong correlation was observed between
exposure to the negative policy critique and the interaction of exposure to the negative policy critique and polarization ($r = .70, p < .001$) indicating that a similar issue may arise when utilizing that interaction term.

The first regression model computed to test hypothesis three focuses on impulsive route aggression as the dependent variable and explores the relationship between self-esteem, exposure to the negative policy critique frame, and aggression. The model utilizing only control variables, was a significant fit to the data ($F (2, 192) = 11.68, p < .001$), and accounted for 10.8% of the variance on the dependent variable ($R^2 = .108$). Adding exposure to the negative policy frame and self-esteem to the model produced a model with significant fit to the data ($F (4, 190) = 6.43, p < .001$), accounted for 11.9% of the variance on the dependent variable ($R^2 = .119$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .01, F (1, 189) = 1.16, p = .317$). Finally adding the interaction term of self-esteem and the negative policy frame to the model was also a significant fit to the data ($F (5, 189) = 5.47, p < .001$), accounted for 11.9% of the variance on the dependent variable ($R^2 = .119$), but did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00, F (1, 189) = .00, p = .968$). Table 5 includes the coefficients and significance level associated with each predictor in each model and shows that sex was the only significant predictor of impulsive route aggression, in such a manner that males were more aggressive. It is unlikely that an effect was masked by multicollinearity in this model since there is little observed relationship in the correlation matrix between impulsive route aggression and the interaction term ($r = .03, p > .05$), exposure to the negative policy frame and impulsive route aggression ($r = .03, p > .05$), exposure to the negative policy frame and impulsive route aggression ($r = .03, p > .05$).
.03, \( p > .05 \), or exposure to self-esteem and impulsive route aggression (\( r = -.00, p > .05 \)).

Table 5: Coefficients exploring relationship between exposure to policy critique, self-esteem, and impulsive route aggression

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<tr>
<th>Control Variables</th>
<th>Theoretic Variables</th>
<th>Interaction Term</th>
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Note: * \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)

The second regression model computed to test hypothesis three focuses on thoughtful route aggression as the dependent variable and explores the relationship between self-esteem, exposure to the policy frame, and aggression. The model utilizing only control variables, was not a significant fit to the data (\( F (2, 192) = 2.06, p = .130 \)), and accounted for 2.1% of the variance on the dependent variable (\( R^2 = .021 \)). Adding exposure to the negative policy frame and self-esteem to the model significantly improved model fit to the data (\( F (4, 190) = 2.43, p < .05 \)), accounted for 4.9% of the variance on the dependent variable (\( R^2 = .049 \)), but did not increase the variance accounted for by the model significantly (\( \Delta R^2 = .03, F (2, 190) = 2.77, p = .065 \)). Finally adding the interaction term of self-esteem and exposure to the negative policy frame to the model worsened model fit so that it was no longer significant (\( F (5, 189) = 1.95, p = .088 \)), accounted for 22.2% of the variance on the dependent variable (\( R^2 = .222 \), and did
not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00$, $F (1, 189) = .07, p = .790$). Table 6 includes the coefficients and significance level associated with each predictor in each model and shows that in the final model the only significant predictor in the final model was sex, such that males were more aggressive. Also, Table 6 indicates that in the second block of the regression model there was an inverse relationship between self-esteem and thoughtful route aggression. Based on the observed relationship between self-esteem and thoughtful route aggression ($r = -.12, p < .05$), the relationship in the final model between self-esteem and thoughtful route aggression could have been masked by a multicollinearity issue. No other relationships between the predictor variables and the dependent variable were significant in the correlation matrix, implying that multicollinearity likely did not have an effect in relation to those variables.

Table 6: Coefficients exploring relationship between exposure to policy critique, self-esteem, and thoughtful route aggression

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<th>Theoretic Variables</th>
<th>Interaction Term</th>
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Note: * $p < .05$, ** $p < .01$, *** $p < .001$

The third regression model computed to test hypothesis three focuses on impulsive route aggression as the dependent variable and explores the relationship between polarization, exposure to a policy critique, and aggression. The model utilizing
only control variables, was a significant fit to the data ($F (2, 153) = 9.60, p < .001$), and accounted for 11.2% of the variance on the dependent variable ($R^2 = .112$). Adding exposure to the conditions and polarization to the equation produced a model with significant fit to the data ($F (2, 153) = 9.60, p < .001$), accounted for 12.4% of the variance on the dependent variable ($R^2 = .124$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .013, F (2, 151) = 1.09, p = .340$). Finally adding the interaction term of polarization and exposure to the negative policy frame to the model was also a significant fit to the data ($F (5, 150) = 4.32, p < .01$), accounted for 12.6% of the variance on the dependent variable ($R^2 = .126$), but did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00, F (1, 150) = .29, p = .591$). Table 7 includes the coefficients and significance level associated with each predictor and shows that sex was the only significant predictor of impulsive route aggression, such that males were more aggressive. Since there was little observed relationship between impulsive route aggression and polarization in the correlation matrix ($r = .05, p > .05$), a similar relationship between impulsive route aggression and the interaction term of exposure to the negative policy frame and polarization ($r = .05, p > .05$), and an insignificant relationship between exposure to the negative policy frame and aggression ($r = .03, p > .05$), it is unlikely that multicollinearity masked an effect in this model.
Table 7: Coefficients exploring relationship between exposure to policy critique, polarization, and impulsive route aggression

<table>
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<th>Theoretic Variables</th>
<th>Interaction Term</th>
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Note: * \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)

The fourth regression model computed to test hypothesis three focuses on thoughtful route aggression as the dependent variable and explores the relationship between polarization, exposure to a policy critique, and aggression. The model utilizing only control variables, was not a significant fit to the data (\( F(2, 154) = 2.85, p = .061 \)), and only accounted for 3.6% of the variance on the dependent variable (\( R^2 = .036 \)). Adding exposure to the negative policy frame and polarization to the model still produced non-significant model fit (\( F(4, 151) = 1.48, p = .211 \)), accounted for 3.8% of the variance on the dependent variable (\( R^2 = .038 \)), and did not increase the variance accounted for by the model significantly (\( \Delta R^2 = .00, F(2, 151) = .15, p = .865 \)). Finally adding the interaction term of polarization and the exposure to the policy critique to the model was also not a significant fit to the data (\( F(5, 150) = 1.22, p = .303 \)), accounted for 3.9% of the variance on the dependent variable (\( R^2 = .039 \)), and did not increase the variance accounted for by the regression significantly (\( \Delta R^2 = .00, F(1, 150) = .20, p = .65 \)). In each model, no variables were significant predictors of thoughtful route
aggression. Since there was little observed relationship between thoughtful route aggression and polarization in the correlation matrix \( r = -0.01, p > 0.05 \), a similar lack of relationship between thoughtful route aggression and the interaction term of exposure to the negative policy frame and polarization \( r = 0.03, p > 0.05 \), and an insignificant relationship between exposure to the negative policy frame and aggression \( r = 0.05, p > 0.05 \) it is unlikely that multicollinearity masked an effect in this model.

These regression models do not indicate that there is not a complex relationship between self-esteem, polarization, exposure to political rhetoric, and aggression. These regression models indicate that sex is significantly related to impulsive route aggression, such that males were more aggressive. Also, one model provides limited evidence that self-esteem is inversely related with thoughtful route aggression. Therefore, hypothesis set three is not supported by this data.

Research question two asked how the relationship between exposure to a negative policy critique and aggression associated with both decision routes of the GAM would be moderated by partisanship compared to the control condition. To test this research questions, two different regression models were utilized. First, exposure to the negative policy frame was dummy coded as a referent compared to the control condition, and only those exposed to the control condition and the negative policy critique were selected for this analysis. To compute an interaction effect, the partisanship variable was multiplied by the exposure dummy code variable. The strongest correlation between the predictors in this model occurred between the interaction term of partisanship and exposure to the negative policy critique and the unmodified exposure to negative policy critique variable \( r = 0.93, p < 0.001 \). Such a high correlation indicates that a potential effect may be masked
by multicollinearity and care should be taken when interpreting results associated with the interaction term of partisanship and the negative policy critique.

The first regression model computed to test research question two focuses on impulsive route aggression as the dependent variable and explores the relationship between partisanship, exposure to the policy critique frame, and aggression. The model utilizing only control variables, was a significant fit to the data \((F (2, 192) = 11.68, \ p < .001)\), and accounted for 10.8% of the variance on the dependent variable \((R^2 = .108)\). Adding exposure to the negative policy frame and partisanship to the model produced a model with significant fit to the data \((F (4, 190) = 6.70, \ p < .001)\), accounted for 12.4% of the variance on the dependent variable \((R^2 = .124)\), but did not increase the variance accounted for by the model significantly \((\Delta R^2 = .02, \ F (2, 190) = 1.64, \ p = .197)\). Finally adding the interaction term of partisanship and the negative policy frame to the model was also a significant fit to the data \((F (5, 189) = 5.33, \ p < .001)\), accounted for 12.4% of the variance on the dependent variable \((R^2 = .124)\), but did not increase the variance accounted for by the regression significantly \((\Delta R^2 = .00, \ F (1, 189) = .01, \ p = .917)\).

Table 8 includes the coefficients and significance level associated with each predictor in each model and shows that sex was the only significant predictor of impulsive route aggression, in such a manner that males were more aggressive. Since there was a weak relationship between impulsive route aggression and partisanship in the correlation matrix \((r = -.13, \ p < .05)\), it is possible that an effect was masked by multicollinearity since there was such a strong relationship observed between the interaction term of partisanship and the negative policy frame and the unmodified partisanship variable \((r = .25, \ p < .001)\). A lack of relationships between the dependent variable and the other
predictors in the correlation matrix indicate that it is unlikely the effects of those variables were masked by multicollinearity.

Table 8: Coefficients exploring relationship between exposure to policy critique, partisanship, and impulsive route aggression

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<th>Theoretic Variables</th>
<th>Interaction Term</th>
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Note: * p < .05, ** p < .01, *** p < .001

The second regression model computed to test research question two focuses on thoughtful route aggression as the dependent variable and explores the relationship between partisanship, exposure to the policy frame, and aggression. The model utilizing only control variables, was not a significant fit to the data ($F(2, 192) = 2.06$, $p = .130$), and accounted for 2.1% of the variance on the dependent variable ($R^2 = .021$). Adding exposure to the negative policy frame and partisanship to the model significantly improved model fit to the data ($F(4, 190) = 4.25$, $p < .01$), accounted for 8.2% of the variance on the dependent variable ($R^2 = .082$), and increased the variance accounted for by the model significantly ($\Delta R^2 = .06$, $F(2, 190) = 6.31$, $p < .01$). Finally adding the interaction term of partisanship and exposure to the negative policy frame to the model produced a model that was still a significant fit to the data ($F(5, 189) = 3.60$, $p < .01$), accounted for 8.7% of the variance on the dependent variable ($R^2 = .087$), but did not
increase the variance accounted for by the regression significantly ($\Delta R^2 = .01, F(1, 189) = 1.04, p = .310$). Table 9 includes the coefficients and significance level associated with each predictor in each model and shows that there was some relationship between sex and aggression such that males were more aggressive, and also there was a relationship between partisanship and aggression such that conservatives were more aggressive. Since there was a weak relationship between thoughtful route aggression and partisanship in the correlation matrix ($r = .14, p < .05$), it is possible that the observed effect was masked in part by multicollinearity since there was such a strong relationship observed between the interaction term of partisanship and the negative policy frame and the unmodified partisanship variable ($r = .25, p < .001$). A lack of relationships between the dependent variable and the other predictors in the correlation matrix indicate that it is unlikely the effects of those variables were masked by multicollinearity.

Table 9: Coefficients exploring relationship between exposure to policy critique, partisanship, and thoughtful route aggression

<table>
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Note: * $p < .05$, ** $p < .01$, *** $p < .001$
Moderation Effects of the Threat Copula Frame

Hypothesis set four posited that when participants are exposed to threat copula frames that target a supported politician, exposure would interact with self-esteem in an inverse manner and with polarization in a direct manner to cause more aggression related to both decision routes of the GAM compared to the control condition. To test this hypothesis set four different regression models were utilized. First, exposure to the threat copula frame was dummy coded as a referent compared to the control condition, and only those exposed to the control condition and the threat copula frame were selected for this analysis. To compute an interaction effect, the self-esteem and polarization variables were multiplied by the exposure dummy code variable. The strongest correlation between the predictors in this model occurred between the interaction term of self-esteem and exposure to the threat copula frame and the unmodified exposure to threat copula frame variable \((r = .98, p < .001)\). Such a high correlation indicates that a potential effect may be masked by multicollinearity and care should be taken when interpreting results associated with the interaction term of self-esteem and the threat copula frame. Another strong correlation was observed between exposure to the threat copula frame and the interaction of exposure to the threat copula frame and polarization \((r = .73, p < .001)\) indicating that a similar issue may arise when utilizing that interaction term.

The first regression model computed to test hypothesis four focused on impulsive route aggression as the dependent variable and explores the relationship between self-esteem, exposure to the threat copula frame, and aggression. The model utilizing only control variables, was a significant fit to the data \((F(2, 189) = 18.47, p < .001)\), and accounted for 16.3% of the variance on the dependent variable \((R^2 = .163)\). Adding
exposure to the conditions and self-esteem to the model was also significant fit to the data 
\( (F (4, 187) = 9.72, p < .001) \), accounted for 17.2\% of the variance on the dependent 
variable \( (R^2 = .172) \), but did not increase the variance accounted for by the model 
significantly \( (\Delta R^2 = .01, F (2, 187) = .973, p = .380) \). Finally adding the interaction term 
of self-esteem and the condition to the model was also a significant fit to the data \( (F (5, 186) = 7.74, p < .001) \), accounted for 17.2\% of the variance on the dependent variable \( (R^2 = .172) \), but did not increase the variance accounted for by the regression significantly 
\( (\Delta R^2 = .00, F (1, 186) = .02, p = .893) \). Table 10 includes the coefficients and 
significance level associated with each predictor and shows that sex was the only 
significant predictor of impulsive route aggression, such that males were more 
aggressive. Since there was little observed relationship between impulsive route 
aggression and self-esteem in the correlation matrix \( (r = -.00, p > .05) \), a similar lack of 
relationship between impulsive route aggression and the interaction term of exposure to 
the threat copula frame and self-esteem \( (r = .03, p > .05) \), and an insignificant 
relationship between exposure to the threat copula frame and aggression \( (r = .04, p > .05) \) 
it is unlikely that multicollinearity masked an effect in this model.
Table 10: Coefficients exploring relationship between exposure to threat frame, self-esteem, and impulsive route aggression

<table>
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Note: * $p < .05$, ** $p < .01$, *** $p < .001$

The second regression model computed to test hypothesis four focused on thoughtful route aggression as the dependent variable and explores the relationship between self-esteem and aggression. The model utilizing only control variables, was not a significant fit to the data ($F(2, 189) = 2.33, p = .100$), and accounted for 2.4% of the variance on the dependent variable ($R^2 = .024$). Adding exposure to the threat copula frame and self-esteem to the model did not significantly improve model fit ($F(4, 187) = 2.19, p = .082$), accounted for 4.3% of the variance on the dependent variable ($R^2 = .043$), and did not increase the variance accounted for by the model significantly ($\Delta R^2 = .02, F(2, 187) = 1.86, p = .16$). Finally adding the interaction term of self-esteem and exposure to the threat copula frame to the model did not improve model fit ($F(5, 186) = 1.87, p = .105$), accounted for 4.7% of the variance on the dependent variable ($R^2 = .047$), and did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00, F(1, 186) = .846, p = .359$). None of the predictor variables in the final regression model
displayed a significant relationship with thoughtful route aggression. Since there was a weak observed relationship between thoughtful route aggression and self-esteem in the correlation matrix ($r = -0.12, p < 0.05$), a similar relationship between thoughtful route aggression and the interaction term of exposure to the threat copula frame and self-esteem ($r = -0.11, p < 0.05$), and an insignificant relationship between exposure to the threat copula frame and aggression ($r = -0.10, p > 0.05$) it is possible that multicollinearity masked an effect in this model.

The third regression model computed to test hypothesis four focuses on the impulsive route aggression as the dependent variable and explores the relationship between polarization, exposure to the threat copula frame, and aggression. The model utilizing only control variables, was a significant fit to the data ($F (2, 160) = 17.13, p < 0.001$), and accounted for 17.6% of the variance on the dependent variable ($R^2 = 0.176$). Adding exposure to the threat copula frame and polarization to the model was a significant fit to the data ($F (4, 158) = 9.27, p < 0.001$), accounted for 19.0% of the variance on the dependent variable ($R^2 = 0.190$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = 0.014, F (2, 158) = 1.29, p = 0.266$). Finally adding the interaction term of polarization and the exposure to the threat frame to the model was also a significant fit to the data ($F (5, 157) = 7.69, p < 0.001$), accounted for 19.7% of the variance on the dependent variable ($R^2 = 0.197$), but did not increase the variance accounted for by the regression significantly ($\Delta R^2 = 0.01, F (1, 157) = 1.29, p < 0.001$). Table 11 includes the coefficients and significance level associated with each predictor and shows that sex was the only significant predictor of impulsive route aggression in each model, such that males were more aggressive. Since there was little
observed relationship between impulsive route aggression and polarization in the correlation matrix \((r = .05, p > .05)\), a similar relationship between impulsive route aggression and the interaction term of exposure to the threat copula frame and polarization \((r = .07, p > .05)\), and an insignificant relationship between exposure to the threat copula frame and aggression \((r = .04, p > .05)\) it is unlikely that multicollinearity masked an effect in this model.

Table 11: Coefficients exploring relationship between exposure to threat frame, polarization, and impulsive route aggression

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Note: * \(p < .05\), ** \(p < .01\), *** \(p < .001\)

The fourth regression model computed to test hypothesis four focuses on thoughtful route aggression as the dependent variable and explores the relationship between polarization and aggression. The model utilizing only control variables, was not a significant fit to the data \((F(2, 160) = 2.76, p = .07)\), and accounted for 3.3% of the variance on the dependent variable \((R^2 = .033)\). Adding exposure to the threat frame and polarization to the equation produced a model that was still not a significant fit to the data \((F(4, 158) = 1.78, p = .135)\), accounted for 4.3% of the variance on the dependent variable \((R^2 = .043)\), but did not increase the variance accounted for by the model.
significantly ($\Delta R^2 = .01, F(2, 158) = .81, p = .446$). Finally adding the interaction term of polarization and the condition to the model was also not a significant fit to the data ($F(5, 157) = 1.47, p = .202$), accounted for 4.5% of the variance on the dependent variable ($R^2 = .045$), and did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00, F(1, 157) = .25, p = .62$). None of the variables were significant predictors of thoughtful route aggression. Since there was little observed relationship between thoughtful route aggression and polarization in the correlation matrix ($r = -.01, p > .05$), a similar relationship between thoughtful route aggression and the interaction term of exposure to the threat copula frame and polarization ($r = -.06, p > .05$), and an insignificant relationship between exposure to the threat copula frame and aggression ($r = -.10, p > .05$) it is unlikely that multicollinearity masked an effect in this model.

These regression models do not indicate that there is a complex relationship between self-esteem, polarization, exposure to political rhetoric, and aggression. Utilizing the previous four regression models the data showed that there is a significant relationship between sex and impulsive route aggression, such that males were more aggressive. There were no observed relationships between exposure to a threat copula frame, any of the potential moderators, and aggression. This implies that the data does not support hypothesis set four.

Research question three asked how the relationship between exposure to a threat copula frame and aggression associated with both decision routes of the GAM would be moderated by partisanship compared to the control condition. To test this research questions, two different regression models were utilized. First, exposure to the threat copula frame was dummy coded as a referent compared to the control condition, and only
those exposed to the control condition and the threat copula frame were selected for this analysis. To compute an interaction effect, the partisanship variable was multiplied by the exposure dummy code variable. The strongest correlation between the predictors in this model occurred between the interaction term of partisanship and exposure to the threat copula frame and the unmodified exposure to threat copula frame variable ($r = .93, p < .001$). Such a high correlation indicates that a potential effect may be masked by multicollinearity and care should be taken when interpreting results associated with the interaction term of partisanship and the threat copula frame.

The first regression model computed to research question two focused on impulsive route aggression as the dependent variable and explores the relationship between partisanship, exposure to the threat copula frame, and aggression. The model utilizing only control variables, was a significant fit to the data ($F (2, 189) = 18.47, p < .001$), and accounted for 16.3% of the variance on the dependent variable ($R^2 = .163$). Adding exposure to the threat copula frame and partisanship to the model produced a model with significant fit to the data ($F (4, 187) = 9.84, p < .001$), accounted for 17.4% of the variance on the dependent variable ($R^2 = .174$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .01, F (2, 187) = 1.18, p = .310$). Finally adding the interaction term of partisanship and the threat copula frame to the model was also a significant fit to the data ($F (5, 186) = 7.93, p < .001$), accounted for 17.4% of the variance on the dependent variable ($R^2 = .174$), but did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00, F (1, 186) = .01, p = .929$).

Table 12 includes the coefficients and significance level associated with each predictor in each model and shows that sex was the only significant predictor of impulsive route
aggression, in such a manner that males were more aggressive. Since there was a weak observed relationship between impulsive route aggression and partisanship in the correlation matrix ($r = -.13, p < .05$), a insignificant relationship between impulsive route aggression and the interaction term of exposure to the threat copula frame and partisanship ($r = .00, p > .05$), and an insignificant relationship between exposure to the threat copula frame and aggression ($r = .04, p > .05$) it is possible that multicollinearity masked an effect of partisanship on aggression in this model since partisanship was highly correlated with the interaction term ($r = .22, p < .001$).

Table 12: Coefficients exploring relationship between exposure to threat frame, partisanship, and impulsive route aggression

<table>
<thead>
<tr>
<th></th>
<th>Control Variables</th>
<th>Theoretic Variables</th>
<th>Interaction Term</th>
</tr>
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<td>t-value</td>
<td>β</td>
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</tr>
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<td>.11</td>
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<td>.07</td>
</tr>
<tr>
<td>Partisanship</td>
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<td>-.05</td>
</tr>
<tr>
<td>Interaction Term</td>
<td></td>
<td></td>
<td>.02</td>
</tr>
</tbody>
</table>

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

The second regression model computed to test research question three focused on thoughtful route aggression as the dependent variable and explores the relationship between partisanship, exposure to the threat frame, and aggression. The model utilizing only control variables, was not a significant fit to the data ($F(2, 189) = 2.33, p = .100$), and accounted for 2.4% of the variance on the dependent variable ($R^2 = .024$). Adding exposure to the threat copula frame and partisanship to the model significantly improved
model fit to the data \((F(4, 187) = 2.86, p < .05)\), accounted for 5.8% of the variance on the dependent variable \((R^2 = .058)\), and increased the variance accounted for by the model significantly \((\Delta R^2 = .03, F(2, 187) = 3.33, p < .05)\). Finally adding the interaction term of partisanship and exposure to the threat copula frame to the model produced a model that was also a significant fit to the data \((F(5, 186) = 3.55, p < .01)\), accounted for 8.7% of the variance on the dependent variable \((R^2 = .087)\), and increased the variance accounted for by the regression significantly \((\Delta R^2 = .03, F(1, 186) = 6.03, p < .05)\).

Table 13 includes the coefficients and significance level associated with each predictor in each model and shows that in there was a relationship between sex and aggression such that males were more aggressive, there was a relationship between partisanship and aggression such that conservatives were more aggressive, and there was a relationship between the interaction term and thoughtful route aggression. Since there was a weak observed relationship between thoughtful route aggression and partisanship in the correlation matrix \((r = .14, p < .05)\), a insignificant relationship between thoughtful route aggression and the interaction term of exposure to the threat copula frame and partisanship \((r = -.11, p > .05)\), and an insignificant relationship between exposure to the threat copula frame and aggression \((r = -.10, p > .05)\) it is possible that multicollinearity masked the extent of the effect of partisanship on aggression in this model since partisanship was highly correlated with the interaction term \((r = .22, p < .001)\).
To explore the significant interaction observed in the previous model when testing research question three, a new regression model was computed. This model included only exposure to the threat condition, partisanship, and the interaction term and used thoughtful route aggression as the dependent variable. This model was a significant fit to the data ($F(3, 193) = 3.95, p < .01$) and accounted for 5.8% of the variance on the dependent variable ($R^2 = .058$). The regression equation for this model was $Y_{hat} = 2.064 + 0.817(\text{Condition Dummy}) + 0.619(\text{Partisanship}) - 0.708(\text{Interaction Term})$. The extreme values of each variable were input into that equation and graphed in Figure 3 so that the interaction relationship could be observed. The graph shows that when exposed to the positive advertisement, conservatives were more aggressive than liberals, but when exposed to the threat copula frame the levels of aggression between the two groups were nearly equal, with liberals being slightly more aggressive.
Figure 3: Graph of interaction effect between partisanship and exposure to the condition predicting thoughtful route aggression

**Effect Size of Moderation Effects**

Research question set four asks whether exposure to a negative policy frame or a threat copula frame would cause more aggression when interacting with another term, including self-esteem, polarization, and partisanship, on both decision routes of the GAM. To test this research question set six different regression models were utilized. First, exposure to the threat copula frame was dummy coded as a referent compared to the negative policy frame, and only those exposed to the negative policy frame and the
threat copula frame were selected for this analysis. To compute an interaction effect, the self-esteem, polarization, and partisanship variables were multiplied by the exposure dummy code variable. In this section the same issues related to the relationships between the interaction terms and exposure variables are present, indicating that care must be taken with each model.

The first regression model computed to test research question two focused on impulsive route aggression as the dependent variable and explores the relationship between self-esteem, exposure to the policy critique, and the threat copula frame, and aggression. The model utilizing only control variables, was a significant fit to the data ($F(2, 204) = 17.79, p < .001$), and accounted for 14.9% of the variance on the dependent variable ($R^2 = .149$). Adding exposure to the conditions and self-esteem to the model was a significant fit to the data ($F(4, 202) = 8.82, p < .001$), accounted for 14.9% of the variance on the dependent variable ($R^2 = .149$), but did not increase the variance accounted for by the model significantly ($\Delta R^2 = .00, F(2, 202) = .03, p = .976$). Finally adding the interaction term of self-esteem and the condition to the model was also a significant fit to the data ($F(5, 201) = 7.04, p < .001$), accounted for 14.9% of the variance on the dependent variable ($R^2 = .149$), but did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00, F(1, 201) = .05, p = .82$). Table 14 includes the coefficients and significance level associated with each predictor and shows that sex and age were both significant predictors of impulsive route aggression, such that males and older people were more aggressive. Since there was an insignificant relationship between impulsive route aggression and self-esteem in the correlation matrix ($r = -.00, p > .05$), a insignificant relationship between impulsive route aggression and the
interaction term of exposure to the threat copula frame and self-esteem \((r = .03, p > .05)\), and an insignificant relationship between exposure to the threat copula frame and aggression \((r = .04, p > .05)\) it is unlikely that multicollinearity masked any effects in this model.

Table 14: Coefficients exploring relationship between exposure to both conditions, self-esteem, and impulsive route aggression

<table>
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<th>Theoretic Variables</th>
<th>Interaction Term</th>
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<td>(\beta) t-value</td>
<td>(\beta) t-value</td>
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<td>.14 2.08*</td>
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<td>.08 .20</td>
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</tr>
<tr>
<td>Interaction Term</td>
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<td>-.09 -.23</td>
<td></td>
</tr>
</tbody>
</table>

Note: * \(p < .05\), ** \(p < .01\), *** \(p < .001\)

The second regression model computed to test research question two focuses on thoughtful route aggression as the dependent variable and explores the relationship between self-esteem, exposure to both conditions, and aggression. The model utilizing only control variables, was not a significant fit to the data \((F (2, 204) = .44, p = .645)\), and accounted for .4% of the variance on the dependent variable \((R^2 = .004)\). Adding exposure to the conditions and self-esteem to the model was not a significant fit to the data \((F (4, 202) = 1.43, p = .227)\), accounted for 2.7% of the variance on the dependent variable \((R^2 = .027)\), and did not increase the variance accounted for by the model significantly \((\Delta R^2 = .02, F (2, 202) = 2.40, p = .093)\). Finally adding the interaction term of self-esteem and the condition to the model was also not a significant fit to the data \((F \)
(5, 201) = 1.46, \( p = .206 \), accounted for 3.5% of the variance on the dependent variable (\( R^2 = .035 \)), and did not increase the variance accounted for by the regression significantly (\( \Delta R^2 = .01, F (1, 201) = 1.56, p = .214 \)). None of the variables of theoretic interest were significant predictors of thoughtful route aggression. Since there was an weak relationship between thoughtful route aggression and self-esteem in the correlation matrix (\( r = -.12, p < .05 \)), a weak relationship between thoughtful route aggression and the interaction term of exposure to the threat copula frame and self-esteem (\( r = -.11, p < .05 \)), and an insignificant relationship between exposure to the threat copula frame and aggression (\( r = .04, p > .05 \)) it is possible that multicollinearity masked effects in this model.

The third regression model computed to test research question two focuses on the impulsive route aggression as the dependent variable and explores the relationship between polarization, exposure to both experimental conditions, and aggression. The model utilizing only control variables, was a significant fit to the data (\( F (2, 166) = 14.19, p < .001 \)), and accounted for 14.6% of the variance on the dependent variable (\( R^2 = .146 \)). Adding exposure to the conditions and polarization to the model was a significant fit to the data (\( F (4, 164) = 7.16, p < .001 \)), accounted for 14.9% of the variance on the dependent variable (\( R^2 = .149 \)), but did not increase the variance accounted for by the model significantly (\( \Delta R^2 = .00, F (2, 164) = .26, p = .774 \)). Finally adding the interaction term of polarization and the condition to the model was also a significant fit to the data (\( F (5, 163) = 5.74, p < .001 \)), accounted for 15.0% of the variance on the dependent variable (\( R^2 = .150 \)), but did not increase the variance accounted for by the regression significantly (\( \Delta R^2 = .00, F (1, 163) = .21, p = .648 \)).
Table 15 includes the coefficients and significance level associated with each predictor and shows that sex and age were both significant predictors of impulsive route aggression, such that males and older people were more aggressive. Since there was an insignificant relationship between impulsive route aggression and polarization in the correlation matrix \((r = .05, p > .05)\), an insignificant relationship between impulsive route aggression and the interaction term of exposure to the threat copula frame and polarization \((r = .07, p > .05)\), and an insignificant relationship between exposure to the threat copula frame and aggression \((r = .04, p > .05)\) it is unlikely that multicollinearity masked any effects in this model.

Table 15: Coefficients exploring relationship between exposure to both conditions, polarization, and impulsive route aggression

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<th>Control Variables</th>
<th>Theoretic Variables</th>
<th>Interaction Term</th>
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<td>.17 2.27*</td>
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<td>Interaction Term</td>
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<td>.06 .46</td>
</tr>
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</table>

Note: * p < .05, ** p < .01, *** p < .001

The fourth regression model computed to test research question two focuses on thoughtful route aggression as the dependent variable and explores the relationship between polarization, exposure to both conditions, and aggression. The model utilizing only control variables, was not a significant fit to the data \((F (2, 166) = .15, p = .860)\), and accounted for .2% of the variance on the dependent variable \((R^2 = .002)\). None of the
control variables were significant predictors of thoughtful route aggression. Adding exposure to the conditions and polarization to the model was also not a significant fit to the data \((F(4, 164) = .291, p = .884)\), accounted for .7% of the variance on the dependent variable \((R^2 = .007)\), and did not increase the variance accounted for by the model significantly \((\Delta R^2 = .01, F(2, 164) = .43, p = .650)\). Finally adding the interaction term of polarization and the condition to the model did not improve model fit \((F(5, 163) = .232, p = .948)\), accounted for .7% of the variance on the dependent variable \((R^2 = .007)\), and did not increase the variance accounted for by the regression significantly \((\Delta R^2 = .00, F(1, 163) = .00, p = .958)\). None of the variables in this model were significant predictors of thoughtful route aggression. Since there was an insignificant relationship between thoughtful route aggression and polarization in the correlation matrix \((r = -.01, p > .05)\), a insignificant relationship between thoughtful route aggression and the interaction term of exposure to the threat copula frame and polarization \((r = -.06, p > .05)\), and an insignificant relationship between exposure to the threat copula frame and aggression \((r = .10, p > .05)\) it is unlikely that multicollinearity masked any effects in this model.

The fifth regression model computed to research question four focuses on impulsive route aggression as the dependent variable and explores the relationship between partisanship, exposure to both conditions, and aggression. The model utilizing only control variables, was a significant fit to the data \((F(2, 204) = 17.79, p < .001)\), and accounted for 14.9% of the variance on the dependent variable \((R^2 = .149)\). Adding exposure to the conditions and partisanship to the model produced a model with significant fit to the data \((F(4, 202) = 9.00, p < .001)\), accounted for 15.1% of the variance on the dependent variable \((R^2 = .151)\), but did not increase the variance
accounted for by the model significantly ($\Delta R^2 = .00, F(2, 202) = .326, p = .722$). Finally adding the interaction term of partisanship and the condition exposure to the model was also a significant fit to the data ($F(5, 201) = 7.17, p < .001$), accounted for 15.1% of the variance on the dependent variable ($R^2 = .151$), but also did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .00, F(1, 201) = .03, p = .872$).

Table 16 includes the coefficients and significance level associated with each predictor in each model and shows that sex and age were the only significant predictors of impulsive route aggression, in such a manner that males and older people were more aggressive. Since there was a weak relationship between impulsive route aggression and partisanship in the correlation matrix ($r = -.13, p < .05$), a insignificant relationship between impulsive route aggression and the interaction term of exposure to the threat copula frame and partisanship ($r = .00, p > .05$), and an insignificant relationship between exposure to the threat copula frame and aggression ($r = .04, p > .05$) it is possible that multicollinearity masked an effect of partisanship in this model, since partisanship was highly related to the interaction term ($r = .22, p < .001$).
Table 16: Coefficients exploring relationship between exposure to both conditions, partisanship, and impulsive route aggression

<table>
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<th>Theoretic Variables</th>
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Note 1: * p < .05, ** p < .01, *** p < .001

The second regression model computed to test research question four focuses on thoughtful route aggression as the dependent variable and explores the relationship between partisanship, exposure to both conditions, and aggression. The model utilizing only control variables, was not a significant fit to the data ($F(2, 204) = .44, p = .645$), and accounted for .4% of the variance on the dependent variable ($R^2 = .004$). Adding exposure to the conditions and partisanship to the model did not significantly improve model fit to the data ($F(4, 202) = 1.09, p = .361$), accounted for 2.1% of the variance on the dependent variable ($R^2 = .021$), and did not increase the variance accounted for by the model significantly ($\Delta R^2 = .02, F(2, 202) = 1.75, p = .177$). Finally adding the interaction term of partisanship and exposure to the threat copula frame to the model again did not produce a model that was a significant fit to the data ($F(5, 201) = 1.373, p = .236$), accounted for 3.3% of the variance on the dependent variable ($R^2 = .033$), and did not increase the variance accounted for by the regression significantly ($\Delta R^2 = .01, F(1, 201) = 2.46, p = .119$). There were no significant predictors of thoughtful route
aggression associated with this model. Since there was a weak relationship between thoughtful route aggression and partisanship in the correlation matrix ($r = .14, p < .05$), a insignificant relationship between thoughtful route aggression and the interaction term of exposure to the threat copula frame and partisanship ($r = -.11, p > .05$), and an insignificant relationship between exposure to the threat copula frame and aggression ($r = .10, p > .05$) it is possible that multicollinearity masked an effect of partisanship in this model, since partisanship was highly related to the interaction term ($r = .22, p < .001$).

These regression models do not indicate that there is not a complex relationship between self-esteem, polarization, partisanship exposure to political rhetoric from both conditions, and aggression. Within the previous six regression models relationships between sex, age, and impulsive route aggression were observed, such that men and older people were more aggressive. There were no relationships observed relating to thoughtful route aggression at all. Also, there were not relationships observed between exposure to either policy critiques or threat copula frames and aggression utilizing these models. This implies that exposure to the frames had little influence on aggression and neither causes significantly more aggression than the other.
CHAPTER 5: DISCUSSION

This study explored numerous potential effects of negative policy frames and threat copula frames on impulsive route and thoughtful route aggression. Many of these effects were predicted by previous studies on Terror Management Theory, others were predicted based on the logic that political orientation will make up a larger portion of the cultural worldviews of people that are polarized, and still others were merely posited for exploratory purposes. All the effects predicted were not supported by this data and only a few of the exploratory analyses produced significant results related to exposure to political rhetoric.

First it is important to explore why very few effects were observed. One potential issue was related to the constructed advertisements used as media stimuli. The particular ads in this study were constructed so that the same language could be used to critique both candidates and remove a potential confound from the results. However, to accomplish this task, only general statements that could be applied to both candidates could be used to critique both candidates. Further, while the ads utilized critiques that both campaigns had been subject to, the sample may not have made connections with the language in the ads to the actual positions of the candidates that opened them up to critique. Both of these traits likely had an effect on the believability of the ads and may have produced the lack of observed effects on aggression.

Another potential reason for why limited effects were observed may have been the timing of the experiment. This data was collected in the two weeks prior to the 2012 election. It is important to note that the general election began several months prior to
data collection and the primary season extended to more than a year prior to data collection. Since data collection occurred so late in the election, it could have been the case that political attitudes among the sample were set and political advertisements would have little effect. Also, since the political advertising climate during this period was likely intense, the participants could have paid less attention to the advertisements utilized in this study since there were so many different advertisements that they were being exposed to.

Finally, most of the predictions made in this analysis were based on the Terror Management Theory literature, within which the mortality of the individual was made salient (Greenberg et al., 1997; McGregor et al., 1998). While, the authors of TMT argue that mere exposure to an argument or individual that threatens a worldview is enough to stimulate a reaction (e.g. Solomon et al., 1991), it could be the case that mere exposure was not enough to stimulate an reaction. This possibility would indicate that making death salient prior to exposure to such rhetoric might make an effect observable. It is also possible that there are other psychological processes that can be activated that might make an aggressive reaction observable. Further research into the psychological processes that may lead to an aggressive reaction is necessary, along with content analyses of political rhetoric to see if stimuli that could activate those processes is used often in political speech.

However, there were some notable effects that need to be addressed. The relationship between the control variables and impulsive route aggression were robust and replicated across several regression models. In nearly all models sex was a significant predictor of impulsive route aggression, such that males were more aggressive. This
effect replicates findings from violent media effects literature, which indicates that in general males tend to be more aggressive, especially related to direct aggressive conflicts, which are measured by the impulsive route aggression scale (Anderson & Bushman, 2002a). Age was also linked with impulsive route aggression, such that older people were more aggressive in a few models. This finding is not indicated in the extant violent media effects or TMT literature and may very well be a function of the sample rather than a generalizable effect. This would imply that since the sample in this project was made up of young individuals, without much range in age that the effect was observed because the older people in the sample were still very young compared to the general population, meaning that young people may be more impulsively aggressive. Further research is needed on this effect.

This study also found limited evidence that self-esteem was linked in an inverse manner with thoughtful route aggression. There were no interaction effects between exposure to political rhetoric, self-esteem, and aggression, but there was a significant relationship between self-esteem and thoughtful route aggression in a few models. This finding indicates that those who had lower levels of self-esteem were more prone to thoughtful route aggression in a few models. This finding is limited and future research should explore the relationship between thoughtful route aggression that focuses on political events and how a person regards themselves.

This study also revealed that conservatives had higher levels of thoughtful route aggression in a few different models. This effect was not related to exposure to political rhetoric, but was simply a trait of conservatives within the sample. This finding is limited and was only revealed in a few models. However, there are several potential theoretical
explanations for such an effect. It could be the case that there is a difference between the conservative and liberal worldviews that potentially makes conservatives more aggressive (Graham et al., 2009; Haidt & Graham, 2007; Lakoff, 2002). Past research in this area have also linked Conservativism with aggression directly (Johnson, McDermott, Cowden, & Tingley, 2012), indicating stronger support that greater aggression could be linked with the conservative cultural worldview directly. That there were not differences on the level of aggression between the liberal and conservative worldviews associated with impulsive route aggression, but there were with thoughtful route aggression, this indicates that conservativism may be linked with a particular type of aggression, namely that associated with the thoughtful route. Future research should explore the way aggression associated with both decision routes relates to the liberal and conservative worldviews.

The differences in the level of aggression between liberals and conservatives also could have been an effect of the challenger status of the conservative candidate. In the 2012 the Democrat, Obama, was the sitting president and the Republican, Romney, was the challenger. If an individual feels that they are subject to the rule of the political out-group, who they do not agree with and actively dislike, that individual may feel oppressed and an aggression may be higher as a trait at that point in time. Future studies should examine the role of incumbency and challenger status along with the role of partisanship in aggression.

The finding that conservatives were more aggressive also likely influenced the significance of the interaction between exposure to threat copula frames and partisanship to produce greater aggression compared to the positive advertisement. This was the only
effect observed between exposure to the threat copula frame, or even the negative policy frame, and increased aggression. The effect was such that liberals exposed to threat copula frame targeting Obama were more aggressive than liberals exposed to a positive advertisement praising Obama. This effect indicates that when exposed to a threat copula frame targeting a supported politician, the liberal participant’s cultural worldview was threatened and greater aggression resulted, as is generally predicted by TMT (Greenberg et al., 1997). This effect was only limited to liberals however, which likely occurred because of the high levels of aggression which conservatives already had, without exposure to any political rhetoric. Also, liberals could have been primed to become aggressive based on threat copula frame tactics since this was an attack in circulation about Obama, prior to and during the 2012 election (Reifowitz, 2012). This would imply that the surrounding political context and the arguments/attacks currently being circulated within the political system might influence aggression or potentially the extent of an aggressive effect.

These results also indicate a lack of relationship between exposure to political rhetoric and aggression within an interpersonal conflict. This may potentially indicate that the impulsive route is not associated with political rhetoric while the thoughtful route of aggression is. It could also indicate that an aggression scale not situated towards an interpersonal conflict, but some sort of impulsive political conflict may be more likely to detect effects. Future research should focus on the roles of impulsive and thoughtful political violence. It could be the case that different factors of the thoughtful route aggression utilized in this study could factor out and provide a more impulsive route scale
that represents political conflict better than the interpersonal conflict scale. It could also be that an entirely new scale should be derived to capture this phenomenon.

The limited results of this study make it difficult to theorize about the role of aggression in democracy. In fact these results raise more questions than they provide answers. However, it is clear from these results that there may be differences between the liberal and conservative worldviews that make different political arguments more likely to inspire aggressive reactions. This relationship should be explored by future research. Also, the role of the political parties as incumbents and challengers should also be explored in future research in this area. Finally, it may be the case that this effect is influenced by the political context, with the lack of significant results being potentially caused by the proximity of data collection to the election.

**Limitations of this Study**

Besides the lack of results there were several limitations to this study. First, the use of a convenience sample is a limitation. While a meta-analysis of negative advertisement studies indicate that there are no significant differences in effect size between student samples and samples that are representative of the general population, aggression was not included as an analyzed variable (Lau et al., 1999). It could be the case that students may be more or less prone to aggressive responses than the general population. Future research should explore aggression within a sample that is representative of the general population. Also the nature of the experiment limits its generalizability to outside groups. It is unclear to what extent people are exposed to these
types of frames in their everyday lives and it is also unclear the extent to which this exposure can create lasting changes in aggression.

Also, this study focuses on effects within a student sample and it is very unlikely that any of these students will be future political assassins. While it may be the case that thoughts about aggression are linked with violent actions (Anderson & Bushman, 2002a), it is unknown whether thoughts about violence in politics are linked with political violence. In fact, scholars know little about the actual effects of the aggression within the politics. Future research should focus on this subject and relate aggression with other measurable variables linked to different forms of political behaviors to explore this more in depth.

Also, the mocked up advertisements used as stimulus materials were not real. The advertisements were specifically made to be similar, therefore likely limiting the believability of the advertisements. Since this data was collected during the crowded campaign landscape of the 2012 election, within which a lot of different advertisements were aired, the participants could have also ignored these mocked up advertisements, or the exposure to so many other advertisements could have provided some inoculation against the stimulus materials.

Finally, the predictions in this study were based on TMT without a mortality salience prime. This could have directly led to the lack of observable effects. Future research should incorporate a mortality salience prime and explore other potential psychological processes that could lead to aggression that may be caused by political rhetoric.
Conclusion

This project set out to explore the effects of negative policy frames and threat copula frames on aggression. Very limited results were found. The one significant result related to exposure to a condition indicates that liberals were affected by threat copula frames to greater levels of aggression compared to positive advertisements. This effect could have both been caused either by differences in the liberal and cultural worldviews and/or an effect of the incumbency/challenger status of the political groups. Future research should focus on both of these areas specifically analyzing differences in partisanship, incumbency and challenger status, and the surrounding political context for influences on aggression. Also, future research should focus on the role of aggression within the political system and relate it to other variables that have been related to political activities by prior research.

Each of these lines of research will likely be fruitful and each could explain different phenomenon occurring in our representative democratic system. If aggression is linked to a particular worldview, further research should be done of the different types of political rhetoric and arguments that causes such an effect for each group. It could be the case that the specific worldviews, and the intellectual bases that govern each on issues of morality (e.g. Graham et al., 2009; Haidt & Graham, 2007) indicates that different types of appeals could be effective on different groups.

If aggression is linked to the incumbency/challenger status of the parties during type it is more likely the case that aggression is somewhat built into our representative democratic system. Further research into the temporal nature of the effect could indicate that the extent of the aggressive reaction varies over time dependent on the surrounding
political context. For example, it could very well be the case that at times of increased national stress, like a widespread economic recession or times of prolonged war, that the effect is intensified compared to more prosperous and peaceful times.

Also, future research into the role of aggression in the democratic system and how it relates to other attitudes about politics could help researchers understand how the level of aggression in the individual governs political behaviors. Political cynicism, or the level of negative feelings associated with politics and politicians that represent a lack of belief in the legitimacy of government (Agger, Goldstein, & Pearl, 1961; Cappella & Jamieson, 1996), seems like a variable that is related to aggression in the political system since they both explore similar negative feelings towards politics. Future research should explore political cynicism and other types of political attitudes in relation to aggression.

While this study did not find broad over-arching relationships between exposure to political rhetoric and aggression the results indicate several areas that should be explored by further research. These areas include the role of differences in the liberal and conservative worldviews on aggression, the role of the challenger/incumbency status in of the parties on aggression, and how aggression fits with other types of political attitudes. Analyses in these areas will help understand the role of aggression in the political system and many of the potential causes of a very complicated effect.
APPENDIX 1

Transcripts for each constructed advertisement

Negative Policy Critique Condition

[Name] does not have an economic policy that will successfully alleviate the pains that Americans are feeling.

In fact, his policies are the exact same that got us into this mess to begin with. Working families are suffering, while [Name] keeps pushing an economic policy that has not worked and will not work. These misguided policies are hindering the economic recovery and slowing job growth.

Further, [Name]’s plan for Medicare reform will hurt the economy as well. Money will be taken from the program forcing seniors on already tight budgets to pay more for their healthcare. This will have adverse effects on the struggling economy and slow job growth on top of putting undue stress on seniors.

It is up to you to make a choice between an economic plan that will work and one that will not in this election cycle. It has never been more important for Americans to come together and make a choice that will bring a better tomorrow to our world.

Advertisement Targeting Obama: [http://www.youtube.com/watch?v=unNs9e-pGGU](http://www.youtube.com/watch?v=unNs9e-pGGU)

Advertisement Targeting Romney: [http://www.youtube.com/watch?v=1jo2TiWLjdc](http://www.youtube.com/watch?v=1jo2TiWLjdc)
[Name] holds un-American beliefs that threaten our way of life. That this man could potentially hold the highest office in the land for the next four years should frighten all Americans.

An administration that is headed by [Name] will result in tyranny against American’s and a retraction of our freedoms. Make no mistake this election is a decision that will have ramifications for our children and our children’s children.

This descent into tyranny is not what the brave American’s throughout history have fought for. America is the land of the home of the free and the brave. This election you need to make the brave choice to defend your freedom against [Name] and his forces of tyranny.

It is up to you to make a choice between tyranny and freedom in this election cycle. It has never been more important for Americans to come together and protect the freedoms that make America great.

Advertisement Targeting Obama: http://www.youtube.com/watch?v=wp0iBGOxY0
Advertisement Targeting Romney: http://www.youtube.com/watch?v=7OPA1Fj7RwI
Positive Advertisement Condition

He has worked and will continue to work through the issues that people are struggling with. [Name] cares about you and your problems. He realizes that it is the government’s job to protect the people, and he plans to do just that. These are dire times and we need [Name]’s abilities to lead us out of it.

[Name] will protect American jobs at home and American interests over seas. He will be strong presence in the White House who will lead Congress to pass policies that help the American people. [Name]’s economic and job policies tackle the economy head on and will make it better.

This election make a choice and help America. It has never been more important for Americans to come together and make a choice that will bring a better tomorrow to our world.

Advertisement Supporting Obama: http://www.youtube.com/watch?v=j3KvhNP0J8
Advertisement Supporting Romney: http://www.youtube.com/watch?v=QJGfVAHDzVo

Note: In each commercial [Name] in brackets will be replaced with either “Barack Obama” or “Mitt Romney” depending on who is being criticized or acclaimed by the ad. Bolded words appear on screen during the advertisement.
APPENDIX 2

This section contains the acceptance of political violence scale that was adapted from Kalmoe (2011). The original items in the scale are in italic typeface and the added items are in normal typeface. All items were responded to on a scale from 1 (Completely Disagree) to 7 (Completely Agree).

1. The tree of liberty needs to be nourished with the blood of revolution.
2. If we can’t find a peaceful solution to the problems facing America, true patriots may need to take matters into their own hands.
3. When politics fail, violence is sometimes necessary.
4. I can see why some people support violent revolution.
5. If elections don’t fix America’s problems, we may need to pursue 2\textsuperscript{nd} Amendment remedies.
6. I can foresee a day when violent measures may need to be taken to protect the United States from itself.
7. \textit{When politicians are damaging the country, citizens should send threats to scare them straight.}
8. \textit{The worst politicians should get a brick through the window to make them stop hurting the country.}
9. \textit{Sometimes the only way to stop bad government is with physical force.}
10. \textit{Some of the problems citizens have with government could be fixed with a few well-aimed bullets.}
11. \textit{Citizens upset by government should never use violence to express their feelings.}

(Reverse Coded Item)
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