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# UNCOVERING THE SUB-TEXT: PRESIDENTS' EMOTIONAL EXPRESSIONS AND MAJOR USES OF FORCE

by

# ELIAS ASSAF B.S. University of Central Florida, 2011

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts in the Department of Political Science in the College of Sciences at the University of Central Florida Orlando, Florida

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# ABSTRACT

The global context of decision making continues to adapt in response to international threats. Political psychologists have therefore considered decision making processes regarding major uses of force a key area of interest. Although presidential personality has been widely studied as a mitigating factor in the decision making patterns leading to uses of force, traditional theories have not accounted for the emotions of individuals as they affect political actions and are used to frame public perception of the use of force. This thesis therefore measures expressed emotion and cognitive expressions in the form of expressed aggression, passivity, blame, praise, certainty, realism, and optimism as a means of predicting subsequent major uses of force. Since aggression and blame are precipitated by anger and perceived vulnerability, they are theorized to foreshadow increased uses of force (Gardner and Moore 2008). Conversely, passivity and praise are indicative of empathy and joy respectively, and are not expected to precede aggressive behavior conducted to maintain emotional regulation (Roberton, Daffer, and Bucks 2012). Additionally, the three cognitive variables of interest expand on existing literature on beliefs and decision making expounded by such authors as Walker (2010), Winter (2003) and Hermann (2003). DICTION 6.0 is used to analyze all text data of presidential news conferences, candidate debates, and State of the Union speeches given between 1945 and 2000 stored by The American Presidency Project (Hart and Carroll 2012). Howell and Pevehouse's (2005) quantitative assessment of quarterly U.S. uses of force between 1945 and 2000 is employed as a means of quantifying instances of major uses of force. Results show systematic differences among the traits expressed by presidents, with most expressions staying consistent across spontaneous speech contexts. Additionally, State of the Union speeches consistently yielded the highest

scores across the expressed traits measured; supporting the theory that prepared speech is used to emotionally frame situations and setup emotional interpretations of events to present to the public. Time sensitive regression analyses indicate that expressed aggression within the context of State of the Union Addresses is the only significant predictor of major uses of force by the administration. That being said, other studies may use the comparative findings presented herein to further establish a robust model of personality that accounts for individual dispositions toward emotional expression as a means of framing the emotional interpretation of events by audiences.

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# **INTRODUCTION**

The fundamental question that this thesis seeks to address is that of whether or not variations in the emotional and cognitive states of U.S. presidents affect the decision to engage in major uses of force. The use of force is a topic that has been at the forefront of security and peace research in political science; it has been studied within the context of rational choice through the application of behavioral economics, in foreign policy decision making analysis through the frameworks of political psychology, and through the lens of the diversionary theory of war (Binmore and Dasgupta 1987, Fearon 1995, Fordham 1998, Lupia, McCubbins, and Popkin 2000). These initiatives have grown in importance as analysts look to adapt their models to the challenge of predicting uses of force against non-state actors and political groups that remain on the fringe of the political system. However, these models have often lacked individual-level analysis of leadership style as a significant consideration in their predictions (Walker 2010). Traditional systemic theories have disregarded the agency of the individual in affecting political action and engaging in the use of force.

This lack of individual-level analysis has led to limited predictive power, as the political landscape continues to shift away from the state system engagements of the previous centuries. As the landscape moves towards more isolated and peripheral non-state warfare, leaders are becoming more reliant on decision making outside of the traditional time-consuming procedures through which states engage in war (Green and Shapiro 1994). These decisions to use force are based at least in part on the perceptions, beliefs, and risk-aversion tendencies of the individuals that respond to them (Greenstein 2000). Furthermore, non-state actors are separate from the state system, and therefore do not fit into the systemic models that other states rely on in making

decisions and predictions about uses of force. Therefore, the decisions of both states and nonstate actors are becoming less predictable, and must convey at least in part individual-level dispositions to act in certain ways regarding the use of force.

The decisions of non-state actors, by definition, are not the same as those arrived at through the careful analysis of state-level calculations. Therefore, such actors may not conform to the assumptions of the traditionally systemic prediction models and in doing so, may confound the models of rational choice and domestic politics that states have grown to employ in their calculations (Green and Shapiro 1994). This may cause leaders to consider major uses of force in response to the decisions of non-states actors at a high level of cost to the state (Powell 2004). These calculations must differ from the state's traditional decision making processes, and may show the increased relevance of individual-level variations in changing and shaping the political landscape and state-level uses of force.

However, although some work has been conducted in an effort to understand the leadership behaviors and individual-level psychology that influence political uses of force, little research has gone beyond the classification of cognitive belief systems as a means of operationalizing these variations (Hermann 2003, Walker 2010, and Winter 2003). In addition, there has been almost no effort to connect these variations in practice to observations of the frequency with which major uses of force have been carried out by the state. Although there is a growing level of interest in the quantification of belief systems as a means of explaining presidential assessments, especially within stressful decision making situations, few studies seem to connect the literature on beliefs and cognition to recent psychological findings indicating that beliefs are innately emotionally charged, and that assessments are nearly impossible to make

without emotional recollections or judgments (Marcus et al. 2000). Political psychologists have not done enough to help support the claim that such cognitive variations have a clear impact on policy, or to incorporate the emotional components of individuals' dispositions into their models. This work attempts to fill this gap by providing a clear application of these theories in an effort to predict major uses of force, and by quantifying the significance of presidential leader's personality in the state's decision making models.

Specifically, this work investigates whether or not speeches that convey higher levels of expressed aggression and passivity have explanatory power in relation to an administration's decisions to use force. These expressions are measured using DICTION text analysis software, and Howell and Pevehouse's (2005) quarterly assessment of U.S. uses of force between 1945 and 2000 serves as a basis for measuring the dependent variable of interest. These "emotional expressions" and "cognitive expressions" are herein operationalized through the use of DICTION's text analysis database and definition of each corresponding variable (Hart and Carroll 2012). However, the variables also reflect the overall theoretical framework of this work in supplying a means by which to explore the significance of the emotional expressions of leaders as indicators of levels of emotional regulation. Higher levels of emotional regulation in the individual are expected to yield lower scores on the corresponding expression of that emotion, and vice-versa. Although these independent variables are not measurements of individually felt emotion, they do indicate the emotional state of the individual through a measurement of emotional regulation (Roberton, Daffer, and Bucks 2012). Therefore, each emotional expression is a proxy variable for experienced (or felt) emotion as emotional expressions are equated with levels of emotional regulation within the individual (Bradley and

Lang 2000).

This study also provides comparative analyses of presidential expressions across speech contexts, and attempts to ascertain the differences in expressed emotional states across spontaneous and prepared speeches. Speech samples are derived from The American Presidency Project, and consist of a prepared speech subset that includes each State of the Union Address given between 1945 and 2000. Additionally, data samples of spontaneous speeches are included, comprised of all recorded presidential news conferences and candidate debates conducted within the same period of time. The prepared speech sample includes speeches that were either given on the same day as The State of the Union or recorded under substantially similar prepared settings. The prepared speech sample consists of 55 speeches across 10 presidencies. The spontaneous speech sample consists of 1,201 independently coded news conferences and 23 debates. Howell and Pevehouse's (2005) control variables are also included in order to mitigate the effects of wartime, presidency, Congressional support, hegemonic power, unemployment, and similar significant variables within the analysis. Reasons for including each variable are discussed in depth under the independent, dependent, and control variables sub-sections of the explanation of data samples included below.

## THEORY AND LITERATURE REVIEW

#### The Importance of Choice in Decision Making Processes

An increase in the amount of literature investigating the political impact of leaders on the decision making process shows much recent interest in the study of choice within political science and leadership studies (Hermann 2003; Walker 2010; Winter 2003). Particularly, researchers have begun to investigate those choices that influence political outcomes on an aggregate level by affecting the decisions made within systems run by groups or organizations. These processes, and the decision making outcomes that result, are the direct motivators for rational modeling as a means of predicting the aggregate decisions of actors as the impact the system they inhabit, and in turn, consequent decisions. Thus, foreign policy analysts have set out to define the mechanisms behind group level decision making using the model of rational choice (among others) as a means of formalizing observations of decision outcomes. However, the political system is complex, and the study of choice must rely on a more comprehensive analysis of motivators and public action than merely economic or political gains as expounded in rational choice theory (Green and Shapiro 1994). This foundational assumption about group and state motivation, although fruitful in some instances, is merely the first level of analysis that must be considered in order to account for the decisions of preferentially-driven political bodies.

The popularity of rational choice theory has been immense since its adaptation to political science from the economic modeling literature in which its theoretical roots can be found. Within this frame of reference, the rational choice school gives one possible explanation for variations in decision making among states by focusing primarily on decisions made both

consciously and intentionally through reasoning and reflection (Kohlberg 1971). Economists have relied on rational choice models as a means of explaining the linear decision making processes of actors seeking to maximize certain utilities while reducing or eliminating losses altogether. Such decision modeling is simple, but it allows for the foundation of complex linear decision predictions (Lupia, McCubbins, and Popkin 2000). Linear decision making can be modeled much in the same way as economists might model market trends, as players follow growth and rewards while rejecting those decisions that lead to losses and ineffectiveness (Lupia, McCubbins, and Popkin 2000).

Rational choice theory provides a framework for decision making analysis that is still in use today. It effectively enumerates the options within systems based on the assumption that the pursuit of individual interests will yield a matrix of choices, and of those choices, one may hope to predict outcomes based on the rational calculations of states (Binmore, Dasgupta 1987). However, rational choice modeling remains limited in its incorporation of other systematic variances in populations that affect decisions (Green and Shapiro 1994). Additionally, modern rational theory relies on the calculations of informed decision makers as they select actions based on comprehensive information gathering, but this information is not always accurate or effectively collected. The rationality of decision makers can come into question as it becomes ever more obvious that they lack perfect information, and can often display "bounded rationality," a type of limited rationality that is caused by a lack of resources (Binmore, Dasgupta 1987). This limits the optimization of decision in rational choice based models.

Thus, the economic modeling of rational actors often fails to acknowledge the real limitations that decision makers face when confronted with improper information or an inability

to gather information on alternative choices. These constraints are ignored by much of the rational modeling literature, and this has led to the discovery that various other factors may also play a role in the decision making processes of both political groups and individuals as they selectively act within the bounds of their available collection of otherwise perceived-to-be rational choices.

#### The Psychology of Rational Choice

Although rational choice models provide a key foundation from which to examine the economics of choice, certain limitations arise when individual preferences vary. Although an individual may have several equally viable options from which to select, preferences and psychological dispositions may influence his or her decision making processes on a consistent basis. Thus, when faced with two equally viable options, the individual's unique preferences may predispose him or her to elect an option that is no better than its counterparts. Rather, individuals may follow arbitrary preferences based on past experiences as they influence perceptions of risk, heuristics, and other mental models that may or may not be relevant to the decision being made.

Actors with limited knowledge of the context within which decision making must take place are particularly vulnerable to the influence of such personality based preferences. The theory of "bounded rationality" resulting from heightened emotional arousal (Kaufman 1999) helps to explain the application of these preferences in decision making outside of the exchangebased calculations of the rational economics of choice. For instance, psychologists have shown that emotional responses are cued immediately in most morality-based decisions where a subject lacks certainty, preceding rational justifications altogether (Haidt 2001). Thus, political psychologists have begun to explore the emotional aspects of personality, as well as cognition, as

a means of explaining variations of individuals and groups (Hermann 1999; Winter 2003).

Haidt (2001) shows that emotional primacy can often determine the "preferentially driven" assessments of individuals. Turiel, Hildebrandt, and Wainryb (1991) have also found that rational explanations of facts often correlate with judgments, as individuals explain the reasoning behind their emotional inclinations and decisions. These researchers have helped to place individuals' emotions on the spectrum on independent variables considered when analyzing the decision making processes of single actors. Similarly, Mutz (2009) creates compelling argument for analyzing the emotional states as of individuals a means of predicting or evaluating decision making outcomes in aggregated groups, even when the primary psychological drive is thought to be rational thought.

Once the primacy of emotion during decision making processes has been considered, the next question that arises is that of whether or not such effects as found in Haidt (2001, 817) are bound to highly emotional or uncertain situations alone. Emotions-based theorists in this framework often state that it is only post-hoc that rationality plays a role in the process of moral judging. It seems then that although rationality may often play a secondary role in explaining decisions, it does not stand to reason that the only determinant of the outcomes of judgments is emotional. Such claims contradict many findings of psychology's "cognitive revolution" by placing emotion in the limelight at the cost of rationality and cognition.

Kohlberg (1971) thus set up the foundation for a rebuttal of such claims by arguing that rationality is developed over time. According to Kohlberg (1971), young children differ significantly from adults in terms of moral judgments of the same situation. He argues that each stage of brain development leads to an increase in the capacity for moral assessment. This

finding partially fueled the cognitive revolution in psychology, and the legacy of such work cannot be ignored, as it provides a foundation for social morality explanations of judgment and bridges the gap between immediate emotional intuition and rational judgment. However, purely rational models of the cognitive revolution have begun to see a decline as emotions-based findings have pushed the field to encompass a more comprehensive model of the human mind.

#### **Emotions and Cognitive Choices**

Neuroscientists have begun to recognize the deep interconnectedness of the emotional and cognitive states of individuals (Ledoux 2000, Bradley and Lang 2000). However, such work has not easily been translated to foreign policy analysis. For example, Mutz (2009) provides a list of the frameworks connecting emotions literature and foreign policy decision making. Mutz (2009, 2) summarizes positive outcomes of political choices that are highly relevant in political science, naming: "high levels of political information (among the general populous), active political participation, and fair-minded evaluations of political alternatives," as key values that are of interest in his framework. Mutz (2009) then explores the importance of emotions in determining these outcomes through the lens of citizens' choices. This research challenges the limits of rational choice research by exploring emotional aspects of aggregated choices.

This analytical expansion of political psychology in neuroscience's wake seems quite promising. However, little research has been done in foreign policy that follows in these footsteps. Although anxiety, anger, fear, and other key behavior-inducing emotions are of interest to foreign-policy analysts, the content analysis tools employed by personality scholars like Hermann (2003), and cognition scholars like Walker (2010) and Post (2005) do not consider emotions literature within their theoretical frameworks and research tools as directly as Mutz

(2009). Often, emotions are simply sub-categorized as components of belief systems and lost within a web of other variables, making it difficult to establish their primacy in decision making processes.

However, traces of such research initiatives do exist outside of foreign policy analysis. Marcus, Neuman, and MacKuen (2000) provide the foundation for such analysis on the individual level, and even the beginning of a methodology for measuring politicians' responses to emotional behaviors from the general population. Individual-level analysis is also made possible through the implementation of methods derived from the theory of "affective intelligence" that has been well defined in the field of psychology and applied within political contexts by Marcus, Neuman, and MacKuen (2000). In their research, "affect" refers to the emotion an individual experiences towards a political object, and "intelligence" denotes the conscious purpose behind the action or response. These operational definitions help to illustrate the salience of "affective intelligence" in political science.

Research in industrial and organizational psychology has also established frameworks through which to evaluate the effects of emotional intelligence on political leadership and outcomes of decision making processes. George (2000, 1), for instance, plainly states that "the ability to understand and manage moods and emotions in the self and others, contributes to effective leadership in organizations." This thought connects performance and emotional awareness in leadership, and readily opens a new avenue for emotions research that incorporates constituent feedback into decision making models as well.

Rajah, Song, and Arvey (2011) similarly show the societal influence of emotions on cognition, as the emotional processing of experiences takes up mental resources and leaves a

lasting imprint on the mental landscape of the individuals that make up society. In fact, even neurological sciences have begun to highlight the importance of emotions in establishing a motivation for cognitive action (Ledoux 2000). Damasio (1994) early on illustrated this finding using neurological observations, solidifying assertions that decision making is heavily influenced by emotion, and that decision making systems in the brain rely heavily on emotional components.

#### **Emotions, Cognition, and Leadership**

Presidents are state leaders, and psychological methodologies such as leadership trait analysis (LTA) have been used prominently in an effort to evaluate presidential personality traits and decision making styles. However, such methods as LTA have advanced the science of leadership analysis through the lens of psychological research that is almost exclusively cognitively based. Kerr, Garvin, Heaton, and Boyle (2006) find that leadership is an emotional process, and that leadership is composed of mechanisms that control the emotional responses of followers toward decision outcomes. Even emotional experiences are evermore being acknowledged as the product of leaders' actions (Pescosolido 2002). Thus, leadership exchanges are actually heavily influenced by emotions. These researchers contribute to the growing crossdisciplinary argument stating that the inclusion of emotional components in the evaluation of individual-level psychology, and as a marker of overall leader effectiveness in decision making, is critical.

In terms of leadership effectiveness, emotional displays also tend to be an important regulating factor in determining perceived competence and decision making prowess (Rosete and Ciarrochi 2005). In essence, effectiveness is not only an aspect of decision making outcomes,

rather it also depends on the emotional outcomes that constituents and followers experience as a result of the decisions being made. Although emotional outcomes may influence perceptions of effectiveness, leaders seem to have an ability to emotionally frame the situation through emotional displays of confidence and positivity (Newcombe and Ashkanasy 2002). Newcombe and Ashkanasy (2002) also show that positive tones in speeches coupled with positive facial expressions, increase the positive emotional reactions of audiences.

Additionally, Dasborough and Ashkanasy (2002) argue that leaders intentionally display emotions in an attempt to invoke similar emotions in others, effectively setting up emotional reactions within preset emotional frameworks. Humphrey (2002) agrees that such instances of emotional management are a key aspect of leadership style, as decisions are made that must be accepted by the public and that are influenced by positive leader displays. Emotional displays then become a policy tool for managing the reactions of audiences more effectively through emotional framing and mirroring. Such emotional displays by leaders are useful in political situations that result in emotional responses in constituents. This becomes clear in light of the research findings of Erez et. al (2008) showing that leaders' charisma, as displayed through positive emotional displays, can yield happier followers, higher ratings of competence, and result in followers that may be easier to emotionally influence again in the future.

#### **Limitations of Affective Intelligence Theories**

Despite growing support for psychological research regarding affective (or emotional) intelligence in politics, the work of Ladd and Lenz (2004) poses valid criticisms of applying affective intelligence theories within political frameworks. Specifically, it may be that citizens simply show a preference rather than a raw emotional response to a candidate with high affective

intelligence. Ladd and Lenz (2004) expand this critique to encompass the reactions of citizens that are preferentially driven in political engagement, arguing that such emotions can be comparatively derived and may vary only for citizens that feel politically engaged. Otherwise, the emotions may never arise to begin with (Ladd and Lenz 2004). Then, these emotional expressions may be partially limited in their formation, and be mitigated to a population with a certain level of economic prosperity, education, and a general socioeconomic status that does not restrict his or her ability to expend resources on participation in the political process.

However, individualized psychological assessments are still useful in the evaluation of decision making elites that possess the resources needed for high levels of political engagement. For example, affective reasoning can be detected in the conscious and unconscious aspects of decision making regarding what is moral in any given situation, and what basic processes determine these judgments (Haidt 2001). Although decision makers preferentially rank outcomes, public assessments of social morality may also be influenced by expressions of emotions by leaders and elites (Rajah, Song, and Arvey 2011). Therefore, the public still has a level of influence on the emotional tone of decision making outcomes and their subsequent emotional interpretation.

Emotions can therefore be of great importance in the psychological assessment of situations by elites. Furthermore, George (2000) takes this line of reasoning further, arguing that the emotional reactions of the public are historically significant, in that they create a memory that is infused with the emotional outcomes observed by the public, and the emotional reactions that the public experienced directly. Thus, reactions to such emotionally charged memories present the culture with heuristics and other forms of memory-based modeling.

#### Heuristics, Schemas, and the Mental Modeling of Decision Outcomes

Heuristics research connects emotions and cognition in a variety of ways. To begin, the heuristic model of judgment and decision making refers to a situational mental shortcut that directly bypasses analytical assessments in exchange for a more efficient evaluation from memories of similar situations (Houghton 2013). In essence, a heuristic is a way of bypassing rational processes of cognition using active memory (Petty and Cacioppo 1986). Heuristics are also valuable tools that can facilitate quick and effective decision making in many familiar situations that only require a cursory investigation of the particular changes associated with the new occurrence observed (Scherer, Schorr, and Johnstone 2001).

Since memories are emotionally charged, the connection to emotion based processing is fairly direct. George's (2000) framework connecting emotions and culture describes a possible mechanism by which shared emotions influence the heuristics that drive decision making processes. Heuristics play a key role both in reminding the public of the emotional importance of past choices, and in establishing the frame of reference decision makers use when comparing current situations to past experiences (Houghton 2012). These cognitive comparisons are partially emotionally driven, since heuristics are emotionally tagged mental shortcuts for assessing new situations.

Haidt (2001) further opens the floor for heuristics literature in foreign policy decision making. According to Haidt (2001), the term "judgment" conveys the characteristic attribution of "moral" or "immoral" to the given decision and its subsequent outcome. Modern social science literature focuses on the process by which such a distinction is formed in the mind. Specifically, moral judgment literature isolates both the conscious (cognitive) and unconscious (intuitive)

processes that contribute to these assessments. However, the literature shows that these processes are not as linear as they have been depicted to be in the past, but rather, may be partially explained through the application of heuristic thought patterns (Haidt 2001).

Scherer, Schorr, and Johnstone (2001), for example, show that decisions related to heuristics, symbols, and other schematic associations involve a meshing of both analytical and emotional linkages. Namely without the onset of an emotional association, the symbol and heuristic do not form or cannot be remembered. Many decisions based on the memory of past experiences cannot be modeled without an emotional charge, leaving decision makers and the public open to forming heuristic associations. Scherer, Schorr, and Johnstone (2001) also establish a clear case against the traditionally exclusive classification of emotional thinking as purely heuristic, and cognitive processes as purely analytical, since heuristics affect the mental modeling of events both before and after they actually occur.

Schematic thinking, based on the categorization of information, is also non-linear. Schemas begin as emotional triggers, since pieces of information in the brain form relationships most frequently when emotional responses are strong and well established (Scherer, Schorr, and Johnstone 2001). These findings expand scholars' understanding of the effects of emotions on schematic thinking in both populations and leaders. It is likely that many cognitive assessments that are relevant to decision making are at least partially influenced by emotional thinking represented as schematic thinking.

Similarly, Marcus et al. (2000) show that emotional appraisals can influence the key heuristics that often precede analytical processing. Political situations exemplify the interconnectivity of emotions and decision making through heuristic processing. Marcus et al.

(2000) explore the possibility that active memory is used as a means of evaluating symbols, negotiations, and situations through both the activation of emotional and cognitive associations in the brain. Marcus (2002) then builds on this research by creating a clear distinction between the mental connections made through declarative (fact-recall-based) and associative (associations-formation-based) memories of political factors or events. According to Marcus (2002), heuristics about states, bargaining partners, and even partisan identification rely on emotional associations formed and stored within associative memory. This finding parallels the neuroscience works of Petty and Cacioppo (1986) in showing that the mental act of forming and recalling associations is both cognitive and emotional in nature. Thus, the two systems are interrelated, and heavily influence decision making based on heuristics.

#### **Heuristics and Political Interests**

In addition to being both associative and emotional in nature, heuristics appear to serve the function of helping to focus cognitive interests (Marcus 2002). In this sense, an interest is defined by the cognitive pursuit of a goal that is emotionally charged and valuable. Similarly, an interest is based on an appraisal of a desired end or outcome to a given decision. Therefore, emotions are once again inherently important in understanding the types of interests that will be pursued in a political context, either by a leader or a group (Marcus et al. 2000). Whenever decision makers appraise a pursued interest, the typical outcome is a situation in which experiences emotionally influence the evaluation of the situation prior to the onset of cognitive reasoning (Marcus 2002). Thus, pre-conscious emotions direct the focus of cognitive systems, which is one of the key roles appraisals play in setting up policy interests (Marcus 2002). Once an emotional appraisal is solidified, cognitive reasoning naturally directs attention to relevant

political interests that match the appraisal.

As Sears (1980) states, emotional interests create the symbols and situations used to form general political judgments. Political actions would be completely unguided without the focusing power of pre-conscious emotions in forming heuristics to guide appraisals of possible outcomes. Also, heuristics do not seem to be limited to affecting the emotional and cognitive agendas of the individuals. Once a heuristic is employed in making an appraisal that influences the political agenda, it becomes more likely that the agenda will have far-reaching implications as political groups strive to maximize their related interests over time. Conover and Feldman (1986), for example, have found that such emotions as contempt, disgust, and hatred have substantial political implications for a culture, in that they take on a prominent role within the emotionalization of certain decision outcomes that affect the general population. If left unchecked, these emotional effects can have a devastating impact on the decisions of states as they seek to placate their citizens.

#### **Presidential Judgments and Belief Modeling**

The study of presidential decisions has adapted as political science begins to adopt psychological methodologies for personality assessment. Many scholars have long argued that particular traits in leaders affect the future of a state as a whole (Hermann 2003; Neustadt 1960; Walker 2010; Winter 2003). Now, Greenstein's (2000) key work on presidential utility provides characteristics of those situations wherein presidential personality becomes "dispensable" or "indispensable" to attaining one outcome over another under similar structural conditions. Given this general premise, a scholar of presidential psychology is left with a subset of situations in which personality differences are instrumentally significant.

Hermann (2003) and Winter (2003), for instance, propose that psychological determinants of decision making predispositions are manifest themselves as cognitive expressions and and beliefs that can be linguistically measured. In this vein, research in political psychology has shifted to context-driven quantitative psychological measurements (Walker 2010). Content analysis has begun to yield significant psychological assessments of individuals across time and against similar norming standards for their peer groups.

However, these techniques little consider the emotional displays of individuals explored in the research investigated in the sections above. Emotional expressions are rarely studied in content analysis, despite evidence from such authors as Conover and Feldman (1986), Sears (1980), Marcus et al. (2000) and Marcus (2002) that have explicitly stated that the connection between emotional assessment and decision making is undeniable. Furthermore, neuroscience supports this belief by lending credence to the fact that emotions and emotional communication are deeply intertwined with general assessments and cognitive functions (Damasio 1994). However, few authors are working to establish the importance of measuring emotional displays in modeling leaders' psychological states and traits, and subsequent decision making styles.

For example, although the operational code work of Leites (1951) has evolved significantly since its inception, it continues to be an almost exclusively cognitive means of assessing leaders. Notably, Schafer and Walker (2006) have expanded the work of Leites (1953) by observing the speech of individual leaders and incorporating computer coding methodologies in their assessments. Similar to the comprehensive leadership trait analysis of Hermann (2003), operational code has become a tool for measuring cognitive beliefs against norming pools derived from large populations of the speaker's peers. Specifically, cognition is modeled in

relation to the beliefs that individuals express verbally regarding how the world operates, how the leader should operate in it, and what the leader expresses in comparison to other leaders in similar situations (Walker 2010).

However, such assessments measure the effects of emotions only insofar as they can be indirectly incorporated into cognitive beliefs. These psychological displays do not represent the emotional state of the individual, and effectively leave out a primary force in the establishment of cognitive assessments relevant to decision making. The emotional aspects of belief systems theorized to be accounted for in operational coding methodologies (based on verb-tone) may be no more than a partial assessment of a case-specific reaction to objects or events, specifically due to how the data are gathered and cognitively interpreted. Additionally, since the methodology incorporates only general beliefs based on cognition, it may exclude the emotional displays that leaders employ in an effort to influence followers or create emotional framing. In essence, these measurements take emotions into account only as an aspect of belief systems, and are not in any way reflections of expressed traits such as aggression or passivity, or of expressions that are employed in an effort to sway public opinion.

Another beliefs-based model for the analysis of presidential judgment comes in the form of image theory. Much like other personality theorists, image theorists assess the beliefs of states or even presidents in order to understand the cognitive judgments that lead to their political assessments. The major assessments of importance in image theory come from Cottam (1994), whose research is based on a state's perceived power and level of cultural similarity with other states. These assessments are mainly encompassed in the cognitive framework of judgments and perceptions (Cottam 1994). Image theory holds that separate assessment categories of political

interest such as: "dependent," "enemy," or "neutral," are each cognitively mutually exclusive (Cottam 1994). However, these models do not attempt to measure emotional displays. Image theory is predictive, but its predictions are founded on the cognitive assessments listed, and therefore cannot include heuristic modeling theories or emotional motivators for these assessments.

The at-a-distance analysis of leadership, cognitive beliefs, and images is nearly impossible without the assumption that emotionally charged interests have been selected (Marcus 2002). Additionally, the interconnectedness of emotional and analytical reasoning as argued for in Scherer, Schorr, and Johnstone (2001) must be considered separately from belief modeling. For these reasons, assessments measurement as expounded in image theory and operational code are not comprehensive systems for the psychological measurement of political judgments. In addition, schematic thought modeling shows that emotions are foundational in the establishment of beliefs based on heuristics and memory (Marcus 2002). In practice, cognitive and emotions-based frameworks should be implemented in conjunction in order to consider the aspects of emotional framing inherent in the decision making process.

#### **Presidential Trait Modeling and its Limitations**

Another development in the psychological evaluation of leadership is Leadership Trait Analysis (LTA), a system of at a distance assessment derived from the work of Hermann (2003). Computerized speech analysis schemes employed for this research usually consist of keyword dictionaries of political or other significant keywords that are thought to convey expressed static leadership characteristics (Hermann 2003). LTA compares these keywords in order to quantify: "Need for Power," "Conceptual Complexity," "Self-Confidence," "Distrust of Others," "Belief

Can Control Events," "Task Focus," and "In-Group Bias" (Hermann 2003). LTA researchers considered these measurements important to both the decision making model and to understanding the personalities of leaders.

LTA represents psychology and personality as a collection of subconscious desires, beliefs, and characteristics that are compounded into displayed psychological traits (Hermann 2003). Again, it is obvious that such methods do incorporate emotion on some level. However, the effects of the emotional expressions of individuals are poorly addressed by the assumption that emotions can be lumped together with generalized personality and belief assessments. This approach does not isolate emotional variables, and any subsequent interpretations of emotional primacy become meaningless.

Much like operational code, LTA seeks to understand a leader's personality traits though an evaluation of certain cognitive belief systems (Walker 2010). Both of these methods capture a key aspect of expressed psychology, but neither collects much data on emotions in practice. Although LTA and operational code provide an excellent means of observing differences in cognitive traits, they are not the tool that as is needed for the establishment of methodologies that account for the culture-driven emotional framing components of the decision making process. This is the current challenge for content analysis researchers, and this work begins to consider the problem from the point of view of emotional regulation.

## **THEORETICAL FRAMEWORKS**

#### **Emotional Regulation and Decision Making**

According to Roberton, Daffern, and Bucks' (2012) research on aggressive behavior, certain emotions, if left unregulated within an individual, may lead him or her to turn to aggressive behavior as a means of alleviating the emotion. Although the connection between individual emotional regulation and aggression is well documented in clinical psychology, Gardner and Moore (2008) take the research a step further by logically connecting feeling of danger, anger, and vulnerability to acts of aggression in non-clinical populations. These two findings help to inform the theoretical basis of this study by connecting emotional regulation to individual decision making regarding the use of force.

If the use of force is considered an aggressive action (whether justified or not) taken by an individual state against another entity, then it is directly subject to the expression and regulation of emotions by leaders and decision makers (Roberton, Daffern, and Bucks 2012). Gardner and Moore (2008) argue that aggression is a means of diffusing certain emotions, and thus, alleviating the sense of helplessness and associated vulnerability induced by these emotions. It therefore stands to reason that the emotions and cognitive states of a president during the decision making process may lead to major uses of force and aggressive actions across time. This is especially significant when failure to regulate emotions becomes apparent in public speeches, as it would likely reflect poor overall emotional regulation or static aggressive personality tendencies (Roberton, Daffer, and Bucks 2012). Therefore, the expressed characteristics and emotions selected for observation have been identified as having an

underlying connection to anger, vulnerability, joy, or other emotions salient to aggression (Gardner and Moore 2008).

Specifically, the emotions at work in the individual are likely to be based on the core emotional states of anger, fear, disgust, contempt, joy, sadness, and surprise, with anger and joy being the most relevant in this framework. These emotional states are first experienced as physical sensations before they are communicated in any physical or verbal way (Bradley and Lang 2000). Subsequently, the emotion is either made conscious, or remains unconscious and is not cognitively expressed. For these reasons, the emotional measurements employed in this work are inspired by the theoretical conclusion that emotional regulation is a means of measuring only a secondary effect of felt emotion, and that emotional states are not directly presented to others either consciously or unconsciously as they are primarily physical phenomenon (Bradley and Lang 2000). The speech analysis conducted herein is capable of measuring the communications that arise from unconsciously or consciously expressed emotions in the form of verbal cues and tones that are emotionally charged, however, these derivative expressions are not felt emotions. This is why it is important to note that the expression of emotional state measured by content analysis exists separate from the physical manifestation of emotion, and is not a direct indicator of emotion.

In essence, the emotional expressions of individuals are a manifestation of the emotion directed toward a subsequent action that may be taken in order to alleviate the emotion or express it more fully (Roberton, Daffer, and Bucks 2012). For example, acting out in aggression may alleviate felt anger and contempt, while praising an individual helps to express felt joy and surprise (Roberton, Daffer, and Bucks 2012). The expression is an indicator of a future action

meant for emotional regulation of the trigger emotion. Therefore, emotional expressions are at best second order representations of emotional states, as they are affected by conscious efforts to express or regulate physically manifested emotions. The expressed emotion may be alleviated consciously if the individual is aware of the physical manifestation of the emotion and is ready to psychologically cope by taking a corresponding action that is consciously aimed at emotional regulation (Roberton, Daffer, and Bucks 2012). In this case, verbal expressions in speeches may be heightened or lowered based on the psychological dispositions of the individual. Some presidents may be more comfortable with higher levels of emotional expressiveness in general, or the expression of character traits that coincide with the emotions being expressed. These differences can be measured in the framework as pronounced tendencies toward increased levels of expression across some traits but not others.

Additionally, the theoretical implication of relying mostly on trait based measurements can also be explored in the context of emotional regulation. The emotional state of the individual is the precursor to the emotional expression that results, and therefore emotional expressions are state-level measurement. However, aggregated state-based snapshots, if taken over a sufficient amount of time, can begin to indicate trait-level dispositions to experience certain states more often, across contexts, or generally at a higher emotional level (Bradley and Lang 2000). Therefore, although individual observations of emotional expression in a given speech are measurements of psychological states, a series of traits are conveyed through the patterns of frequency that arise across multiple observation and speeches. Trait indicators may either indicate that the trait is a disposition toward a certain level of expression of one of the emotional variables observed, or a disposition to expressiveness in general in a certain speech context.

Overall, the president's score will be an aggregate trait measurement that derives from multiple state-based observations. This framework holds the advantage that the traits and states of individual presidents can both be observed within the context of the speech samples taken.

#### **Emotions, Verbal Expressions, and Consequent Uses of Force**

Aggression is precipitated by anger, and is a proxy variable for the emotional state. However, expressed aggression can be used as a means of dissipating felt insecurity and vulnerability as well (Gardner and Moore 2008). These three emotional components come together to reduce emotional regulation, and are expressed by the individual only when the emotions are high enough to affect language and aggressive behavior (Roberton, Daffer, and Bucks 2012). Conversely, passivity is not precipitated by anger, and does not require a similar emotional discharge in order to maintain emotional regulation.

Similarly, blame is also precipitated by anger and vulnerability, and can be an expression of bias against the out-group (Roberton, Daffer, and Bucks 2012). These emotions are the catalyst of aggression and major uses of force; however, there is also a narcissistic aspect to blame that cannot be ignored, in that the evaluation of the self must be held in high regard at the cost of others. This results in individuals engaging in blaming in order to alleviate low selfconcept, or to maintain self-esteem regardless of their actions or responses. Blame is therefore employed as a means of coping and maintaining positive self-regard. However, this is not a positive coping strategy that reflects high levels of emotional regulation, and therefore, it may result in higher uses of force in order to alleviate the anger and vulnerability (Roberton, Daffer, and Bucks 2012).

Finally, praise is reflective of the emotion of joy, and indicates higher levels of empathy

which corresponds with greater emotional regulation. The presence of joy and empathy mean that individual is far less likely to require an emotional outlet in the form of aggressive behavior (Roberton, Daffer, and Bucks 2012). Additionally, joy is an indicator of higher self-regard. This means that the expression of praise is likely to have an inverse relationship to that of blame, and will correspond with the findings of higher emotional regulation.

These connections illustrate the emotions-based hypotheses that are presented in the sections that follow. However, the three cognitive variables of interest in this work do not represent emotional proxies, as they have been studied in depth in other contexts as mentioned earlier (Walker 2010, Winter 2003, Hermann 2003).

#### **Post-Hoc Influences of Emotions on Future Decision Making**

Although emotions play a key role before the decision to engage in the use of force, there is also strong evidence suggesting that decisions are justified post-hoc through emotionally influenced rational justification (Haidt 2001). Such emotionally driven justifications serve the purpose of reframing the final decision outcome as it is processed by the self and other individuals, therefore influencing decision making outcomes before and after actions are taken (Haidt 2001). This finding is important to understanding the effects of emotional framing on future decisions taken by the state or leader.

Once an emotionally driven justification for a decision is accepted, it may lead to the formation of heuristics that influence leaders in similar decision contexts in the future (Houghton 2013). Therefore, the decision makers are often influenced by emotional framing and emotional justifications before the event or action is taken. This finding is an important component of the theoretical framework as it helps to explain why the texts and speeches analyzed herein must be
considered in aggregate in an effort to discern overall personality traits as they manifest over time.

Additionally, the leader-member exchange research of Dasborough and Ashkanasy (2002) and Erez et. al (2008) helps to illustrate how leader and citizen perceptions of decision outcomes are effected by mirroring and framing effects both before and after an event occurs. Although leaders may be faced with an undesirable or negative outcome, they can present positive emotions to others that signal acceptance or joy despite a negative outcome. Charismatic presentations of events and the positive components of decision outcomes have been shown to significantly influence followers' perceptions of both charismatic leaders and the events themselves (Erez et. al 2008).

Such perceptual shifts often occur as a result of charismatic leadership, and may give charismatic presidents a means by which to influence the emotional associations that come up during future instances of decision making as well (Erez et. al 2008). This phenomenon is likely at work in those presidents that show overall dispositions toward high levels of optimism across contexts. In each context, it stands to reason that the more pronounced the trait is the more likely it is that that president is engaging in post-hoc emotional framing. The comparative analysis section evaluates presidential speech in each of these cases, and shows the highest scoring presidents for optimism whose trait scores may be informed by this theoretical implication, as well as those other discussed.

### **Emotional Bottlers and Emotion Framers**

Despite many methodological gains in neuroscience, directly observing emotional and cognitive states is difficult due to the private nature of emotional experience (Bradley and Lang

2000). Speech is a surface level indicator of emotion and the patterns of linguistics are both complex and governed in part by social and contextual norms (Bradley and Lang 2000). However, there are many decisions that speakers can make in terms of word choice, speech composition, and delivery that provide a secondary level representation of their emotional states (Bradley and Lang 2000). This means of emotional analysis allows an observer to draw conclusions about the speaker's state directly from the implications of the words and phrases used within the context of the speech (Bradley and Lang 2000).

However, there exists a possibility that a speaker's emotions may go unregulated and yet fail to manifest linguistically. Whenever a speaker decides to consciously "bottle up" legitimately felt emotions there is likely a level of emotional regulation being employed before they manifest as verbal expressions (Roberton, Daffer, and Bucks 2012). These verbal bottles present a challenge to the direct measurement of felt emotion. However, the proxy variables employed in this study capture the expression of emotion directly as a means of observing levels of emotional regulation over time and across speech contexts of varying spontaneity and pressure for the speaker. In essence, this methodology quantifies the cognitive and emotional tone of several speech samples in order to provide estimated tendencies to regulate emotions before they are expressed to the public either intentionally or due to a lack of regulation (Bradley and Lang 2000). Therefore, presidents that bottle up such emotions are merely scored as having lower levels of expressed emotion, and consequently, a higher level of emotional regulation.

In addition, by considering expressed emotion, this framework acknowledges intentionally constructed emotional expressions that are used by emotions framers to influence audiences and followers (Dasborough and Ashkanasy 2002). Since all expressed emotions

communicated in language are considered, whether genuinely felt or not, the emotions that are expressed by an individual who is merely acting to frame an event or outcome still point the data toward genuinely expressed emotions (Erez et. al 2008). The expression may not be indicative of the individual's actual emotional state; the shared emotion may be of value in understanding the post-hoc influences on decision outcomes as discussed above. Therefore, falsified emotional expressions are still considered of importance to the theoretical framework.

## **HYPOTHESES**

### **Hypotheses of Emotional Expressions**

The emotions-based variables of interest in this study are: expressed aggression, expressed passivity, expressed blame, and expressed praise. Each of these variables is operationalized using pre-defined word dictionaries composed by psychologists, and identified as showing either high or low levels of emotional regulation as associated with each variables of interest (Hart and Carroll 2012). Gardner and Moore's (2008) research on emotional regulation shows that expressed aggression will often translate into aggressive actions. Gardner and Moore (2008) argue that unless aggressive tendencies are regulated, they will translate into an action aimed at regulating and dissipating the emotion. However, aggressive emotions conveyed in public speech are already far down the path of expression, and are unlike to be regulated in time to prevent an aggressive action should they be genuinely felt. Thus, higher levels of expressed aggression in speech are likely to foreshadow an increase in aggressive behaviors in an effort to alleviate the emotion.

Conversely, expressed passivity is unlikely to be compatible with the feelings of anger, danger, and vulnerability that are antecedents to aggressive action (Gardner and Moore 2008). Expressed passivity, thus, is likely to coincide with reduced instances of the use of force and greater emotional regulation:

H-1: Higher aggregate levels of expressed aggression will lead to higher amounts of force being used in the following time set.

H-2: Higher aggregate levels of expressed passivity will lead to lower amounts of force being used in the following time set.

Expressed blame is defensive and displays feeling of anger or resentment towards others. These emotions are more likely to bring forth aggressive action as well (Roberton, Daffer, and Bucks 2012). General indicators of blame communicate negative emotional assessments of others, and are not conducive to emotional regulation. Thus, expressed blame may indicate a need for emotional retaliation, and would predict greater uses of force.

Unlike expressed blame, expressed praise is an indicator of higher emotional regulation, and is less likely to require an emotional outlet in the form of aggressive behavior (Roberton, Daffer, and Bucks 2012). The required antecedents to aggression are not expressed through praise, and do not meet the criteria Gardner and Moore (2008) or Roberton, Daffer and Bucks (2012) innumerate. Instead, praise is likely to indicate positive emotional assessments, and thus predict fewer uses of force:

H-3: Higher aggregate levels of expressed blame will lead to higher amounts of force being used in the following time set.

H-4: Higher aggregate levels of expressed praise will lead to lower amounts of force being used in the following time set.

### **Hypotheses of Cognitive Expressions**

The cognition-based variables of interest in this study are: expressed certainty, expressed realism, and expressed optimism. Much work has been done in political psychology to quantify

cognitive beliefs and traits. As discussed, a compilation of such efforts by Hermann (2003), Walker (2010), Greenstein (2004), Schafer and Walker (2006), and Winter (2003) has advanced the use of content analysis. The hypotheses explored below build upon many of the same theoretical underpinning of these works, expanding on them by identifying the linguistic expressions of each variable as a means of analyzing the personality traits that are expressed in many speeches over time, as they may be employed in an effort to influence the formation of cultural-level heuristics regarding decisions made on a cognitive level.

In this work, expression of certainty is theoretically operationalized as "language indicating resoluteness, inflexibility, and completeness," (Hart and Carroll 2012, 1). This definition closely resembles the way in which certainty is understood in political psychology, especially when related to the work of Walker (2010) and Hermann's (2003). However, observing the expression of certainty is more primary than attempting to observe personality traits. Specifically, a speaker can deal in absolutes within a context, but it is only when that tendency is projected across many contexts that a trait such as a high level of belief in one's ability to control events can take root. Thus, certainty may lead to many of the characteristics Hermann (2003) and Winter (2003) associate with aggression, power, or higher amounts of the use of force. This is the basis for the first cognitive hypothesis:

H-5: Higher aggregate levels of expressed certainty will lead to higher amounts of force being used in the following time set.

Expressions of realism are also essential in the understanding of expressed character traits

and beliefs. Realism is herein theoretically operationalized as "Language describing tangible, immediate, recognizable matters that affect people's everyday lives" (Hart and Carroll 2012, 1). This is not associated with the realist school of thought, but rather may be seen as a measure of pragmatism. Expressed realism, in this context, comprises the communication of cognitive assessments based on evidence, numerical terms, and factual assertions. Also, unlike expressed certainty, expressed realism encompasses the complexity level of linguistic statements, similar to Walker's (2010) operationalization of conceptual complexity. Therefore, since high levels of conceptual complexity seemingly indicate that a speaker has considered the costs and repercussions of the use of force, it is reasoned that higher expressions of realism will coincide with a lower amount of uses of force in the given context:

H-6: Higher aggregate levels of expressed realism will lead to lower amounts of force being used in the following time set.

Researchers such as Fearon (1995) and Powell (2004) have found that optimism in bargaining situations can often lead to miscalculations during bargaining situations, eventually increasing the number of uses of force. Similarly, political psychologists have found that such phenomenon as an "illusion of invulnerability" in groups suffering from groupthink may describe an overly optimistic assessment of one's ability to make decisions or succeed (Janis 1983). For these reasons, it is logical to assume that overly optimistic decision makers will also suffer from an inability to realistically assess the costs of war. Thus, increases in expressed optimism are likely to be antecedents to the cognitive miscalculations that result in increased uses of force over time:

H-7: Higher aggregate levels of expressed optimism will lead to higher amounts of force being used in the following time set.

Thus far, the hypotheses of interest have been established using only a theoretically defined framework. The following section identifies the operationalization of these concepts and the relevant tools and data used in collecting each measurement of the dependent, independent, and control variables employed in this thesis.

# DATA

#### **Dependent Variable Data: Major Uses of Force**

Howell and Pevehouse's (2005) quarterly assessment of U.S. uses of force serve as the dependent variable of interest in this work. These data provide an index of major uses of force each quarter from 1945 to 2000. The data are gathered through a five point assessment of uses of force, with (1-3) being categorizes as major uses of force involving severe or moderate military action with the highest ranks including "deployment of nuclear capabilities or the mobilization of multiple aircraft carrier task groups, battalions, or combat wings" (Howell and Pevehouse 2005, 217). The five point scale is consistent with Fordham's (1998) use of force scale and has been adapted and expanded by Howell and Pevehouse (2005) to form the dataset.

Although many variables can be considered when attempting to predict a use of force, such as the international climate, national interests, and domestic politics, the president often has the ability to act against certain targets with aggression and without fear of political retaliation in the immediate context. Thus, growing pressure to respond in the immediacy of the moment may have an influence of the president's ability to consider many otherwise salient factors that would temper an emotional or personally biased response to a militaristic situation. These types of uses of force may no longer reflect the drawn-out and cognitively dominated decision making processes of state-to-state engagement. Instead, the uses of force seen now are increasingly timesensitive and may be better understood as reflections of presidential predispositions to act or accept risk. This framework extends the conclusions of such authors as Hermann (2003), Winter (2003), Walker (2010) in explaining the influence of risk tolerance on judgments and the

decision making process.

Additionally, understanding the decision to engage in major uses of force by measuring variations in the expressed aggression of presidential communications, and observing the differences in presidential speech communications also serves a second purpose. Allowing researchers to evaluate the communicated beliefs and emotions of presidents prior to engaging in the observed use of force may reveal the intent to use force well in advance to the public through the establishment of "lines in the sand" and similar boundaries. The value of understanding the predictive power of these communications in practice is immense, as other states and non-state entities are often the intended audience of these threats of force, and they may not be responsive to threats of force if an observable use of force is not carried out when such a "line in the sand" is crossed. Similar behavior is possible if a pre-established political boundary is broken. Thus, if the number of uses of force observed are not in some way associated with perceived levels of aggression or passivity in public speech, this may lead to a lack of credibility in the boundaries set by the administration.

### **Independent Variables Data: Spontaneous and Prepared Speech Contexts**

This study employs two major categories of speech data, namely, prepared and spontaneous speech samples in measuring expressed aggression, passivity, blame, praise, certainty, realism, and optimism (Hart and Carroll 2012). The prepared speech context is defined by speeches screened by persons other than the speech deliverer, and given without interjections from other speakers. The prepared speech sample employed herein is composed of each State of the Union Address (and some similarly prepared and delivered speeches to Congress) given by the president between 1945 and 2000. This sample allows for the opportunity to observe

expressed emotions through content analysis in a context that is heavily influenced by policy makers, speech writers, and other advisers to the president. The advantage being that such circumstances may better reflect the multifaceted inputs the president would also consider leading up to a major use of force. These speeches were gathered directly from The American Presidency Project, an organization that preserves these public communications in electronic form.

The second type of sample collected in this research is composed of spontaneous speech. Spontaneous speeches are those that are not delivered directly from a script, but rather that are produced by way of interaction with another individual. These samples are collected from two main categories of presidential speeches: presidential candidate debates between 1945 and 2000, and all presidential news conferences in the same time period also provided by The American Presidency Project. This sample constitutes a small collection of recorded debates due to a lack of regularity in the intervals at which presidential candidates accepted offers to participate in debates. However, the sample complements a larger sample of over 1,201 recorded presidential news conferences that are employed in this work.

The news conferences and debates have been digitally recorded as transcripts, allowing for the use of digital text removal software to automatically isolate the president's speech, as he is the only speaker of interest in each of the discussions. The sample also reflects a steady series of incremental shifts in the frequency at which presidents have held news conferences between 1945 and 2000. The sample is used to extract raw content analysis scores for each individual speech given using DICTION 6.0 (Hart and Carroll 2012). In addition, averaged scores are also computed across presidencies, providing a better representation of each president's unique tone

and communicated psychological traits within the context of the spontaneous speech produced during the conferences.

The spontaneous speech sample provides a wealth of data on responses given and produced in a context of improvisation and stress on the part of the president. Presidential candidates are also independently measured when multiple candidates eventually take presidential office, such as in the four Kennedy-Nixon debates. These situations may reflect the president's individual beliefs and psychological traits more clearly than prepared samples, because the sample is not influenced by speech writers and advisers. Instead, the sample is prepared by the president in response to a unique challenge from another debater or attendee, and does not constitute a prepared and collaboratively formed message. Although the president may have been advised prior to the creation of his responses, each sample is produced with a higher level of autonomy than in prepared speeches. Spontaneous speech analysis allows for an interesting set of comparisons across presidencies and within them, particularly as the presentation of facts may differ in tone from what is communicated in prepared contexts.

### **Control Variables Data: Use of Force Controls**

The control variables employed in this study are directly derived from Howell and Pevehouse's (2005) quarterly data from 1945 and 2000. However, many data points have been averaged or compounded in order to match the range of the speech and use of force data presented. Additionally, the control variables are recorded within the same time frame as the dependent variable, and provide a continuous assessment of level of Congressional support for the president, presidential approval ratings, and level of unemployment that are useful to understanding domestic political shifts.

Dichotomous variables are used to indicate wartime, the Cold War period, presidential election years, U.S. hegemonic power, presidency, and the president's political party (Howell and Pevehouse 2005). All of these controls serve the purpose of helping to account for the political, social, international, and domestic pressures that are usually assumed to be salient factors to consider when deciding to engage in a major use of force (Powell 2004).

Congressional support for the president is a key control variable of interest because it provides a measure of legitimacy in the eyes of the public, especially regarding the president's right to engage in major uses of force. As argued earlier, these factors, however, may not have as significant an impact on decision making processes during wartime and during those crises situations wherein the president is forced to take action despite a lack of feedback from the public, Congress, or advisers. Furthermore, as the president addresses the members of Congress each year in the State of the Union, it is possible that the expressed emotions in his speeches are particularly meant to frame Congress' emotional responses and guide the heuristic associations formed about each political outcome or decision presented in the speech. Thus, the speech content may not be reflective of the president's actual felt emotion at the time, but the emotions expressed are of significance in understanding the administration's future policy intentions.

On the other hand, presidential approval ratings, unemployment rates, the president's reelection bid, and the president's party are all mitigating variables that must be considered given the influence of domestic politics on presidential decisions in a democracy (Howell and Pevehouse 2005). Specifically, presidential approval ratings and reelection speak directly to concerns of legitimacy in the public, and represent the potential power the electorate has to punish actions that are taken by the president and thereafter deemed unjustified. These variables

also account for the possible alternative explanation of diversionary uses of force. However, the presidents' assessment of public opinion may only be partially accurate during wartime and in situations that demand immediate action in response to perceived threats.

Controlling for wartime presidencies through Cold War and wartime indicators serves the additional purpose of helping to compare presidential tendencies towards force or passivity accurately, despite expected increases of major uses of force during wartime. Finally, controlling for hegemonic power also helps to account for the international climate while gauging the president's ability to act unilaterally in the international community. It may additionally capture the sense of responsibility the U.S. may feel toward other states, specifically in that high levels of hegemonic power facilitate engaging in humanitarian aid and peacekeeping activities internationally.

# **METHODOLOGY**

### **Prepared and Spontaneous Speech Content Analysis**

This study employs DICTION 6.0 content analysis software as a means of quantifying variations in the expressed emotions of presidents across each of the individual speeches collected within the two contexts of interest (Hart and Carroll 2012). The software is founded on linguistic theory directed at the study of politics and public communications, and has been employed in such works as Bligh, Kohles, and Meindl (2004), Ballotti and Kaid (2000), Bligh, Merolla, Schroedel, and Gonzalez (2013), Crew and Lewis (2011), and Schroedel et al. (2013) among others within political science, psychology, and in other disciplines. DICTION is primarily calibrated for political research, and is a tool of interest for those who seek to understand the cognitive and emotional variations in speeches given by public figures and political actors. For instance, Bligh, Kohles, and Meindl (2004) employed DICTION in identifying changes in President Bush's communications before and after the events of 9-11, and showed that the event significantly affected his subsequent verbal expressions and general psychological dispositions.

DICTION provides measurements of each of the independent variables employed in this study by identifying positively and negatively charged keywords pulled from a database consisting of an over 10,000 word dictionary (Hart and Carroll 2012). This method assumes that the more positive or attractive the emotional valence of a keyword, the more positive the emotion associated with the word. Similarly, negatively charged and repellant associations yield more aggressive words, and reflect the other end of the emotional continuum as expressed verbally

through a lack of psychological self-regulation. Additionally, keyword scores can also be compared to similar scores from other leaders as derived from norming means collected from the analysis of political speeches given over similar spans of time. In this way DICTION quantifies the variations in expressed emotions in one speech against the norming pool of individual speeches, as well as isolating trends in individuals' expressions across speeches over long spans of time.

### **Comparative Analysis of Presidential Speeches**

The speech data analyzed herein are composed of all presidential news conferences, debates, and State of the Union Addresses recorded between 1945 and 2000, forming a sample taken across ten presidencies, from President Truman to President Clinton's administrations. Independent variable scores have been aggregated by presidency in the following section in order to allow for cross-presidential analysis, both between individual presidencies and against the prepared speech samples for each president.

Cross-sectional analysis provides two key benefits: first, it encompasses the characteristics trends displayed by each president across thousands of word samples in spontaneous and formal contexts, and enlightens the key differences between presidencies over a period in office. This analysis helps to isolate those traits in which the president is likely to remain an outlier over time, and provides an opportunity for macro-level personality comparisons, regardless of current political preoccupations or circumstances that may alter moods and emotions from speech to speech.

Such a large sample, therefore, modifies the scope of the analysis toward the static personalities or traits of each leader, rather than focusing on the states that each individual acts out of in response to stimuli. Personality traits may manifest themselves as a heightened tendency to rely on passivity and diplomacy rather than aggressive behaviors and blaming in speech context. Consequently, such a trait could even predispose a president to discuss a compromise peacefully and communicate positively when addressing an audience on the matter. However, another personality trait might manifest itself in speech as a palpable deconstruction of trust, leading to expressed blame, denial, aggression, and spoken reassurances of power and military superiority. These two predispositions would not be detected in one speech, but rather necessitate an aggregate analysis. In this way, one can both discern possible patterns and establish their significance through comparisons to presidential means across similar speech contexts. This analysis is conducted in the aggregate presidential analysis section of this work, and serves as a comparative baseline for each expressed trait.

A second advantage of aggregate presidential analysis comes from the diversity of the speech contexts collected in this work. Presidential debates, news conferences, and State of the Union Addresses all provide different pressures for the speaker that must produce the demanded responses. In the case of State of the Union speeches such pressure likely drops, as the speech is written in conjunction with advisers and other members of the administration who help control the language and messages conveyed in the speech before the speech is interpreted by an audience. However, the State of the Union Address is meant to inform Congress and citizens as to the administration's political decision making plan regarding certain issues. Therefore, the

audience of the speech may understandably assume that the general tone of the speech reflects the emotional stance the president will take in subsequent policy implementations as well.

The challenge to this conclusion is then highlighted in attempting to explain the variation that is recorded in the general tone of such a prepared message once it is aggregated and compared to the spontaneous responses given by the same president in debates and news conferences. The president may then be seen to convey emotional expressions of aggression and passivity simultaneously in different speech contexts. Similarly, the president's tone may shift from one cognitive predisposition to another in short periods of time and across contexts. Although such an effect is to be expected, as the political situation changes from one moment to the next, any systematic changes across presidencies of this type would likely reveal differences in the way presidents communicate under certain speech contexts, as well as the shifting political landscape. Examining these long-term patterns allows for the comparison of expressed traits while controlling for some of the effects of shifting politics and national interest on expressions in communication.

Comparisons across contexts also serve researchers exploring the efficacy of each context as a means of predicting the administration's decisions. Specifically, the communications provided across contexts represent actual policy decisions and agendas that can now be observed in retrospect. Therefore, actual decisions can be compared against the expressed passivity, aggression, blame, and praise conveyed in each debate, news conference, or prepared address that the administration explicitly mentioned in speeches. Although this is an interesting comparative advantage of context isolation, it is beyond the scope of this analysis, as the particular decisions of each administration are not necessarily salient in comparative personality

measurement and observations of uses of force. However, the theory behind the use of force analysis conducted herein also relies on varied speech contexts for sampling, and allows for the observation of each result set separated into contexts over long periods of time and across administrations as they decide whether or not to engage in major uses of force.

# **COMPARATIVE RESULTS**

#### **Summary of Comparative Results**

Overall, the prepared context (State of the Union Addresses) yielded the highest average scores of all expressed traits with the exception of expressed optimism which was evenly expressed across spontaneous contexts as well. This in an interesting finding, as it seems to indicate that prepared speeches, although they are influenced by other party members and members of the president's administration, tend to exaggerate emotional and cognitive expressiveness as compared to the president's baseline results from spontaneous speech composition. This may be an indicator that framing is increased by collaborators either consciously or as a part of the speech writing process. This is also an indicator that the acceptable tone of the State of the Union Address may be more emotional than would be accepted by the public in a presidential candidate debate or presidential news conference.

Additionally, there were many presidents that showed consistent expressed traits across spontaneous and prepared speech contexts and over long periods of time. Specifically, President Truman displayed high expressed certainty across both prepared and spontaneous contexts. President Kennedy appeared among the lowest scores of expressed certainty across spontaneous contexts. President Kennedy also expressed the second lowest optimism scores in both presidential debates and State of the Union Addresses. President Nixon displayed the lowest and second lowest expressed aggression in two contexts. President Nixon also showed the highest blame score in presidential news conferences and debates, but the lowest among State of the Union Addresses. President Nixon also displayed high expressed certainty across both prepared and spontaneous contexts. President Ford had one of the highest praise scores in both spontaneous speech samples. President Bush was among the lowest scores of expressed certainty across both spontaneous contexts, but had the highest praise scores across the presidential spontaneous speech samples. Finally, President Clinton held the highest scores for expressed aggression across two contexts while ranking among the two top scoring presidents across each of the three contexts on expressed optimism.

These findings help to illustrate the distinct personality traits of each president while also showing that some presidents display emotions and cognitive dispositions more often overall. Notably, Presidents Eisenhower, Johnson, Carter, and Reagan did not display personality trends, or static traits through either emotional or cognitive expressions. These presidents may have been more reserved or may have engaged in higher amounts of self-regulation in order to control their needs to verbally express themselves. However, the expressed traits that are displayed herein support the theory that some presidents do engage in emotional expressions as a way of either expressing genuinely felt emotions, or as a means of emotionally framing emotional outcomes.

### Mean Comparison of Emotional Expressions by Presidency and Context

The figures and corresponding analyses that follow are representative of the aggregate presidential trait scores collected across the three speech contexts sampled. Each figure outlines the overall results of DICTION 6.0 analysis of the specific emotions-based metrics explored therein (Hart and Carroll 2012).



Figure 1 – Expressed Aggression Across Contexts and Presidencies

Figure 1 shows the mean expressed aggression score for each president across all three contexts of interest. The presidencies are presented in chronological order, with each president's speech samples categorized by shading as indicated in the key. Presidents Truman, Eisenhower, and Johnson, are missing presidential debate samples, and therefore those bars are omitted above. The mean line represents the overall mean score across all ten presidencies and the three speech contexts. Finally, individual scores are provided in order to aid in the formation of comparisons between presidencies and across contexts. Score ranges vary between each emotional expression, and are determined using DICTION's comparison of each text to mean standard speech samples (Hart and Caroll 2012).

President Nixon displays the highest expressed aggression among presidents within the context of news conferences with a corresponding score of 4.6. Interestingly, President Nixon scored lowest in terms of expressed aggression within the context of State of the Union Addresses, with a score of 3.45. This is a strong indicator that President Nixon may have been consciously regulating his emotional expressions in the context of prepared speech, but was unable (or unwilling) to do so in the context of spontaneous speech. In either case, there exists a clear difference between the President Nixon's spontaneous and prepared samples. President Truman scored lowest in terms of expressed aggression within the news conferences sample, with a score of 2.78.

President Clinton displays the highest expressed aggression among presidents within the context of presidential debates with a corresponding score of 8.91. President Clinton also displays the highest expressed aggression among presidents within the context of presidential State of the Union Addresses with a corresponding score of 9.23. President Clinton also had the

highest scoring individual State of the Union Address on February 17, 1993 in which he focused almost exclusively on communicating the fiscal challenges of the time while framing the speech as a call to action and political reform.

Additionally, President Clinton had the highest expressed aggression in a presidential debate with Bush and Perot on October 11, 1992 in which President Clinton repeatedly stated that the candidates had attacked his patriotism over the course of the race. In particular, he used the word "attack" to describe his opponents' criticism of his decision to visit Russia in 1969. These types of expressions resulted in President Clinton's higher than average scores, and indicate a predisposition for more aggressive expression and emotional framing in both his prepared and spontaneous speeches. Conversely, President Bush scored lowest in terms of expressed aggression within this context, with a score of 1.90.

Overall, the prepared context (State of the Union Addresses) yielded the highest average scores of expressed aggression across 9 of the 10 presidencies sampled. Similarly, the spontaneous speech contexts (presidential news conferences and presidential debates) yielded the lowest overall scores for expressed aggression across all of the presidencies sampled. The presidential news conferences sample in particularly yielded the lowest scores of expressed aggression across 6 of the 10 presidencies sampled. In each instance, the individual speaking across contexts shows a large differential in expressed aggression, and this trend is clearly one that spikes across prepared contexts and drops in debates and news conferences. Two psychological predispositions became apparent across Contexts. President Clinton in particular held the highest scores for expressed aggression across State of the Union Addresses and presidential debates. This trait however was not manifested in the news conferences sample.

Similarly, President Nixon also displayed the lowest and second lowest scores across two speech contexts, but he also scored the highest expressed aggression in presidential news conferences. These differing scores across news conference speeches may indicate that spontaneous contexts reflect the individual speaker's emotions, rather than measuring the tone of political messages of the administration as a whole.



Figure 2 – Expressed Passivity Across Contexts and Presidencies

President Kennedy has the highest expressed passivity among presidents within the context of presidential news conferences with a score of 5.84. However, President Kennedy holds the second lowest score within State of the Union Addresses at 5.06 and in the context of presidential debates at 2.85. Similarly, President Nixon has the lowest expressed passivity within presidential debates, with a score of 2.47. This finding is interesting in that the four Kennedy-Nixon debates assessed in the sample were the first presidential debates ever held, and showed the lowest scores in expressed passivity across all of the presidencies sampled. It may therefore be the case that presidential debates have evolved in such a way as to allow higher levels of passivity to be expressed acceptably, or denotes that specific presidential candidates have an influence on the general tone of a debate.

President Clinton displays the highest expressed passivity among presidents within the context of presidential debates with a corresponding score of 5.74. President Clinton also has the second highest expressed passivity within the context of presidential news conferences, with a score of 5.49. President Clinton had the highest single passivity score among presidential news conferences on March 21, 2000, in India following a meeting with Prime Minister Vajpayee in which Prime Minister Vajpayee stated that their goal in coming together was to create "a new relationship of mutual trust and respect" between the two nations. President Clinton displayed similarly high levels of expressed passivity throughout his talks with Prime Minister Vajpayee, and in the many diplomatic talks in which he engaged throughout his presidency.

President Truman displays the highest expressed passivity in the context of presidential State of the Union Addresses at 11.96, and recorded the single highest State of the Union Address score for expressed passivity on January 8, 1951. This score may be unexpected, given

the high level of U.S. military engagement in Korea at the time due to Cold War conflict. However, the high level of overall expressiveness in the speech is partially explained by President Truman's consistent message that a peaceful solution to the conflict is best, and that international cooperation in the United Nations must be established in order to end the conflict quickly. President Truman indicated in the speech that he was hopeful that through international cooperation the conflict could more easily be contained. Therefore, it seems that President Truman's adamantly expressed pleas for international cooperation may have influenced President Truman's score and resulted in high expressed passivity in the timeframe despite the significance of the Korean War as the beginning of an aggressive time and The Cold War itself.

Overall, the prepared context once again yielded the highest average scores of expressed passivity, in this instance, across 9 of the 10 presidencies sampled. The spontaneous speech contexts yielded the lowest overall scores for expressed passivity in 9 of the 10 presidencies sampled. The presidential debates sample in particular yielded the lowest scores of expressed passivity across 6 of the 10 presidencies sampled. Once again there is a significant differential in expressed passivity across contexts. This trend is clearly one that spikes across prepared contexts and drops in debates and in the spontaneous news conferences.



Figure 3 – Expressed Blame Across Contexts and Presidencies

President Nixon displays the highest expressed blame among presidents within the context of presidential news conferences at 1.57, and also displays the highest expressed blame in the context of presidential debates at 2.63. However, he scored lowest in expressed blame within the context of State of the Union Addresses with a score of .51. President Nixon's high scores in both presidential debates and news conferences possibly indicate a psychological trait that is communicated across both spontaneous speech contexts. His significant score in the opposite direction in State of the Union Addresses may once again indicate a conscious effort to regulate emotional expressions that may not be deemed appropriate to the given speech. These results seem to support the hypotheses that spontaneous speeches can reveal traits that would otherwise be undetectable in samples consisting of prepared contexts. Notably, the highest score across all of the contexts is President Nixon's aggregate debate score, which is again assessed using the Kennedy-Nixon televised debate sample.

President Bush displays the highest expressed blame in the context of presidential State of the Union Addresses at 3.15, along with the second highest score in presidential news conferences at 1.40. President Bush reaches the highest single State of the Union Address in his speech on January 28, 1992, in which The President spent approximately half of his address recounting the events leading to the end of The Cold War. The trait is distinctly expressed in prepared speeches, but is not expressed in the spontaneous contexts sampled.

The prepared context once again yielded the highest average scores of expressed blame across 8 of the 10 presidencies sampled. The presidential conferences and debates samples each yielded the lowest scores of expressed blame across 5 of the 10 presidencies sampled. Interestingly, the variation across contexts of expressed blame was quite pronounced, with

President Nixon holding both the highest blame score in presidential news conferences and debates, and the lowest among State of the Union Addresses. Similarly, President Bush expressed the second lowest blame among presidents in debates, but the highest expressed blame in prepared State of the Union speeches. These observations may indicate a discrepancy between individual verbal expressions of blame in different contexts, or a dissonance between the verbal expression of blame and the corresponding personality trait disposition to blame others more often on a personal-cognitive level.



Figure 4 – Expressed Praise Across Contexts and Presidencies

President Bush displays the highest expressed praise among presidents within the context of presidential news conferences with a corresponding score of 8.09, and the highest expressed praise within the context of presidential debates at 10.20. President Bush also has the single highest praise score in a news conference with Canadian Prime Minister Martin Mulroney on April 10, 1990 in which they discussed foreign relations, Europe, and trade partnerships involving Canada and the United States. President Bush had similarly high praise scores across all of his spontaneous speeches, especially those focusing on topics of diplomatic importance. Finally, President Bush displayed above average scores in State of the Union Addresses as well. Overall, it seems that President Bush has a strong disposition toward expressed praise in all three contexts.

President Nixon displays the highest expressed praise among presidents within the context of presidential State of the Union Addresses with a corresponding score of 8.79. President Nixon also has the highest single State of The Union Address score from January 22, 1971, in which he frequently praises the recently elected, and majority democrat, 92d Congress in an effort to advance his proposals in the face of otherwise potentially restricting partisanship. However, President Nixon holds the second lowest score in expressed praise within the context of presidential news conferences, again showing that he is potentially regulating his emotional expressiveness across contexts on a conscious level. This result ties in well with literature on charismatic leadership style, indicating that high levels of expressed praise may be cognitively synthesized in an effort to increase positive regard for the speaker (Erez et. al 2008).

President Ford displays the second highest expressed praise score across both presidential news conferences (8.02) and presidential debates (7.07). President Ford also has a high score in

the context of State of the Union Addresses of 7.64 that is well above average among the presidents sampled. President Ford, therefore, seems to have a robust predisposition toward expressed praise in all three contexts sampled. Finally, President Kennedy displays the lowest expressed praise within the context of presidential debates by far with a score of 2.68. President Kennedy also scored lowest in expressed praise within the context of State of the Union Addresses, with a score of 5.29, solidifying his low overall expressiveness of this trait.

Overall, the prepared context yielded the highest average scores of expressed praise across 6 of the 10 presidencies sampled. The spontaneous speech contexts yielded the lowest overall scores for expressed praise in the presidencies sampled. The presidential debates sample in particularly yielded the lowest scores of expressed praise across 6 of the 10 presidencies sampled. Once again, there are distinct personal differences in the expressed scores of each president. President Bush and President Ford both maintained the highest praise scores across the presidential spontaneous speech samples. These consistent findings support the theoretical framework presented, and help to validate the measurement of emotional expressions in spontaneous contexts as a means of discerning individual psychological traits that might not otherwise be communicated in prepared speech alone.

### **Cognitive Expressions by Presidency and Context**

The figures and corresponding analyses that follow are representative of the aggregate presidential trait scores collected across the three speech contexts sampled. Each figure outlines the overall results of DICTION 6.0 analysis of the specific cognition-based metrics explored therein (Hart and Carroll 2012).



Figure 5 – Expressed Certainty Across Contexts and Presidencies

President Truman displays the highest expressed certainty among presidents within the context of presidential news conferences with a corresponding score of 47.60. President Truman also displays the single highest presidential news conference score in his speech on April 22, 1948, in which he engages in a general question and answer session with reporters. Additionally, President Truman appears among the top two highest scores within the context of State of the Union Addresses at 49.91. These consistently high scores denote that President Truman likely has a predisposition toward high expressed certainty across contexts and independent of preparation or spontaneity in speech delivery.

President Nixon displays the highest expressed certainty among presidents within the context of presidential State of the Union Addresses with a corresponding score of 53.95, and holds the second highest score within presidential news conferences at 47.19. President Nixon has the highest single State of the Union Address score as well, once again referring to his January 22, 1971 speech in which he also scored highest among presidents in terms of expressed praise. It is likely that President Nixon sought to persuade the 92nd Congress to act in a bipartisan way by intentionally employing both emotional and cognitive arguments in his speech.

President Carter displays the highest expressed certainty among presidents within the context of presidential debates with a score of 53.28. Conversely, President Kennedy has the lost score in terms of expressed certainty in this context, with a score of 25.36. This substantial difference in scores may reflect the changing landscape of presidential debates over time, as discussed earlier in terms of the emotional expressions measured herein. However, this finding extends support for the argument to cognitive measurements as well.

Overall, the prepared context yielded the highest average scores of expressed certainty
across 7 of the 10 presidencies sampled. The spontaneous speech contexts had the lowest overall scores for expressed certainty. Specifically, presidential news conferences had the lowest scores of expressed certainty across 7 of the 10 presidencies sampled. It is interesting to note that once again trends appear within the presidencies ranking the highest and lowest across contexts. President Truman and President Nixon both display high expressed certainty across both prepared and spontaneous contexts, while President Kennedy and President Bush appear among the lowest scores of expressed certainty across the spontaneous contexts. These similar results also support the conclusion that static cognitive traits will be expressed in varying speech contexts given a sufficient number of speeches across time for comparison.



Figure 6 – Expressed Realism Across Contexts and Presidencies

President Kennedy displays the highest overall expressed realism among presidents within the context of presidential debates with a corresponding score of 56.86. This result is well above all of the other scores across contexts, however, President Kennedy drops below the mean line in presidential news conferences, and does not rank among the top scorers in the context of the State of the Union Address. Overall, this outlier of expressiveness may once again be a reflection of the historical uniqueness of the Kennedy-Nixon presidential debates.

President Johnson displays a high level of expressed realism among presidents within the context of presidential news conferences with a score of 50.55. President Johnson remains among the top two scoring presidents in the context of State of the Union Addresses at 52.66, and displays a cognitive disposition toward expressed realism overall. However, President Johnson's verbal disposition toward expressed realism in public communication early on in his presidential career may also be partially influenced by the content of his public speech, specifically regarding the circumstances under which he took office following President Kennedy's assassination on November 22, 1963.

President Carter has the lowest score within this context, with a score of 48.75. However, President Carter also holds the second highest across presidential debates at 53.69. Similarly, President Bush holds the second lowest score within the context of presidential news conferences with a score of 49.30, but also displays the highest expressed realism among presidents within the context of presidential State of the Union Addresses with a corresponding score of 53.00. These high levels of variations across contexts and presidencies seem to indicate that none of the cases show a strong trait expression or predisposition as presented in the analyses.

One notable exception to this conclusion may be President Ford, in that he displays the

lowest score within the context of presidential debates (48.88), and holds the second lowest score within the context of State of the Union Addresses as well (49.89). However, this result is not conclusive, and low scores for a given cognitive trait do not indicate trait regulation as might otherwise be denoted by a corresponding to low scores on emotional expressiveness. Rather, a low cognitive score likely indicates a lack of the given trait, not a conscious effort to regulate it.

Overall, the prepared context yielded the highest average scores of expressed realism across 7 of the 10 presidencies sampled. Similarly, the spontaneous speech contexts yielded the lowest overall scores for expressed realism. The presidential news conferences sample in particularly yielded the lowest scores of expressed realism across 9 of the 10 presidencies sampled. Across contexts and presidencies, expressed realism does not seem to provide clear psychological trait patterns as displayed by some of the presidents across the emotional variables presented in this framework. The consistent discrepancies across presidencies may indicate that general pragmatic thinking is communicated primarily consciously, in order to convey a particular political message rather than as the result of traits expressed over time. These findings challenge predominantly cognitive frameworks that assume individuals' beliefs play a dominant role in shaping speech content and reflect the traits of individuals rather than agendas used for policy framing as expressed through public speech.



Figure 7 – Expressed Optimism Across Contexts and Presidencies

President Ford displays the highest expressed optimism among presidents within the context of presidential news conferences with a corresponding score of 51.84. Furthermore, President Clinton scores among the top two presidents in all three speech contexts analyzed. Specifically, his scores 51.60 in presidential news conferences, 54.22 in presidential debates, and 53.41 in State of the Union Addresses. President Clinton's October 11<sup>th</sup>, 1992 presidential debate is once again notable, in that it scores the highest in overall optimism (as well as overall expressed aggression as mentioned in the corresponding section above). It seems that despite his opponents' criticisms and his retaliatory comments in the debate, President Clinton communicates an intentionally positive and hopeful message, particularly focusing on job creation and the economy. Overall, President Clinton displays a strong disposition toward expressed optimism across both spontaneous and prepared contexts.

President Bush displays the highest expressed optimism among presidents within the context of presidential debates with a corresponding score of 55.41. Again, President Bush's April 10, 1990 news conference with Canadian Prime Minister Martin Mulroney was the highest scoring news conference for the expressed trait. President Bush was also in office during the end of The Cold War, a historical event that presumably also raised expressed optimism in public speech. Conversely, President Kennedy holds the second lowest score within this context with a score of 49.30. He also has the lowest score within State of the Union Addresses at 48.05, and was likely also influenced by historical events such as The Bay of Pigs Invasion, The Cuban Missile Crisis, and similar Cold War conflicts that reduced overall international optimism.

President Carter displays the highest expressed optimism among presidents within the context of presidential State of the Union Addresses with a corresponding score of 55.05.

President Carter also has the single highest score for expressed optimism among State of the Union Addresses on January 25, 1979, declaring that the U.S. had reached a state of peace. President Carter delivered similarly positive messages throughout 1979 as the U.S. and China established diplomatic relations. However, President Carter scored lowest in terms of expressed optimism within the context of presidential debates, with a corresponding score of 48.31. This may again indicate that expressions of cognitive traits are more context-driven than emotional expressions tend to be overall.

Overall, a president's expressed optimism is the only variable for which the highest scores are split evenly across prepared and spontaneous contexts. Prepared speech samples and spontaneous samples both achieve the highest scores in 5 out of the 10 presidencies. Presidential news conferences yielded the highest scores in 3 instances, while presidential debates yielded the highest scores in the remaining 2. This result may indicate a significant difference in how expressed optimism is interpreted by audiences, specifically in that the public may react more positively to expressed optimism from a candidate in news conferences or debates than in other contexts, or in comparison to other cognitive or emotional expressions. Conversely, it may be the case that presidents are generally optimistic in their public discourse, and therefore are free to express optimism across contexts and without self-censorship. This may be an interesting avenue for future research to explore.

Additionally, the trend of high expressed optimism from President Clinton is interesting and well established. President Clinton ranked among the two top scoring presidents across each of the three contexts, and almost certainly expresses a psychological predisposition toward optimistic traits. President Kennedy also displayed a psychological predisposition, as he

expressed the second lowest optimism scores in both presidential debates and State of the Union Addresses. These trends span across both prepared and spontaneous contexts.

## **Comparative Results Conclusions**

In concluding this section, it is important to note the macro-level trends observed both across presidencies and among the prepared and spontaneous speech contexts. Overall, the prepared speech context yielded the highest average results across presidencies and observed expressions. The results of the prepared context may have yielded exaggerated levels of each expressed emotion or belief because the prepared communications reflect the administration's preferred emotional framing of the events and decision discussed in each speech. Such emotional framing by the administration may be meant to communicate the desired emotional responses of domestic and foreign audiences. This may be what is captured in the prepared sample, despite a possible lack of genuine trait expressiveness across the other contexts.

Additionally, although the spontaneous speech contexts (presidential news conferences and presidential debates) yielded the lowest average scores across all but one of the variables measured, there are significant trends across presidencies and traits that can be ascertained from the data. Each of the trends discussed above lends support to the idea that traits can be measured across speeches and contexts, and do influence emotional regulation and expressiveness. In fact, most of the scores for each of the variables revealed clear presidential leaders expressing each trait either to a greater or lesser degree than his peers. This result is fascinating, and clearly supports the hypotheses that content-analysis based on emotional regulation and expression in spontaneous contexts reflects psychological predispositions across a large sample of speeches.

# **REGRESSION ANALYSES RESULTS**

### **Summary of Regression Analyses Results**

Figure 8 below shows Howell and Pevehouse's (2005) major uses of force index over annual quarters. There is a discernable spike in the number of uses of force after 1960 quarter one; however, the data are generally distributed around zero uses of force per quarter, resulting in a stationary dataset. The data are not zero inflated. Additionally, correlation is low over time, and Figure 9 shows a partial correlogram with only two quarters falling outside of the confidence band for zero correlation between observations. Finally since the data constitute count data ranging from zero uses of force to a maximum of five major uses of force in one quarter, negative binomial regression models with lagged variables were employed in testing H-1 through H-7.

The presidential news conference sample was used in two models, with one quarter lags for each of the independent variables. The State of the Union sample was used in two models as well, however, one year lags were applied to each of the independent variables since the State of the Union Address is given annually in either quarter one or two of the given year. All four regression models included Howell and Pevehouse's (2005) control variables and count data for uses of force. Across all of the models, H-1 is the only hypothesis that is supported: expressed aggression in the State of the Union sample is shown to be statistically significant at P < .05 with P = 0.016, but it is not significant when sampled from presidential news conferences.



Figure 8 – Major Uses of Force from 1945q1 to 2000q1 (Howell and Pevehouse 2005)

Table 1 below shows there are only low levels of correlation between the independent variables used in the emotional expressions model. The highest level of correlation is between passivity and praise (Pearson's r = .20), but this is only a weak relationship, and it does not present problems of multicollinearity in the model. Interestingly, this relationship is to be expected, as both passivity and praise are influenced by the emotion of joy, and should be expressed more frequently under joyous circumstances. Aggression and Blame also have a weak relationship (Pearson's r = .11) that does not present problems of multicollinearity. Again, both emotions share a positive correlation that supports the theoretical inclination that anger and vulnerability are the emotions at the core of these expressions. The positive relationship, though weak, provides some evidence that the expressions are manifested due to non-conflicting emotional experiences.

		Aggression	Passivity	Blame	Praise
Aggression	Pearson Correlation	1.00	0.08	0.11	0.05
	Sig. (2-tailed)		0.28	0.11	0.46
	Ν	212	212	212	212
Passivity	Pearson Correlation	0.08	1.00	-0.04	0.20
	Sig. (2-tailed)	0.28		0.56	0.00
	Ν	212	212	212	212
Blame	Pearson Correlation	0.11	-0.04	1.00	0.08
	Sig. (2-tailed)	0.11	0.56		0.27
	Ν	212	212	212	212
Praise	Pearson Correlation	0.05	0.20	0.08	1.00
	Sig. (2-tailed)	0.46	0.00	0.27	
	Ν	212	212	212	212

Table 1 – Correlation Analyses of Emotional Expressions in Presidential News Conferences

## **Presidential News Conferences and Major Uses of Force**

Negative binomial regression models were employed in the following analyses because the models are appropriate for accommodating the count variable data used in measuring the dependent variable (major uses of force). Additionally, the independent variable data meet the requirements of the model in that they are lagged with minor levels of collinearity, and are grouped in order to test H-1 through H-4 and H-5 through H-7 respectively. Separate models for each hypotheses set using the negative binomial regression also allows for a time lag of either one year or one quarter year depending on the speech content analyzed. This lag is necessary in testing the theoretical inclination that speeches that precede future uses of force can provide indicators of expressed emotion and cognitive state that foreshadow increases or decreases in uses of force in the subsequent year or quarter. Finally, each regression is conducted using a robust model in order to ensure that standard errors are accounted for as well.

Table 2 – Emotional Expressions in Presidential News Conferences and Major Uses of Force

Negative Binomial Regression Wald chi2 (13) = 34.43 Probability > chi2 = 0.00 Log Pseudo Likelihood = -210.36

Major Force	Coef.	Std. Err.	Z.	P > z	[95% Conf.	Interval]
Aggression_L1	0.02	0.06	0.41	0.68	-0.09	0.14
Passivity_L1	-0.03	0.07	-0.49	0.63	-0.16	0.10
Blame_L1	0.01	0.14	0.07	0.95	-0.27	0.29
Praise_L1	0.03	0.04	1.04	0.30	-0.03	0.11
Majority	4.15	1.79	2.32	0.02	0.64	7.66
Approval	0.00	0.01	0.38	0.70	-0.01	0.02
Unemployment	0.16	0.08	2.04	0.04	0.01	0.31
War	-0.33	0.27	-1.20	0.23	-0.86	0.21
Cold War	0.28	0.42	0.68	0.49	-0.53	1.10
Election	0.23	0.24	0.97	0.33	-0.23	0.69
Heg. power	1.78	3.09	0.57	0.57	-4.29	7.84
President	-0.03	0.07	-0.38	0.71	-0.16	0.11
Pres. Party	0.89	0.35	2.55	0.01	0.21	1.58
Constant	-5.06	1.92	-2.64	0.01	-8.81	-1.30
/Ln Alpha	-2.81	2.74		-8.19	2.56	
Alpha	0.06	0.16		0.00	12.98	
Ν	212					

Table 2 shows the results of the negative binomial regression analysis conducted using presidential emotional expression scores derived from the presidential news conferences sample consisting of 1,201 speeches. Each expression score has been averaged from all presidential news conferences given within each annual quarter ranging from 1945 quarter one to 2000 quarter one and resulting in N =212 with 8 missing cases. Each expressed trait score has been lagged by one quarter in order to match the theoretical framework that states each emotional expression will immediately be followed by the subsequent use of force meant to relieve the emotion and reinstate emotional regulation. Expressed aggression, passivity, and blame all have coefficients that move in the expected direction, however, none of the independent variables are significant at the P < .05 level.

These results may indicate that presidential news conferences are a context in which emotional regulation is unusually high, particularly given the higher levels of emotional expressiveness observed across all traits (with the exception of optimism) in State of the Union Addresses. The lack of statistically significant findings in relation to major uses of force within presidential news conferences may be due to the limitations of the conference format, or a reflection of the heightened importance of speech writers and policy advisers in forming a more accurate speech in terms of depicting planned future action. Given that each president is predisposed to display a certain level expressiveness as shown in the comparative results section of this work, the limitations on expressiveness across the spontaneous context seems to be indicative of a trend that is isolated to the spontaneous context. Therefore, the relevance of expressed emotion in presidential news conferences to decisions to engage in major uses of force seems to be limited. Overall, the model does not support H-1 through H-4 within the context of

presidential news conferences.

Three control variables appear to have a significant effect on the dependent variable: presidential majority (P = .02), unemployment (P = .04), and presidential party (P = .01). All three controls are significant at the P < .05 level. Presidential majority in Congress is likely relevant in this model due to the underlying role Congress plays in legitimizing and funding major uses of force. The support of Congress allows the president to officially declare war and legitimize major military operations that might otherwise be perceived to be unilateral actions taken by the administration. Without Congressional support and its contribution to legitimacy, the president may face growing opposition to military engagement, and be additionally wary of engaging in major disputes that further strain the administration and citizen's interpretations of events (Howell and Pevehouse 2005). Therefore, uses of force are likely to increase with presidential support in Congress, as it represented in the model.

Additionally, increases in unemployment also seem to indicate higher subsequent major uses of force. Howell and Pevehouse (2005) expect this effect, given the assumptions of the diversionary theory of war regarding unemployment's influence on presidential decision making in a democracy. The findings seem to support the conclusion that the political relevance of unemployment, although it is a domestic measurement, is not limited to domestic decision making. Finally, the president's political party affiliation also reaches statistical significance, and helps to predict subsequent uses of force. These findings indicate that domestic factors may partially influence the foreign policy decision to engage in major uses of force.

Table 3 below shows that there are only low levels of correlation between the independent variables used in the cognitive expressions model. The highest level of correlation is between expressed certainty and optimisms (Pearson's r = -.41), presenting a negative and moderately weak relationship between the variables. This again does not present problems of multicollinearity in the model.

		Certainty	Realism	Optimism
Certainty	Pearson Correlation	1	.13	41
	Sig. (2-tailed)		.07	.00
	Ν	212	212	212
Realism	Pearson Correlation	.13	1	09
	Sig. (2-tailed)	.07		.20
	Ν	212	212	212
Optimism	Pearson Correlation	41	09	1
	Sig. (2-tailed)	.00	.20	
	Ν	212	212	212

Table 3 – Correlation Analyses of Cognitive Expressions in Presidential News Conferences

Negative Binomial Regression								
Wald chi2(12) = 34.74								
Probability > chi2 = 0.00 $Log Pseudo Likelihood = -210.34$								
Log I seuto Liketinoota = 210.54								
Major Force	Coef.	Std. Err.	Ζ.	P > z	[95% Conf.	Interval]		
Certainty_L1	0.02	0.05	0.44	0.66	-0.08	0.12		
Realism_L1	0.04	0.08	0.53	0.60	-0.11	0.19		
Optimism_L1	0.07	0.06	1.22	0.22	-0.04	0.19		
Majority	4.14	1.83	2.27	0.02	0.56	7.72		
Approval	0.00	0.01	0.31	0.76	-0.01	0.02		
Unemployment	0.15	0.08	2.02	0.04	0.00	0.30		
War	-0.36	0.28	-1.28	0.20	-0.92	0.19		
Cold War	0.38	0.38	1.00	0.32	-0.37	1.13		
Election	0.18	0.23	0.80	0.42	-0.26	0.62		
Heg. Power	2.48	3.08	0.80	0.42	-3.56	8.52		
President	-0.01	0.06	-0.15	0.88	-0.13	0.11		
Pres. Party	1.00	0.34	2.89	0.00	0.32	1.67		
Constant	-11.96	6.30	-1.90	0.06	-24.32	0.39		
/Ln Alpha	-2.98	3.29		-9.43	3.47			
Alnha	0.05	0 17		0.00	32 03			
λ	212	0.17		0.00	52.05			
1 V								

Table 4 – Cognitive Expressions in Presidential News Conferences and Major Uses of Force

Table 4 shows the results of the negative binomial regression analysis conducted using presidential cognitive expression scores derived from the presidential news conferences sample. Again, N = 212 with 8 missing cases, and all cognitive expressions have been averaged from

each speech given in each annual quarter. Each expressed trait score has again been lagged by one quarter. Expressed certainty and expressed realism both have coefficients that move in the expected direction, indicating partial support for the theoretical inclination presented herein, however, neither is statistically significant at P < .05. Interestingly, the cognitive model does not seem to yield more robust findings than those gathered through an assessment of emotional expressions within the context of presidential news conferences. Similarly, presidential majority (P = .02), level of unemployment (P = .04), and presidential party (P = .00) are all once again statistically significant, and may indicate domestic influences on the foreign policy decision making process. Overall, the model does not support H-5, H-6, or H-7 within the context of presidential news conference samples.

This finding supports the theory that the question and answer format may be limiting overall expressiveness, or that expressiveness increases in relevance in formal speech settings due to other variations in speech contribution as mentioned above. Even optimism fails to reach statistical significance, although it comes closest. Although, cognitive expressions are expected to have an effect on decision making regarding major uses of force, this finding does not support that conclusion within the context of presidential news conferences.

# State of the Union Addresses and Major Uses of Force

Table 5 again shows low levels of correlation between the independent variables used in the emotional expressions model. The highest level of correlation is between expressed aggression and praise (Pearson's r = -.25). This relationship makes theoretical sense, as the emotions at the core of these expressions (anger and joy respectively) are conflicting, and yield opposite effects on emotional regulation.

		Aggression	Passivity	Blame	Praise
Aggression	Pearson Correlation	1.00	-0.14	0.02	-0.25
	Sig. (2-tailed)		0.32	0.90	0.07
	Ν	55	55	55	55
Passivity	Pearson Correlation	-0.14	1.00	-0.09	-0.20
	Sig. (2-tailed)	0.32		0.51	0.14
	Ν	55	55	55	55
Blame	Pearson Correlation	0.02	-0.09	1.00	0.08
	Sig. (2-tailed)	0.90	0.51		0.57
	Ν	55	55	55	55
Praise	Pearson Correlation	-0.25	-0.20	0.08	1.00
	Sig. (2-tailed)	0.07	0.14	0.57	
	Ν	55	55	55	55

Table 5 – Correlation Analyses of Emotional Expressions in State of the Union Addresses

Negative Binomial Regression								
Wald chi2(13) = 58.69								
Probability > cni2 = 0.00 $Log Pseudo Likelihood = -92.56$								
Log T seudo Likelihoodu = 92.50								
Major Force	Coef.	Std. Err.	Z.	P > z	[95% Conf.	Interval]		
Aggression_L1	0.03	0.01	2.41	0.02	0.01	0.06		
Passivity_L1	-0.02	0.02	-0.82	0.41	-0.06	0.03		
Blame_L1	-0.03	0.08	-0.46	0.65	-0.18	0.11		
Praise_L1	0.00	0.02	-0.16	0.87	-0.03	0.03		
Majority	0.50	1.97	0.25	0.80	-3.35	4.35		
Approval	0.02	0.01	1.86	0.06	0.00	0.04		
Unemployment	0.19	0.08	2.51	0.01	0.04	0.34		
War	-0.11	0.25	-0.44	0.66	-0.61	0.39		
Cold War	0.67	0.33	2.04	0.04	0.03	1.31		
Election	0.09	0.22	0.42	0.68	-0.33	0.51		
Heg. Power	-0.64	4.46	-0.14	0.89	-9.38	8.10		
President	-0.02	0.07	-0.27	0.78	-0.15	0.12		
Pres. Party	0.23	0.38	0.60	0.55	-0.52	0.97		
Constant	-1.84	2.21	-0.83	0.41	-6.18	2.50		
/Ln Alpha	-15.47	1.19		-17.81	-13.13			
Alpha	0.00	0.00		0.00	0.00			
лірни	0.00	0.00		0.00	0.00			
N	54							

Table 6 – Emotional Expressions in State of the Union Addresses and Major Uses of Force

Table 6 shows the results of the negative binomial regression analysis conducted using presidential emotional expression scores derived from the State of the Union Address speech sample consisting of 54 speeches. Each expression score has been averaged from the presidential

State of the Union speech given in each designated year ranging from 1945 to 2000, resulting in N = 54 with 1 missing case. Additionally, since the State of the Union is only given once annually, it communicates the entire decision making agenda for the year to both the public and Congress. Therefore, each of the expressed trait scores is lagged by one year. Finally, the State of the Union Address is always given in annual quarters one or two, meaning that the model assigns each year to the president that gave the corresponding State of the Union Address.

As shown above, expressed aggression moves in the expected direction (.032) and is significant at P < .05 with a value of P = .016. Therefore, H-1 is supported within the context of State of the Union Addresses, and shows that expressed aggression may foreshadow major uses of force in the subsequent year, providing a salient research finding in this thesis. The individual-level significance of expressed aggression in determining significant uses of force is therefore supported, and the findings of this model help to partially connect the theoretical argument to observable instances of major uses of force in the subsequent year, making significant progress in establishing an understanding of the necessary lag between speech delivery and overall administrative action.

Future studies must be conducted in order to fully understand the role of individual-level emotional regulation effects on the decisions of the administration to engage in uses of force. Herein, the model may indicate that expressed aggression becomes additionally salient when the speech contributions of other members of the party, and the president's advisers, are considered. Those individuals that help to shape the linear delivery of the State of the Union Address may also similarly influence the implementation of policy and affect the decision to engage in major uses of force, partially explaining why the prepared context reached statistical significance when

spontaneous speeches did not. Notably, the comparative presidential results presented above also seem to support this conclusion by showing that the levels of all expressed emotional and cognitive traits are heighted in prepared speech contexts with the only exception being expressed optimism. Therefore, this model may reach significance in part because speech contributors increase overall expressiveness in such a way as to foreshadow a shared administrative tone and a corresponding plan to engage in decision making together.

Expressed passivity and praise also move in the expected direction, but are not statistically significant. It may be that these traits, along with expressed blame and praise do not have a significant effect on the decision to engage in major uses of force, or lose predictive power because they move in the opposite emotional direction as is needed to regulate the emotion of anger (as is the case with expressed passivity and praise). Those actions-based expressions that express joy, or any other core emotion, may be only indirectly relevant to the regulating behaviors that accompany aggression.

However, as can be seen in the comparative results, these traits do vary across presidencies, and are mostly expressed at a stable level across contexts as well. This may indicate that future research is needed to discern the effects of these other traits on the emotional regulation of leaders during the decision making process. It is likely that although the decision to engage in major uses of force does not seem to be affected, other components of the administration's decision making, or leadership perception by the public, may be affected by the expressions measured.

Finally, unemployment rate is once again statistically significant (P = .01), with approval rating approaching significance as a second relevant domestic factor (.06). Cold War period also

reaches statistical significance (P = .04). Unemployment rate is well established as a significant control variable in the models, and it is interesting to note that approval rating is found to be relevant with the application of the one year time lag, where the quarterly lag did not result in significance. This may indicate that presidential approval has a delayed effect on decision makers, and, as might be expected, is not immediately formed and made relevant to future decision making. Additionally, the effect is in the positive direction with a coefficient of .02, and is not as strong as the other control variables considered. The Cold War is similarly significant on the larger time scale one annual lags with a larger positive coefficient of .67. This may indicate that the Cold War international atmosphere and the heuristics that influence decision makers are also time sensitive. Overall, the model partially supports H-1, but does not support H-2, H-3, or H-4 within the context of State of the Union Addresses.

Table 7 shows low levels of correlation between the independent variables used in the cognitive expressions model. Once again, expressed certainty and optimisms yield the highest level of correlation in the negative direction (Pearson's r = -.25). This weak relationship does not present problems of multicollinearity in the model.

		Certainty	Realism	Optimism
Certainty	Pearson Correlation	1	.19	25
	Sig. (2-tailed)		.16	.07
	Ν	55	55	55
Realism	Pearson Correlation	.19	1	.27
	Sig. (2-tailed)	.16		.05
	Ν	55	55	55
Optimism	Pearson Correlation	25	.27	1
	Sig. (2-tailed)	.07	.045	
	Ν	55	55	55

Table 7 – Correlation Analyses of Cognitive Expressions in State of the Union Addresses

Negative Binomial Regression							
Probability > chi2 = 0.00							
Log Pseudo Likelihood = -93.62							
Major Force	Coef.	Std. Err.	Ζ.	P > z	[95% Conf.	Interval]	
	0				- 0		
Certainty_L1	0.01	0.04	0.16	0.87	-0.07	0.09	
Realism_L1	-0.03	0.04	-0.84	0.40	-0.11	0.05	
Optimism_L1	-0.02	0.03	-0.75	0.46	-0.08	0.04	
Majority	0.79	2.12	0.37	0.71	-3.36	4.94	
Approval	0.02	0.01	2.04	0.04	0.00	0.03	
Unemployment	0.22	0.08	2.86	0.00	0.07	0.36	
War	-0.07	0.30	-0.25	0.80	-0.65	0.51	
Cold War	0.60	0.36	1.68	0.09	-0.10	1.30	
Election	0.11	0.21	0.54	0.59	-0.30	0.52	
Heg. Power	0.74	4.37	0.17	0.87	-7.82	9.30	
President	0.01	0.07	0.08	0.94	-0.13	0.14	
Pres. Party	0.16	0.38	0.42	0.68	-0.59	0.91	
Constant	0.13	3.44	0.04	0.97	-6.62	6.88	
/Ln Alpha	-15.27	1.71		-18.62	-11.92		
Alpha	0.00	0.00		0.00	0.00		
Ν	54						

Table 8 – Cognitive Expressions in State of the Union Addresses and Major Uses of Force

Table 8 shows the results of the negative binomial regression analysis conducted using presidential cognitive expression scores derived from the State of the Union Addresses sample. Again, N = 54 with 1 missing case, and all cognitive expressions have been averaged from the

speech given in the designated year and subsequently lagged by one year.

In the model, expressed certainty and expressed realism have coefficients that move in the expected direction, but neither is significant at the P < .05 level. It is once again interesting to note that the cognitive expression model does not outperform the emotional expressions model. Overall, the model does not support H-5, H-6, or H-7 within the context of State of the Union Addresses.

Approval rating (P = .04) and Unemployment (P = .00) are both once again significant, and support the conclusions of the previous model. In fact, unemployment is a significant control variable across all four models and in each instance positively affects increases in major uses of force. This finding is robust, as it reaches across both quarterly and annual lags in a consistent manner, and supplies evidence to the theory that domestic political components have a significant influence on the decisions of an administration.

The aggregate findings of this section seem to indicate that expressed aggression in the context of State of the Union Addresses is the only statistically significant psychological determinant tested in predicting subsequent uses of force. Therefore, only H-1 is partially supported by the findings of this work. It may be the case that members of the administration, such as presidential advisers, speech writers, and other speech contributors, may have mitigated the predictive effect of the State of the Union sample by introducing conditions that are most similar to those present during the decision making process, which is also often engaged in in the presence of advisers. Conversely, it is possible that the administration is emotionally framing events, and therefore, emotional expressions may not foreshadow decisions to engage in major uses of force, but instead may indicate the outcome interpretations that the administration would

like citizens to adopt. These theories should be tested in future works, and it is likely that the foundation laid out herein will provide some of the necessary resources scholars will need in order to continue to answer these relevant questions.

# **CONCLUSION AND FUTURE RESEARCH**

### **Contributions to Existing Literature**

Although the findings of this study only partially support the hypotheses presented, there does seem to be a significant difference in the levels of expressed aggression in presidential State of the Union Addresses that coincide with subsequent major uses of force. This finding is additionally interesting in light of the comparative results of the analysis of spontaneous and prepared texts, showing that the State of the Union context presented the highest levels of expressiveness with the only exception being expressed optimism. Overall, this contribution to the literature can be interpreted as the beginning stages of understanding the role emotions and cognition play in the decision making process and its presentation to the public in the form of spontaneous and prepared presidential speeches. Additional research may elucidate the effects of these variations in expressiveness across contexts on other factors such as public opinion and perceptions of decision quality.

The comparative results presented herein help to clarify trends in the expression of emotional and cognitive traits over time and across presidencies. It seems that some expressions (such as optimism) appear across contexts while others do not, and it is clear that the many potential interpretations of these expressions by other leaders and the public may mitigate the frequency with which they are intentionally presented in speeches. In essence, understanding that there are systematic differences across expressions may help to illustrate the level of emotional acceptance for each expression both on behalf of the public and decision makers. If this is the case, then this research has taken the first step in illustrating how presidential expressions within

the designated time period of 1945 to 2000 might have been interpreted, and in identifying which expressions were deemed acceptable for use in public speeches of varying kinds. Specifically, it seems that almost all of the expressions measured are most prevalent in State of the Union Addresses, and are either intentionally repressed, or otherwise not inflated for the sake of the audience, in both presidential news conferences and presidential debates. The public interpretations of these differences in levels of emotional and cognitive expression may also be a necessary component to consider in the eventual formation of a comprehensive model of the feedback loop that ties the interpretations of decision making outcomes to future decision making processes as influenced by heuristics and emotional assessments of those past events. This research takes the first step in making future work in this vein methodologically possible.

This thesis also benefits the use of force literature in many respects. First, it can be seen from the results of the State of the Union model that expressed aggression is in fact a significant indicator of whether or not an administration will engage in major uses of force. That is to say that an individual-level assessment is a significant indicator of group or administration level decision making, therefore establishing the relevance of individual predispositions in the decision making process of the administration. This further illustrates the inter-connectivity of individuals in the decision making group, and helps to illustrate the decision making agency that individual leaders can exercise. Furthermore, given the temporal ranges of the personality assessments taken, the finding also suggests that personality traits are relevant indicators of decision making tendencies despite the possibility that personality states might be expressed in the moment before a decision is proposed in speech. The State of the Union sample, for instance, includes presidential scores across multiple years in each case, and provides a general assessment

that seems to indicate a relevant disposition toward the given expressions that dominate each president's speeches. These traits are measured across long periods of time, and are therefore not measurements of temporary state-based reactions to the political environment, current events, or the president's state of mind as reflected in a given instant after any stimulus is presented. Therefore, this analysis shows that the relevant disposition toward expressing aggression and subsequent uses of force is trait-based. This finding may help to define the relevant psychological scope for measuring aggressive dispositions for future uses of force researchers as they grapple with the decision to measure established traits or emotional and cognitive states.

Finally, this thesis contributes to the connection between political science and organizational psychology by establishing a methodological and theoretical approach to the study of emotion that relies heavily on interdisciplinary thinking. Political psychology has a robust understanding of the cognitive revolution of psychology, however, the application of these methodologies has left much room for the incorporation of more recent breakthroughs in understanding emotional intelligence and the decision making process. This thesis expands on the work of cognitive scholars by introducing findings that connect the scholarship on emotion to the political evaluation of leaders. Additionally, the frameworks of organizational leadership research from psychology are similarly expanded and supported by the many findings outlined in the thesis establishing variations among leaders in levels of emotional expressiveness in political speech, and the resulting theoretical implications of those expressive scores on the behavior and beliefs of citizens and audience members. Establishing these interdisciplinary connections lays the groundwork for additional collaboration across disciplines, and provides future researchers the opportunity to expand the role that emotions and leader-member-exchanges play in the

theoretical frameworks of political psychology as it continues to expand in scope to meet the demands presented by growing levels of complexity within the political system.

## **Possible Limitations**

Although this work employs speeches from varying contexts and time periods, and a methodology that encompasses both the cognitive and emotional aspects of personality, that are certain clear limitations that apply to the findings expressed herein. Specifically, ascertaining the felt emotional states of politicians is outside of the scope of any measurement that relies on verbal phenomenon (Bradley and Lang). Therefore, the presidential speech analysis conducted herein is limited in scope to representing only the expressed emotions conveyed in speech, and not the felt emotions of the president. Future work may hope to address this limitation by also accounting for non-verbal phenomenon and measuring the manifestations of emotion in the body (Bradley and Land 2000). Bradley and Lang (2000, 245) for example list several physiological responses that help convey felt emotion including changes in facial muscle patterns, bioelectrical activity in the brain, behavioral changes in approach or avoidance tendencies, and variations in voice intensity and speech patterns. Hopefully future researchers will have access to these methodologies as public video records become more common, and attaining computerized analysis of body language, facial expressions, and even electrical activity in the brain grow more practical each year.

Additionally, evaluating individual level psychological traits increases in difficulty when presented with the challenge of accounting for external speech contributors and their impact on the text. Political entities such as advisers, editors, and speech writers introduce a variety of

external pressures that shape the final text, moving it away from personal psychological expression and more deeply towards a united expression of the political positions that reflect the compromises made among individuals within the administration. Thus, the limitations of at-adistance and individual level psychological evaluation likely increase in the context of such prepared speeches. This work has included both prepared and spontaneous speeches in an effort to measure these expressed differences across contexts, and alleviate this concern at least to some degree. However, future researchers may wish to analyze texts of a personal nature such as diaries or personal written or spoken communications, in order to further isolate psychological expressions at the individual level. Private speech analysis is beyond the scope of this work, as few of those samples hold relevance to the context of political situations and expressed emotion. However, conducting such analyses whenever possible may help to determine a baseline score for traits that can be applied against political speeches more accurately.

Another possible way to gather a more accurate individual-level personality assessment is through the analysis of debate and conference speeches rather than formal documents and prepared addresses alone. This method is employed in the study at hand, and it does remove some of the influences of external entities such as advisers and speech writers in that the speech given must be synthesized in real-time. Although it is a partial solution to the problem of individual-level analysis, it does not guarantee that the emotions conveyed are free of the influence of coaching, priming, and the memorization of talking points. Additionally, since presidential news conferences are structured differently from linear speech, the responses given may vary in tone as topics of conversation change along with the questions that are formally presented. These are challenges that political researchers will continue to face in the foreseeable

future, until a robust methodology is developed for individual-level psychological analysis that includes the evaluation of non-written emotional expressions. This is additionally a concern when considering the emotional screening inherent in any public discourse. Therefore, as mentioned above, focusing on expressed emotions keeps researchers out of the muddied waters of felt or manifested emotions, and provides an accurate mapping of verbally quantifiable variations in emotional regulation at least until such a time as personally manifested emotions can be directly measured.

### **Future Research**

Presidential personality research has a clear and exciting avenue of growth in the form of emotions research. As the discipline of neuroscience continues to challenge the belief that cognition is fully responsible for decision making outcomes, it will become even more critical that researchers evaluate the importance of emotional framing and transference among political figureheads and elites. Particularly, as digital tools for evaluating felt emotion become more sophisticated and widely used in these contexts, they will revolutionize the way emotions measurements are collected. This expected evolution in political psychology's methodology may provide an avenue through which emotions researchers can evaluate decision making in real time, and provide a means by which to enhance the decision making process as it is taking place on any level within an administration.

Although this future may be far off, this work helps to validate the pursuit of those endeavors by showing the importance of creating holistic personal assessments that include emotional as well as cognitive indicators of psychological traits and states. The comparative

presidential assessments conducted herein show that such holistic appraisals can lead to the discernment of unique characteristics and traits that may have otherwise gone unnoticed by purely cognitive models. Additionally, the framing effects that emotional transferals have on a population are seemingly significant, and should be studied further within political psychology. However, these findings will only be understood fully with time, as the evidence points to a delayed effect, in which emotional transferal and framing may influence policy decisions and outcome interpretations indirectly through heuristics and schematic thinking. If this is the case, then population studies could be useful in understanding the indirect mechanism by which emotional framing leads to policy changes through shifts in cultural assessments over time.

There are many examples discussed in this thesis of the ways in which emotional expressions and assessments influence decision making. Investigating these connections may change the way political psychologists think about a president's level of influence on decision making and the public's interpretations of decision outcomes. Although cognitive judgments are a key component in these acts, there is an undeniable emotional component that should continue to be investigated as it has been in other disciplines. Through interdisciplinary cooperation, researchers have an opportunity to expand their understanding of the complexities of emotions and begin to accurately model the influence that they have on the cognitive evaluations of individuals, cultures, and the state.

# APPENDIX A DESCRIPTIVE STATISTICS FOR SPEECH CONTENT
				Total Speeches
President	News Conferences	Debates	State of the Union	Analyzed
Truman	301	0	8	309
Eisenhower	192	0	9	201
Kennedy	64	4	3	71
Johnson	126	0	6	132
Nixon	39	4	7	50
Ford	39	3	3	45
Carter	65	3	7	75
Reagan	46	4	8	58
Bush	137	2	4	143
Clinton	192	3	8	203
Ν	1201	23	63	1287

Table 9 — Total Presidential Speech Samples Collected

Source: The American Presidency Project (http://www.presidency.ucsb.edu/)

	Ν	Minimum	Maximum	Mean	Std. Deviation
Major Force	224.00	0.00	5.00	0.63	0.87
Aggression	212.00	0.86	15.99	3.46	1.75
Passivity	212.00	1.41	13.80	4.43	1.49
Blame	212.00	0.13	5.44	1.10	0.65
Praise	212.00	1.41	18.98	6.42	2.17
Certainty	212.00	38.38	51.49	46.64	1.75
Realism	212.00	45.82	53.43	49.75	1.17
Optimism	212.00	45.35	56.68	50.13	1.79
Majority	224.00	0.35	0.68	0.50	0.09
Approval	224.00	23.00	87.00	55.19	13.21
Unemployment	224.00	1.10	10.70	5.51	1.64
War	224.00	0.00	1.00	0.24	0.43
Cold War	224.00	0.00	1.00	0.80	0.40
Election	224.00	0.00	1.00	0.19	0.39
Heg. Power	224.00	0.26	0.52	0.33	0.06
President	224.00	0.00	9.00	4.43	3.16
Party	224.00	0.00	1.00	0.50	0.50
Ν	212.00				

Table 10 – Descriptive Statistics: Presidential News Conferences

Note: Results from Diction 6.0 analysis, DICTION - The Text-analysis Program (http://www.dictionsoftware.com/).

	Ν	Minimum	Maximum	Mean	Std. Deviation
Major Force	55.00	0.00	7.00	2.56	1.94
Aggression	55.00	1.71	34.04	6.86	4.97
Passivity	55.00	1.64	36.42	7.17	4.87
Blame	55.00	0.14	6.09	1.53	1.22
Praise	55.00	1.78	32.21	7.82	4.64
Certainty	55.00	40.50	53.88	48.99	2.76
Realism	55.00	47.49	62.08	51.92	2.41
Optimism	55.00	44.90	67.91	52.66	3.41
Majority	55.00	0.35	0.68	0.50	0.09
Approval	55.00	28.25	75.50	54.65	11.55
Unemployment	55.00	2.93	9.70	5.57	1.56
War	55.00	0.00	1.00	0.26	0.44
Cold War	55.00	0.00	1.00	0.80	0.40
Election	55.00	0.00	1.00	0.26	0.44
Heg. Power	55.00	0.26	0.52	0.33	0.06
President	55.00	0.00	9.00	4.46	3.17
Party	55.00	0.00	1.00	0.51	0.50
Ν	55.00				

Table 11 – Descriptive Statistics: State of the Union Addresses

Note: Results from Diction 6.0 analysis, DICTION - The Text-analysis Program (http://www.dictionsoftware.com/).

	Ν	Minimum	Maximum	Mean	Std. Deviation
Aggression	23.00	1.14	9.29	4.66	2.50
Passivity	23.00	0.86	13.43	4.51	2.69
Blame	23.00	0.12	3.69	1.39	1.00
Praise	23.00	2.13	12.54	6.98	2.64
Certainty	23.00	43.82	53.00	48.18	2.51
Realism	23.00	46.84	57.50	51.59	1.95
Optimism	23.00	44.62	61.51	50.78	3.04
Ν	23.00				

Table 12 – Descriptive Statistics: Presidential Debates

Note: Results from Diction 6.0 analysis, DICTION - The Text-analysis Program (http://www.dictionsoftware.com/).

# APPENDIX B COPYRIGHT PERMISSION LETTERS

#### Graduate Help with Research

John Woolley voordity@polect.uc.eb.edur To Etan Antat vake@trights.ucf.edur Co: Gedrard Peters «gerhard/Ti@gmail.gomo H-ENAL

Were of with this. Thanks for checking

Two requests  $\tau$  we advance to be actropoledge as a source  $2^\circ$  we REALLY work to be informed about enters you discover

Best. John Wastey

On 2/18/2014 7 16 AM. Elses Assar write.

Deer John.

I am contacting you are again regarding my test analysis project using data from the american previous project sortaits. I wanted to know if it is singlet with your team if I use an automated with contact surgary tag and of the test that i meet how the paids papers of the previous section. I ask tescase such automated data scrapeg to sometimes a copyright concern ever though the data is composed of public decoments.

Phases int me know at your earliest convenience, or if you have any questions about my sequent

Thorn you. Elies Assail

#### Thesis Data Request

Jon Pevehouse spelehous@polici was edu-To. Elao Assaf sala@kreghts.ucf.eds=

Here you got Let me know if you have any questions. Data is in STATA format Best. Jon

Jon C. W. Pevehouse Protessor Editor, International Organization Department of Political Science University of Wescursin-Madison 110 Noth Hild, 1050 Bascom Mall Madruon, WI 53706 (008) 262-4659

On Sag 25, 2013, at 1:01 PM, Ekas Assall value@exagina.ucl.edu/v sector

Dear Dr. Pershoose.

I am a graduate student at The University of Central Printle interested in using your "quanterly U.B. uses of force" data from 1985-2000, used in the article. "Presidents, Congress, and the Use of Force" for my thesis work

Might you provide me with, and allow me to use, this state set?

Tue, Peb 18, 2014 at 3,32 PM

Thu, Sep 26, 2013 at 3.58 PM

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### **Re: Combining Text Analysis**

Peg Hart ofictionschware@yshos.come Rody To: Peg Hart «dictionsoftware@yshoa.com» To: Etias Assal «alia@tenghts utf.edu»

Dear Elias.

You can cite it as DICTION - The Test-analysis Program (http://www.dictionsoftware.com/)

Good luck with your project.

Thanks Peg DICTION Support

From Elan Antal 1984 (Artights of objefac Pog Hart indeterrationers) yokes combern: Wednesday, October 3, 2012 (1.12 Abl Salapest: Re: Conferency Test Analysis Rhenet are immed Thu. Oct 10, 2013 at 10:04 AM

Permission to Cite Research Report

Stephen Walker «Drephen Walkes@ass.etk» To Ekan Annal «ska@krights ucl edu»

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#1 rice to hear that you find the op, code measures useful in your MA thesis. You have my permission to cite the forecasting paper in questions. Good lack with your research.

Best withes,

5. Walker

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