PATHOS AND POLICY: THE POWER OF EMOTIONS IN

SHAPING PERCEPTIONS OF INTERNATIONAL RELATIONS

A Dissertation

by

J. MARK SKORICK

Submitted to the Office of Graduate Studies
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2005

Major Subject: Political Science

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ABSTRACT

Pathos and Policy: The Power of Emotions in Shaping Perceptions of International

Relations. (August 2005)

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Current approaches to foreign policy decision making and international conflict have ignored the role of emotions as variables influencing foreign policy choices. However, a growing area of political research suggests that emotions are of critical importance to many aspects of political life. Predominant foreign policy decision making models currently attend to either rational calculations or 'cold' cognitive processes and heuristics. These models provide little theoretical space for propositions about how enduring and intense emotions such as hatred and fear influence perceptions and interpretations of interstate conflict. In this paper we propose a model which addresses this deficiency in foreign policy decision making research. A theory of emotions is introduced and integrated into the existing research on foreign policy decision making. Hypotheses pertaining to the influence of negative emotions on information processing and choice in international relations are derived from the model and tested in a multi-method setting. Findings are reported and discussed within the framework of existing empirical research on process-oriented models of foreign policy decision making.

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Our eternal Father does not require my thanks, but I offer it now in humble recognition that all I have and am comes from Him. The struggles of a dissertation, life, and work are often over-whelming, "Without help it is too much for us. But there is One who has all power—that One is God. May you find Him now."

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INTRODUCTION

Let's not forget that the little emotions are the great captains of our lives and we obey them without realizing it. ~Vincent Van Gogh, 1889

It often seems that the study of international relations has somehow divorced itself from the passion to fundamental the struggles undertaken by states, people, and organizations to survive and achieve their goals. While the abstractions necessary to make generalizations about foreign policy and the relations between states often require analysts to "focus on the facts," the practice of doing so often leads researchers wondering how the vitality and vibrancy of hotly contested issues, for which some will even surrender their very lives, is drained away from the material in question. The desire to simplify a field of study which is, by its very nature, amazingly elaborate and complex, often leads students of international relations to ignore that which gives life to politics: emotion.

Consider the following scenario: This morning a student woke up to news of violent protests in the Middle East over US support of Israel. It seems that a number of innocent bystanders were killed when a grenade was tossed into market in Tel Aviv. The television relays graphic images of screaming men and women, a soldier rushing a bloodied child to an ambulance, a dazed and bandaged teenager sitting on a curb while

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This dissertation follows the style of *The American Political Science Review.*

chaos flows around her. The student presses the remote and switches the channel, pondering the merits of breakfast. A heated debate between two politicians is taking place on CNN. It is impossible to discern the nature of the debate as both politicians are speaking--nearly shouting—at each other at the same time. The moderator's feeble attempt to restore order is drowned out by a cacophony of two. The student switches the channel again. More 9/11 stuff. She turns the TV off, opting to not watch, yet again, the clip of that plane flying into the building.

Her appetite suddenly gone, the student drives to school, switching on the radio while she waits in traffic listening to frustrated drivers honk at the idiot ahead who has never learned how to make a left hand turn without a turn signal. The radio provides little respite. A meeting last night at the civic center erupted in argument as townsfolk, angry over the planned building of a Wal-Mart and the portent of job losses to come, denounced the city council in less than eloquent fashion, vowing to vote each and every one of them out of office. The news continues. Hurricanes have devastated several Caribbean islands. A group of senators in some remote state are vowing to block the nomination of a district court judge over his stance on abortion. Elsewhere, troops are being deployed; interviewed family members are stoically proud but obviously anxious. The US war in Iraq is discussed. Analogies are drawn to the quagmire of Vietnam and the internal backlashes of the 70s. Iraqi's are interviewed and the results are mixed. Some are hopeful. Many are angry.

The student attends her first class of the day, *Introduction to International Relations*, where she spends an hour and twenty minutes taking notes on a lecture about

general sources of international conflict. Levels of analysis are discussed. State and systemic causes are compared. She writes the words, "distribution of power," "rational," "hegemonic," and "cognition" more times that she cares to remember. A lively debate erupts over the merits of the current administration's policy in the Middle East, arousing her interest. But the professor is quick to point out that this class is about descriptive rather than normative characteristics of international relations. The lecture continues. More concepts, theories, data and abstractions.

That emotions are an important part of the human experience requires little proof. Classical references to the influence of emotions abound in both western and eastern literature and philosophy. The ever-present reality of dealing with an emotion such as anger or hate, and the consequences thereof, has been the source of countless admonitions and warnings against anger, hatred and resentment. "How much more grievous are the consequences of anger than the causes of it," noted Roman Emperor Marcus Aurelius. The Roman philosopher and statesman Seneca observed that "Anger, if not restrained, is frequently more hurtful to us than the injury that provokes it." Confucius is quoted as having said, "When anger rises, think of the consequences." Shakespeare noted that, "In time we hate that which we often fear." Modern warnings echo such ancient sentiments. 19th century physician and writer Anton Pavlovich Chekhov proclaimed that "Love, friendship, respect, will never unite people as much as a common hatred for something." Gandhi observed that, "A man who is swayed by negative emotions may have good enough intentions, may be truthful in word, but he will never find the Truth."

While the bulk of such adages admonish listeners against being overly consumed by emotional responses, all assume that feelings can have profound effects on social and personal experiences. From a scientific perspective, that emotions play an important role in the social interactions of individuals has been established through years of intense investigation among social psychologists. Furthermore, the idea that emotions impact the manner in which individuals understand and deal with problems has also produced a number of important findings. But what about the interplay of emotions and politics?

A perusal of recent international headlines provides ample evidence that, at least from a descriptive perspective, foreign affairs is often characterized by emotionally charged content:

"Iranian supreme leader predicts 'decades of hatred' of U.S. over Najaf" (*Agence France Presse—English*, 25 August 2004)

"Argentina outraged by U.S. official remarks" (*Deutsche Presse-Agentur*, 29 June 2004)

"Iraqi Kurdish official dismayed at US-UK draft resolution" (*BBC Monitoring International Reports*, 28 May 2004)

"Romanian president angered at Ukraine's opening of delta canal" (*Agence France Presse—English*, 26 August 2004)

"Furious Palestinians set Bush effigies ablaze" (*Agence France Presse—English*, 16 April 2004)

"Kosovo Serb Police 'infuriated' by arrival of Albanian colleagues" (*BBC Monitoring International Reports*, 1 May 2004)

"UN rights forum asks North Korea to admit expert, Pyongyang outraged" (*Agence France Presse—English*, 15 April 2004)

"Mauritius 'shocked' by British move on Chagos controversy" (*BBC Monitoring International Reports*, 9 July 2004)

"Mosque massacre fuels fires of hate" (*Daily Mail* (London), 8 April 2004)

"Iranians 'hate U.S. and Bush': army commander" (*Agence France Presse—English*, 31
August 2004)

"Palestinians angered by U.S. policy shift; White House silent on settlement plan"
(*International Herald Tribune*, 23 August 2004)

It has only been within the past decade that any serious attempt to understand how emotions such as anger, hate, compassion, and fear impact politics, with the handful of studies which have addressed this phenomenon focusing primarily on candidate evaluation. To date, few programs of scientific inquiry have attempted to discover how emotions impact the realm of foreign policy, and if so, explain what effects emotions have on foreign policy processes and outcomes.

In an article written in 1969, J. David Singer raised the importance of the phenomenological nature of political decision making. Singer suggested that the scientific study of international relations could not only be addressed by studies of systemic and state level variables, but also by analyzing and deciphering the manner in which individuals' perceptions and cognitions impinge upon the processes underlying policy planning and implementation. Similar approaches to the study of international affairs were suggested in articles written by Snyder, Bruck and Sapin (1962) and Hermann (1969b). In the past four decades, foreign policy decision making has become a burgeoning field of theoretical inquiry. Broadly speaking, this area of study has sought to decipher how decision-makers turn complicated international problems into manageable decisions.

While no single finding characterizes all of these approaches, they generally assume that (1) international decisions are made in an environment that is characterized by complexity, ambiguity, and uncertainty (Vertzberger 1990; Maoz 1990); (2) individual and group decision makers are internally and externally limited in their ability to process all of the information about this complex environment (Jervis 1968, 1976; Steinbruner 1974); and (3), as a result, decision makers resort to heuristics in order to simplify foreign policy problems and eventually make decisions.

The bulk of the research and findings of such scholars is impressive and growing (c.f. Hudson and Vore 1995). However, the thrust of this research has concerned itself with cognitions. What has been lacking is any systematic attempt at understanding how emotions influence foreign policy decision making. Implicit and overt assumptions about the role of emotion in foreign policy seem to ignore not only studies which suggest that emotions can have a wide variety of effects on decision making, but also the very real intuition shared by humankind that our emotional response to events can greatly impact evaluations and choices made on a daily basis. The decision making literature concerned with the development of foreign policy has generally taken a dim view on the effects of emotion on policy creation and implementation. Both conventional wisdom and academic conclusions suggest that "good" foreign policy is based on reason, whereas "bad" foreign policies are usually those influenced by emotion (Hammond 2000).

A recent review of the political science literature which has focused on the role of emotions in political studies noted that the vast majority of such studies have centered

on personalities or publics (Marcus 1988, 2000; Marcus and Mackuen 1993). The review suggested that the bulk of such research on politics and emotional factors dealt with explaining the eccentricities of certain leaders in dealing with political issues as well as public choice and commitment to political parties and candidates. The finding that international relations literature has rarely addressed the impact of emotions on foreign policy behavior is remarkable because the context within which international affairs are conducted is usually considered to be fraught with uncertainty, suspicion, danger, threat, and insecurity. In fact, the fundamental assumptions of Realism and Neo-realism rest on this depiction of the international environment. Furthermore, inherent within the study of international relations is the acknowledgement that certain conflicts between nations are far more intractable than others. Ethnic conflicts, religious grievances, enduring rivalries, and other such hostilities persist over time and with an intensity markedly different from other international disputes. Given the highly unpredictable and oftentimes erratic character of the international climate, as well as the historically repetitive nature of certain ethnic and religious conflicts of a particularly intense nature, the omission of emotional factors in scholarly attempts to describe and explain foreign policy behavior may very well be a conspicuous omission.

Negative emotions have not been specifically addressed within the international relations literature for a number of reasons (c.f. Crawford 2000). First, the primacy of systemic and state-level approaches, in conjunction with the broad reach of rational actor models, have held sway among scholars of international relations for a number of years. As a result, individual-level approaches to foreign policy analysis have not been as

prominent in the field. Second, as the field of foreign policy decision making has developed, it has primarily been concerned with resolving the debate between rational and cognitive schools of thought.

Third, within the cognitive school of foreign policy decision-making, the dominant approaches have emphasized intervening cognitive structures or contents—belief systems, political attitudes, images, cognitive complexity, operational codes, and the like—or cognitive processes—heuristic processing, attention, the impact of situational variables, framing, etc. The bewildering array of variables suggested as important to the understanding of foreign policy analysis has made political scientists skeptical of introducing new factors. Fourth, attitudes and beliefs have been modeled by both political scientists and social psychologists as already consisting of an affective or emotional component. That the study of belief systems and political attitudes has been an important area of foreign policy decision making research would suggest that there any need to address the role of emotions in international relations has already been met.

Fifth, and related to the last point, social psychological studies of emotions and social behavior, from which political scientists have consulted in the development of their own decision making theories, have suffered from a long standing difficulty in defining emotions, and thus reach anything resembling agreement on the interplay between emotions and cognitions. As will be shown, this problem has directly resulted from an attempt to merge two vastly different approaches understanding emotions and has influenced the attempts of political scientists to incorporate emotions in their own studies.

Finally, while we can acknowledge the importance of emotional responses in social and political interaction, international relations scholars are justified in asking how we might know emotions when we see them? In part a methodological and theoretical question, I will attempt to address this and other questions by outlining the development of the study of emotions from social psychology to political science. In the end I will suggest that problems with past approaches to this area of research have led to a confusion of theories surrounding emotions and hindered the incorporation of emotions in the field of international relations.

Within the context of foreign policy decision making, several questions about the role and importance of emotions require attention. Do we even need to address emotions in our analysis of foreign policy? Of what use is the study of affect or emotions important to our broader understanding of international relations? Given their importance, how do we go about analyzing emotions in a scientific and empirically valid manner? What theoretical frameworks exist which will allow us to understand these questions?

This paper suggests a framework for including emotions in studies of international relations and foreign policy decision making. It proceeds from the assumption that critical foreign policy decisions have an emotional component which, under certain circumstances, can markedly influence how individuals perceive, make sense of, and respond to international events. Focusing on negative emotions such as hate and anger, this study explicates several key assumptions about the nature of

emotions. Before further discussing the framework of this research program, there are two important caveats which should be stated at the outset.

The first caveat is that this study will focus on the effect of negative emotions. Since the study of international relations has been concerned with the nature and of conflict between states, a more direct relationship is assumed to exist between negative emotions (anger, hate, fear, etc.) and potentially conflictual foreign policy choices. This is, of course, not to suggest that other emotions do not impact the foreign policy decision making process. However, in focusing on the effect of negative emotions, this analysis will (1) limit itself to a single albeit important source of international conflict and (2) reduce the number of measures necessary to test appropriate aspects of the theory.

The second caveat deals with the unit of analysis. While a vast amount of research has attended to the analysis of decision making at the elite level (i.e. Cottam 1986; George 1969, 1980; Hermann 1976, 1977; Herrmann 1984; Holsti 1962, 1967, 1972, 1976, 1979; Holsti and George 1975; Janis 1983, 1989; Janis and Mann 1977; Jervis 1976; Vertzberger 1990; Winter 1992), the findings herein are considered to be generalizeable primarily at the public level.

There are at least two important criticisms which might be leveled at an attempt to generalize from the experimental findings reported here to the level of elite decision making. First, it could be argued that elite decision makers avoid showing emotions in public in order to reassure their constituents that they are able to adequately deal with intricate decision making problems in a rational manner. It may be the case the elites who display emotions publicly harm their chances of staying in office.

Howard Dean's Iowa concession speech in January of 2004, which was characterized by Dean loudly and energetically listing the states which his supporters would win, is one recent example of an emotional outburst which resulted in political harm to the leader. In Dean's case, his Iowa speech is seen by many as a pivotal turning point in his eventual failure to achieve the Democratic nomination (Gay 2004). In 1972, Democratic Presidential candidate Edmund Muskie held a press conference during which he appeared to break down in tears while accusing a newspaper of defaming his wife's reputation. As with the Dean outburst, Muskie's public display of emotion is cited as the reason he lost the Democratic nomination. As William Schneider on CNN's "Inside Politics" (1/22/04) noted of the Muskie incident, "A man crying? How unpresidential."

Second, rather than being effected by emotional incidents within the foreign policy environment, it is possible that in fact leaders are skilled in using emotions to advance their own political agendas by arousing anxiety, anger, or fear among their constituencies. In 1988 the Bush campaign was accused of using this tactic by running an advertisement which accused rival Dukakis of giving weekend passes to convicted murderers. The ad, which focused on the African American William Horton, was denounced by opponents as a deliberate attempt to connect fear and racial anxiety to the Dukakis campaign. Most recently, US President Bush and British Prime Minister Tony Blair have been accused of inciting fears that state sponsors of terrorism, such as Iraq, also were in possession of weapons of mass destruction. Critics charged that both administrations played on fear, as well as anger associated with the World Trade Center

attacks of 2001, in order to justify war against Iraq. As one observer has noted, "With today's politicians, of both parties, we can't help wondering if they ever had a genuine emotion, one not carefully shaped and molded and placed before the public for political purposes, in their lives" (Bowman 2002).

It should be noted however that this caveat is not meant to suggest that elite decision makers necessarily differ from the general public in terms of the form of emotional responses available to them as pertaining to foreign policy events. The suggestion here is that, in regards to the findings reported within this research program, the generalizability is restricted to the level of the general public.

The subsequent sections set forth the framework of a research program designed to address the question of how emotions influence foreign policy. More precisely, working from extant literature across several disciplines and utilizing a multi-method approach, this study will attempt to develop a model which describes how negative emotions influence the interpretation and processing of important foreign policy events. Beginning with a review of the literature relevant to the study of emotions in foreign policy decision making, including the study of affect in social psychology, and pertinent research from the field of international relations, a general theory will be proposed. The theory will explicate the relationship between emotion and cognition and their interactive effect on foreign policy decision making process and choice.

The fourth section of this work will consist of a discussion of the hypotheses suggested and a framework for testing them. Included here are relevant discussions related to the specific methodologies to be used. Following this section, the design of

two separate experimental studies will be presented, as well as the statistical tests of these results and pertinent discussions. Prior to the concluding section, a case study is described which attempts to expand the previously discussed experimental findings to the context of real world events.

The program suggested here attempts to deal with what is seen as a glaring absence in the study of foreign policy decision making, namely, the role of emotional factors. The study of cognitions related to foreign policy questions has led many to conclude that what people think or believe is important. That being said, I propose that what they feel is important as well. While arguments might be raised that organizational and bureaucratic mechanisms hinder any influence of emotions on international relations, or that leaders and other 'experts' are less influenced by emotional factors and more interested in rational, cost-benefit calculations and interest maximization, or even that the diplomatic corps exists solely to offset the vagaries of the emotional experience in international relations, I find it difficult to throw out a fundamental component of the human existence (and unquestioned in other fields of social inquiry) in explaining critical decisions of war and peace. My hope is that this study will contribute to an interest in the field of emotions as they impact international relations, and that in the course of this study and others to follow, new techniques will be developed to overcome the many obstacles faced by those interested in how emotions affect foreign policy decision-making.

LITERATURE REVIEW

DEFINING EMOTION

Recent advances in the study of emotion suggest that our current understanding of this intricate phenomenon only hints at the potential influences of emotion on cognitive and sociological behavior. A sample of these studies suggest linkages between emotion and memory (Blaney 1986), perception and attention (Zajonc 1980; Halberstadt and Niedenthal 1997; Ito et al. 1998; Niedenthal et al. 1997), attitudes (Cacioppo and Gardner 1999; Matsumoto 1993), decision-making (Damasio 1999; Forgas 1990, 1994, 2000; Schwarz and Clore 1996; Bodenhausen 1993), interpersonal relationships (Gardner 1999; Collins 1996), and intergroup relationships (Fiske 1981; Bodenhausen 1993) to name but a few.

Like sailors observing the surface of an iceberg while understanding that much more lies hidden under the water's surface, so to do researchers of emotion grapple with the potential impact of their subject on vast areas of the human experience. By far the most troubling fact facing researchers of emotion is the difficulty in defining the phenomenon (Young 1973; Fantino 1973; Chaplin and Krawiec 1979). Regardless of this longstanding difficulty, some consistencies have been noted across the numerous attempts to define emotion.

Lazarus and Lazarus (1994) note that most definitions of emotion are characterized by three components: some physiological change, an inclination towards some behavior or action, and a subjective, felt experience. Some studies, most notably

the work of Ekman (1992, 1994, 1999), emphasize the existence of basic emotions (e.g. fear, anger, sadness, disgust) that differ markedly from each other in terms of behavioral responses, physiology and other characteristics. Kleinginna and Kleinginna (1981) analyzed 92 definitions of emotion and concluded that most were vague and lacking consistency. Attempting to synthesize the research they reviewed, the authors suggested a definition of emotion which emphasized "a complex set of interactions among subjective and objective factors, mediated by neural/hormonal systems which can (a) give rise to affective experiences such as feelings of arousal . . . (b) generate cognitive processes . . . (c) activate widespread physiological adjustments . . . (d) lead to behavior that is often, but not always, expressive, goal directed, and adaptive (ibid:355). Beyond these summations, broader characterizations of emotion emphasize basic cognitive, biological, and behavioral components (Crawford 2000). Above all, definitions of emotion suggest a marked change from some behavioral, biological and phenomenological norm. An emotional state is deemed "abnormal" insofar as it departs from one's normal physiological state of existence (Lyons 1999). Such physiological changes and accompanying states of subjective feeling are viewed as integral parts of the emotional experience (ibid; Lewis and Granic 1999).

A wide range of emotional effects have been discussed in the psychological and sociological literature. The evidence indicates that emotion reduces the analytical processing of information and increases the reliance on the use of heuristics cues and simplifying approaches (Hamilton et al. 1993; Mackie and Hamilton 1993). Strong emotions within the context of foreign affairs can affect the manner in which decision

makers evaluate and sort through information pertaining to important international events. Vertzberger (1990:326-327) notes that "...knowledge that is embedded in traumatic historical events, that contains a strong affective element, and that becomes a source of central beliefs is immensely difficult to refute or falsify. It *encourages a continuing search for validating evidence* [emphasis mine] and has stereotypic effects with regard to the expected behavior of other actors."

Emotional responses can provide information to decision makers as well as to those observing them. Emotions inform decision makers as to the conflictual or peaceful nature of a situation (Schwarz and Clore 1988, 1996). On the other hand, an emotional response can be incorporated into a larger evaluation of another. Lodge and Taber (2000) suggest that affective tags are added to overall appraisals of others and contribute to judgments in the same way that any other piece of information might be used. Hermann et al. (1982) propose that affect functions as an indication of personal and official attitudes towards other actors, and can provide indications of intent: direction of behavior (positive or negative) and intensity.

Understanding the specific neurological and physiological processes associated with threat perception are now viewed as important components of emotion (Gray 1999). More recent advances in neuroscience have allowed researchers to study the specific brain centers associated with emotions such as anger, fear, and sadness (Rolls 1999; LeDoux 1996; Gray 1987, 1999; Damasio 1999). Important advances along these lines have led current theories of emotion to emphasize a combination of cognitive and physiological processes in explaining and describing the structure and effect of emotion

on decision making. As a result, more recent theories of emotion have begun to suggest that similar physiological and phenomenological responses in the presence of an emotional stimulus that are consistent across individuals and cultures, resulting from biologically adaptive functions (Lewis and Granic 1999). The work of neuroscientists such as Damasio (1994, 1999), Bechara (Bechara et al. 1997) and others (c.f. Adolphs 1999; Adolphs and Tranel 1999) have revolutionized how political scientists, psychologists, economists and sociologists have had to conceptualize emotion.

Damasio's seminal work on the neuro-biological foundation of human emotion and reason has focused on the relationship between cognitive representations of the environment and emotions. Namely, his work has shown that emotional responses to external (i.e. environmental) events are neurological and physiological patterns of nerve cell activation. More specifically, by examining the behavior of individuals with damage to the emotion-centers of the brain, Damasio and colleagues have shown that emotions are essential to rationality. The inability of such individuals to offer emotional responses to their environment inhibits their inability to act appropriately or perform certain judgment and planning tasks. Much of the recent work on emotion across disciplines, including this study, has been influenced by this cognitive neuro-physiological approach to emotion.

Psychology

Recent neurological discoveries in the study of emotion not withstanding, the bulk of the work in this area has been done by psychologists across all sub-disciplines.

Two general trends of research on emotions have developed within the field of psychology: those which approach emotion as a physiological/neurological phenomenon, and those which approach in as an attitudinal phenomenon. Simply put, among these studies the former tend to characterize emotion in terms of arousal, while the later tend to characterize it in terms of a valenced structure (e.g. like/dislike).

Emotions as "Emotion"

Within the field of psychology, the development of the study of emotions has generally followed two different lines of research. The prominent psychologist William James was one of several pioneers arguing that emotions were primarily a physiological phenomenon (1884, 1890). According to early theorists like James, emotions such as fear, anger, sadness and joy were correlated with specific physiological reactions (Leventhal 1980). Early theories of emotion focused on autonomic feedback as constituting emotion—physiological responses told us what we were feeling (James 1890; c.f. Fiske and Taylor 1991:415).

Though further refinements within this line of research found flaws in much of these early studies, body reaction theories or central neural theories (Cannon 1927) repeatedly emphasized the link between subjective feeling states and autonomic physiological arousal. Cannon (1927, in Leventhal 1980:145) claimed that emotions resulted from central neural activity. Schachter (1964, 1971; Schachter and Singer 1962) proposed a variant of the central neural theory which suggested a two-component process of physiological arousal and cognitive interpretation, whereby which "Visceral activation provides the intensity and particular emotional feel of the experience, while

evaluative cognitions provide the quality of differentiated emotional experience" (Fiske and Taylor 1991:423). A common underlying assumption of these research program is that emotions exist as a system distinct from cognitions (Moreland and Zajonc 1979; Leventhal 1980; Murphy et al 1995) and arising from independent processes (c.f. Marcus 2000) but mediated by cognitive activity (Fiske and Taylor 1991).

The emphasis on diffuse emotional response resulting from physiological changes has led researchers to propose a number of effects on decision-making and information processing. For example, Bodenhausen (1993) finds that the physiological changes accompanying emotions such as anger and anxiety disrupt decision-making performance, resulting in heuristic-oriented information seeking strategies and a reduction of cognitive capacity. Such an approach is compatible in many areas with studies suggesting that emotion serves as a form of information to individuals, and that emotion in fact enhances the ability of individuals to extract information from stimuli (Schwarz and Clore 1988, 1996; Halberstadt and Niedenthal 1997).

Emotions as "Affect"

In contrast to the 'separate systems' (Zajonc 1980, 1984, 2000) approach to emotion, many social psychological studies of attitudes have tended to view emotions as one element within the attitudinal structure (Fiske and Taylor 1991; Russell 1980). Marcus (2000) notes that this approach has attempted to provide a cognitive explanation of emotion. This research has modeled attitudes as consisting of three interrelated components: affect, cognition, and behavioral inclinations (Fiske and Taylor 1991; Eagly and Chaiken 1998). Beliefs that another is evil, good, kind, etc. fall within the

cognitive component of attitudes. Feelings of like or dislike (a valenced structure) fall within the affective component, and inclinations toward hostility or cooperation within the behavioral component (Fiske and Taylor 1991). Taken together, these distinct yet interrelated elements characterize the evaluative nature of attitudes. At their basis, definitions of attitudes have focused on their evaluative nature (Fiske and Taylor 1991; Fishbein and Ajzen 1975; Eagly and Chaiken 1998; Pratkanis 1989).

Within the attitude/valence line of research, attitudes and emotions are closely intertwined, as illustrated by Eagly and Chaiken's observation that, "Attitudes express passions and hates, attractions and repulsions, likes and dislikes" (1998:269). Affect is related to preference/liking, and is thus related to approach and avoidance inclinations (Leary 2000: 332). Brewer and Kramer (1985) note that "The affective component is best represented in the shared feelings of acceptance-rejection, trust-distrust, and liking-disliking that characterize attitudes toward specific groups in a social system." Two important results of this approach to understanding emotion have been in how these theories view the both the nature and structure of emotion.

As a component of attitudes, the emotion as affect approach suggests that emotional responses are generated from *cognitive appraisals* (Weiner 1985; Roseman et al. 1994; Lazarus and Lazarus 1994; Ottati and Wyer 1990; Parkinson and Manstead 1992), and that two-dimensions, valence and intensity, best account for the structure of emotion (Plutchik and Conte 1997; Larsen and Diener 1992; Russell 1980; Remington et al. 2000).

It is clear that the two approaches to understanding emotion rely on vastly differing assumptions about the nature and structure of human emotional response. While neither approach is mutually exclusive, and in many cases compatible, the important effect insofar as this research program is concerned lies in the effect that these two discrepant approaches have had on the study of emotions within the political arena.

Political Science

A consideration of emotion as a variable within the realm of politics is by no means a new idea. Marcus (2000) notes that most of the classical political thinkers, including Aristotle, Plato, Hobbes, Descartes, Hume and Smith found it important to address the role of emotion in understanding human nature and politics. As Crawford (2000) notes, Thucydides clearly defines the role that fear played in the war between Athens and Sparta. A similar emphasis on fear and threat can be found within much of the realist literature on foreign policy, arms races and deterrence (Morgenthau 1967; Waltz 1967; Wallace and Suedfeld 1988; Intrilligator 1982; Intrilligator and Brito 1989; Richardson 1960).

Much of the uncertainty characterizing political science's approach to emotion has been mirrored by the confusion found in psychological research. In the same way that psychologists have drawn parallels between emotions and beliefs or attitudes, so to have political scientists looked at emotions in light of political attitudes and beliefs. As some psychologists have argued for a physiological emphasis on emotional response, Marcus and his colleagues have also begun to stress the importance of physiology in

threat assessment and candidate evaluation (1988, 2000; Marcus and Mackuen 1993; Marcus et al. 1998; Mackuen et al. 2000). The theoretical distance and confusion between studies which have emphasized emotion as an attitudinal component, and those which have stressed emotion as physiological and neurobiological function only mirrors the long-existing confusion in the psychological study of emotion. Generally speaking, these two related and interdisciplinary schools address affect (attitude/valence) in the first case and emotion (physiology/arousal) in the latter case. In order to develop a model which explains how emotions impact foreign policy decision making processes and choices, both approaches emotion must be taken into consideration.

Emotions have been indirectly addressed in the foreign policy decision-making literature. One could suggest that the first studies of emotion were those dealing with the effects of stress on decision-making and studies of attitudes or beliefs. Since the 1960s a great deal of attention has focused on the effects of stress in political decision making and crisis (Holsti 1972, 1979; Hermann 1972; Lamb 1989; Mor 1993; Roberts 1988). The majority of these studies defined stress in such a way as to emphasize the relationship between time pressures, goal commitments, and decisional performance, rather than emphasize any emotional component of the crisis situation. It can be argued, however, that these studies implied an emotional component of international decision making behavior. Janis and Mann's (1977) discussion of 'hot cognitions' (c.f. Herek et al. 1987; Abelson 1963) acknowledged that emotional arousal associated with critical and stressful decisions compelled decision-makers to undertake sub-optimal problem solving measures. Herrmann (1984, 1988) argues that perceived threats and

opportunities correspond to the affective notions of like and dislike, exerting pressure on subjects to act and define a situation in a certain way. Increases in the degree of felt threat and opportunity correspond with the use of simpler images (more enemy or ally). Imagery "The more intense the affect becomes, the more stereotypical the cognitive schema will be, and, in turn, the more predictable the policy choice" (Herrmann et al. 1997:555). In times of stress, cognitive performance can be dramatically affected by emotional states, and result in diminished cognitive complexity, a decrease in the individual's tolerance for ambiguity and ability to evaluate information, and hamper the evaluation of alternatives (Vertzberger 1990; Hermann 1972; Holsti 1972).

Emotions or feelings have also been either directly or indirectly addressed in the research focusing on political attitudes and beliefs. These include studies of belief systems and operational codes (George 1969; Holsti 1962, 1967, 1976; Walker 1977; 1983) and images (Herrmann 1988; Herrmann et al. 1997; Cottam 1986, 1994; Hudson 1995). Rather than suggesting a direct effect of emotions on foreign policy behavior, these models imply that actor-oriented beliefs and attitudes include affective evaluations of and orientations toward other nations or leaders. Thus, Dixon (1983), Hermann et al. (1982) and Hudson et al. (1989) conceptualize affect as a reflection of governmental attitudes toward another object.

The role of emotions has also been a subject of some focus within the broader study of political science. The affective elements of political attitudes (Brady and Sniderman 1985; Sniderman et al. 1991), emotional responses to political issues (Conover and Feldman 1986; Kinder and Sanders 1990, 1996), and the emotional

character of national patriotism have received attention in the literature (Rahn et al. 1996). Gibson (1992), Gibson and Bingham (1982) and Marcus et al. (1998) have also addressed political intolerance as a form of emotional reaction. Lodge (1995; Lodge et al. 1989; Lodge and Taber 2000) notes that the affective tag is an inherent feature of political candidate evaluation and biases voters' judgments toward or away from that candidate.

Departing from the focus on attitudes and emotions, the research of Marcus and colleagues (Marcus 1988; Marcus et al. 1998; Marcus and MacKuen 1993) has emphasized the physiology of emotion and has stressed the need to understand the interplay of emotion and politics in light of neural and biological research. Marcus and colleagues suggest a dual-channel model of emotion characterized by two emotionality systems: a threat-attendant system and an enthusiasm generating system. The threat attendant system monitors the environment and creates feelings ranging from safety to anxiety. The mood state system monitors current behavior and successes to generate feelings ranging from depression to enthusiasm. According to this model, negative events increase attention and emotional reactions are crucial in the stimulation of attention (Marcus and Mackuen 1993: 673).

EMOTIONS: EVENT INTERPRETATION AND INFORMATION PROCESSING

As noted earlier, the focus of this study will be on the development of a model of decision making which incorporates emotions. Just a brief review of the literature in

question would suggest any number of areas upon which emotions might have an important impact. The study of foreign policy decision making has attempted to focus on those variables which influence the formulation of foreign policies by attempting to describe and explain how decision makers make sense of and respond to a constant stream of complex information about international events. Taken as the unit of analysis, the decision maker is viewed as the "system" which transforms inputs through varying processes into policy outputs (Snyder et al. 2002). How inputs become policy choices has been a focal point for much of the decision making literature, with competing schools of thought emphasizing cognitive processes, cybernetic or rational behavior, or organizational and bureaucratic structures of process and/or outputs.

It should be self evident that the emotional nature of hotly disputed foreign policies would be a prime area in which we might find evidence of the influence of emotion. As De Rivera (1984: 122) notes,

> With all of his various interests clamoring for recognition and a number of important emotional relationships demanding attention, the person does not make a choice as much as he supervises some very active processes. In order to act, he must take the reality of the situation that confronts him and *give it meaning* that both fits the objective structure of the situation and meets his interests and emotions.

De Rivera's statement provides an important and significant point of emphasis for a development of such a theory. How do individuals give meaning to, or make sense of, the various pieces of information relating to foreign policy? As will be discussed in more detail in the following section, it seems prudent to adopt a model which incorporates the notion of some interaction of cognition and emotion on such processes. As Zajonc et al. have suggested, "The interaction of affect and cognition is the interaction of the

associative network of the particular affect and the associative network of the particular cognition" (1982: 217). Their comment echoes further developments already noted in the field of emotion which emphasize a dual relationship between cognition and feeling states. Such an approach to emotion as an independent variable on decision processes leads the researcher to view it as an important internal variable which helps individuals makes sense of reality. In sum, emotion is not only information which is used as "heuristically relevant information" (Schwarz and Clore 1988:48), but it should be treated as a separate process. Zajonc clearly notes such an approach by stating that, "Emotions are not representations of reality, but they are reality" (Zajonc 2000: 47).

In sum, if we take to heart Tetlock's (1983) opinion that ""The fundamental diagnostic dilemma of international relations is one of motivational attribution: determining the intentions (likely future conduct) of particular other states" it would seem wise to develop an approach to decision-making which goes beyond the current approach within the foreign policy literature of acknowledging an emotional effect of stress and/or threat while attempting no serious empirical development of how emotions influence the interpretation of foreign policy events and processing of foreign policy information.

MODEL[*]

If emotions are conceptualized as a system which interacts with the cognitive system, then foreign policy behavior can be framed as an interplay between stimuli, cognitive, and emotional systems. While emotions in previous research have often been associated with arousal, they are also associated with cognition. Emotions participate in the experience of social phenomena as expressions of a cognitive and physiological interaction.

The definition of emotions proposed here takes into account the total interplay of these factors: Emotions are responses to external stimuli which are perceived to impact an individual's well-being (as defined by the self or primary group). These responses are characterized by phenomenological, physiological, and behavioral properties and in turn are associated either directly or indirectly with structures within the cognitive system. The aggregate properties (phenomenological, physiological, behavioral impulses) of emotions become labeled experiences (anger, joy, hate, fear) connected directly to event-specific objects (e.g. other individuals, groups, states, organizations, or institutions). They are indirectly connected to these objects via a post-hoc cognitive/evaluative tag called 'affect.'

[*] Geva, Nehemia, James Mayhar and J. Mark Skorick, "The Cognitive Calculus of Foreign Policy Decision Making: An Experimental Assessment" *Journal of Conflict Resolution* (Vol. 44, No. 4) pp.447-455, copyright 2000 by Sage Publications Inc., Reprinted by Permission of Sage Publications Inc.

THE LONG TERM EXPERIENTIAL SYSTEM (LoTES)

The hypotheses to be tested in this research program are derived a model which explains how cognitions and emotions interact to influence information processing. The Long Term Experiential System (LoTES) model represents the two independent yet interactive systems of experience used by individuals to make sense of the world. It is a "long-term" system because it comprises emotions and cognitions about the world which are not ephemeral or transient in nature, but stable over time and thus accessible when events in the external environment demand interpretation. It is an "experiential" model because it consists of an important bank of "experiences" which help individuals make sense of their world. The use of this term is intended as a double-entendre, both in reference to the existential experiences of one's history and knowledge (i.e. cognitive) and in reference to those internal physiological "experiences" (associated with ANS responses) which we label emotions. Finally, it is a system because it consists of two inter-related systems—the cognitive and emotional—which provide the conscious and "unconscious" backdrop into which information about the world arrives, is sorted, interpreted, and used to make decisions. Before elaborating on the LoTES model, a few words about the underlying assumptions of the model should be more clearly specified at this point.

First, emotions are an inter-related system of feeling states which exist independently of cognition. However, the emotional system (ES) is highly connected to cognitive and physiological structures. This is what might be referred to as the "existential assumption": emotions are experiences which we consider to be emotions

once they are labeled as such. However, as emotions, they exist prior to the cognitive activity of labeling them. Thus emotions are not wholly reliant on cognition (though there is evidence suggesting that they are reliant upon neurological antecedents, c.f. Damasio 1994, 1999; Damasio et al. 1990; Bechara et al. 1997). The assumption that emotions, as experiences, exist independently of cognitions is compatible with much of the current research on emotion (Zajonc 1980; Zajonc et al. 1982; Marcus and MacKuen 1993).

Second, as Ekman (1992, 1994, 1999) notes, there exist a number of basic and distinct emotions which differ from each other in terms of their appraisal, antecedent events, behavioral and physiological responses, as well as other characteristics. These basic emotions can be considered to comprise "clustered feeling states" within an individual's LoTES.

Third, this study concurs with the work of Marcus and colleagues that one of the key functions of the emotional system, particularly as it relates to foreign policy, concerns threat identification (Marcus 1988; Marcus and MacKuen 1993). This approach is further compatible with a number of findings which stress the importance of emotion as a monitoring mechanism (Zajonc et al. 1982).

Fourth, "felt" emotions are reflections of the activation of an emotional system and as such serve as valuable information to decision makers and individuals. This assumption is congruent with the work of Schwarz and Clore (1988) which suggests that individuals use feelings as "heuristically relevant information" (*ibid*:48).

Fifth, a strong tendency exists for individuals to maintain harmony between cognitive and emotional systems (Heider 1958; Herrmann 1988; Murray and Cowden 1999).

Sixth, and lastly, emotion and affect are two separate yet related ingredients of the decision making recipe. As will be noted below, and as has been alluded to in the previous section, the evaluative component of cognitions relating to some stimuli is considered to be that which much of previous social psychological and political science research has termed "affect." As a result, it is consistent within this assumption to hold that an affective (or evaluative) component of a schema or image could be construed as a valenced tag, such as found in the research of several others (Dixon 1983; Lodge 1995).

Figure 1. Cognitive and Emotional Systems
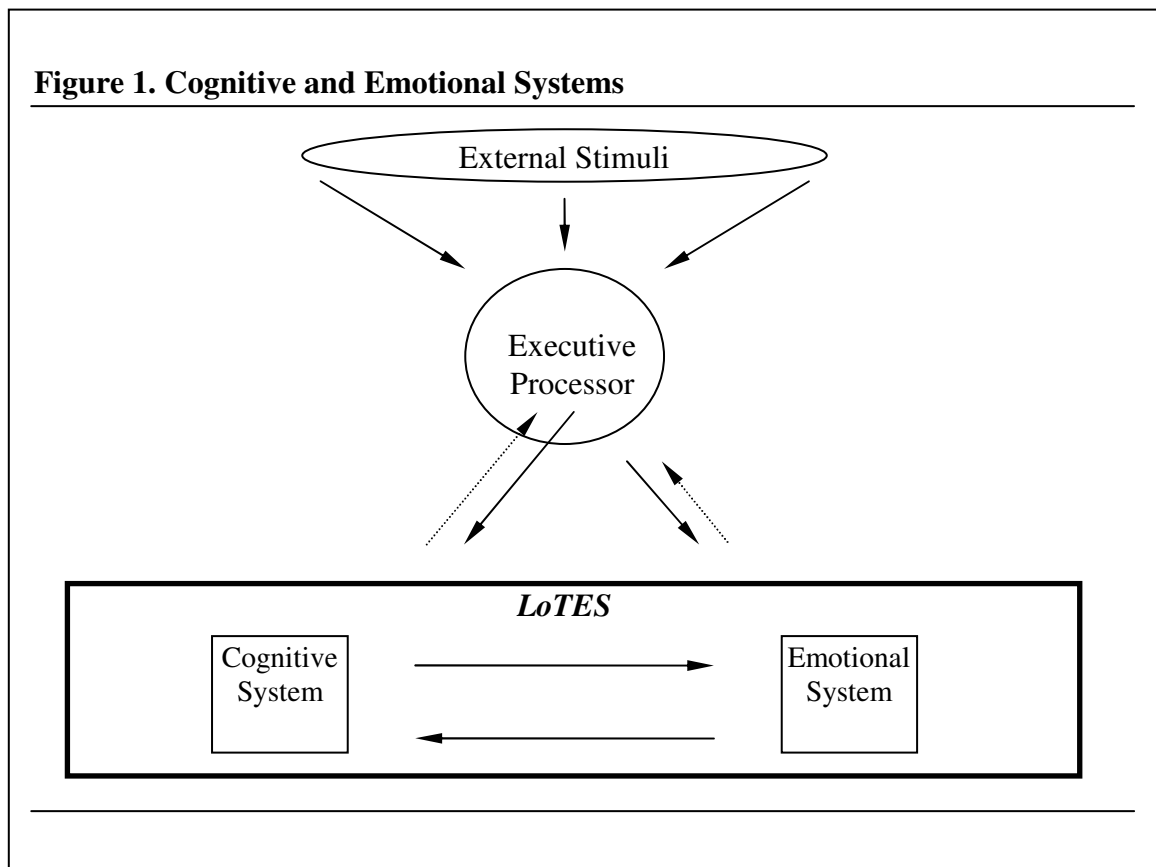
The LoTES of individuals is comprised of two systems of representing environmental stimuli: The Emotional System (ES) and the Cognitive System (CS). As Figure 1 shows, external stimuli can impact both the emotional and cognitive content of problems undertaken by a decision maker.

Conversely, the LoTES can also influence the character and quality of the problems addressed by a decision maker. While the contents of the executive processor are cognitive (who/what the problem is) and emotional (how I feel about it), the type of contents and capacity for such may be further influenced by emotions.

Figure 1 consists of three important components which will be discussed in further detail: 1) external stimuli such as changes in the international environment or event-generated signals indicating some potential change, 2) the Long Term Experiential System, or LoTES, which represents both the content and interaction of emotions and cognitions, and 3) the executive processor which represents the decision maker's current cognitive and emotional content as well as the capacity for such.

Frijda (1988) notes that emotions are most often elicited by certain types of events. An event-oriented approach to foreign policy analysis was first suggested by Hermann (1969b). More recent studies focusing on the properties of the foreign policy situation, and the placement of important variables within the situation or event, suggest that the perception of events influence decision processes and outcomes. Hudson et al. (1989:117) note that "As the [decision maker] sorts out who is doing what to whom and where it stands in relation to the other players . . . a predisposition for a certain type of foreign policy behavior . . . will arise from the requirements of the situational context."

Studies focusing on the effects of crisis on decision making emphasize the perception of certain actions as factors leading to predictable processes and outcomes (cites).

The model therefore begins with the idea that decisions often result from some external stimulus. The stimulus (or event) exists within the context of a situation (Hermann 1969b). The most salient situation to students of foreign policy decision makers is that which might lead to a decision for war or peace. As a class of phenomena, these situations or events, can be measured by a number of variables: the qualities of the main actors, the types of actions taken, the intensity of actions taken, the potential for important goals to be achieved or thwarted, the quality of present and past relationships among actors, the number and quality of possible responses to the event (assuming that an infinite number of responses is unlikely and improbable), the amount of time available to respond, the distribution of relative power among actors, etc. International events can thus be characterized by a number of characteristics.

The principal components of the LoTES model are 1) a cognitive system, 2) an emotional system, and 3) an executive processor analogous to the working memory concept of social and individual psychology.

Cognitive System

Within the Cognitive System (CS) we find clusters of information such as schemata, images, beliefs and attitudes. Schema or images of other actors in the international system allow decision makers to ascertain the values, interests, motivations, strength and weakness, and friendliness or hostility of other nations (Fiske and Taylor

1991; Herrmann 1988; Herrmann et al. 1997). Perceived actor qualities such as cultural similarity and relative power capabilities incline decision makers towards certain inferences about the intentions of other actors, which in turn predisposes them towards certain policies.

The study of images in international relations has suggested that decision makers use clusters of knowledge, or images, to represent, to categorize, make inferences, and draw conclusions about a nation and its leaders (Cottam 1994; Herrmann et al. 1997; Herrmann 1988; Jervis 1976; Rosati 1998). The "enemy" image or schema has received considerable attention in the literature (White 1966, 1968; Holsti 1967; Cottam 1977; Cottam 1994; Herrmann 1988; Herrmann et al. 1997; Rothbart and Hallmark 1988; Sande et al. 1989). For example, a decision maker who perceives another nation to be an enemy may conclude, even prior to any triggering action, that they have evil intentions, imperial or hegemonic interests, hide domestic weaknesses through international posturing, and a leadership capable of executing complex, sinister plots (Herrmann 1988; Herrmann et al. 1997).

Affective tags are attached to many of these cognitive structures. In line with the previously discussed literature on attitudes, affective tags are the evaluative attachments to cognitions about other objects such as "I like," or "I dislike." Lodge (1995) notes that the cognitions of individuals about political candidates are imbued with an affective or emotional value. Similarly, the cognitions of individuals about other nations carry an emotional element. In an early work, Boulding (1959) noted that emotions were an integral component of decision makers' images of other nations. He defined an image as

"the total cognitive, *affective*, and evaluative structure of the behavior unit, or its internal view of itself and its universe" [emphasis mine].

The LoTES model suggests that affect is thus part of the CS and is tied to the cognitive representation of the object in question. The accumulation of experiences with another nation can therefore lead to the development of a general affective or evaluative tendency. Hudson, Hermann and Singer (1989:121) define this tendency as an "affective prior history" which represents the "accumulated manifestations of affect in previous interactions that the actor has expressed toward a relevant other, and has received from it." As Vertzberger further notes, "A state's previous unfortunate experience with a type of danger can sensitize it to other examples of that danger" (1990:470).

Emotional System

The ES consists of clustered and inter-connected structures of discrete or basic emotions which are binary in nature (either 'on' or 'off'), hard-wired to rapid changes in physiological state, and marked by behavioral impulses or routines ("fight or flight"), and an experiential state of being, or "feeling." In keeping with the work of Marcus and his colleagues, the emotional system is particularly sensitive along the lines of two dimensions: threat/safety or success/failure.[1]

The ES and CS work in tandem (Zajonc et al. 1982; Matthews and Wells 1999). The ES is activated by situational cues and connected to schematic (i.e. cognitive) structures. The emotional system is actively sensitive to stimuli which might require activation of "flight/fight" routines (e.g. threats to bodily harm). Such stimuli can be

activated by external cues or by reference to schema or images associated with experienced episodes of similar emotions. Emotions not only provide critical identification signals to the perceiver (Schwarz and Clore 1988) about the state in which they find themselves, but the information which individuals glean from the environment in turn influences the quality and character of the emotional response.

The ES is highly sensitive to negative affect and particularly threat cues from such objects (Marcus et al 1998). Once such cues are encountered, affective tags attached to schematic objects (such as enemies), and linked to structures within the ES, trigger appropriate cognitive and emotional procedures and supply necessary content (cognitive and emotional) for further action. This includes drawing into the Executive Processor schematically and emotionally congruent information culled from the cognitive system or more actively from the environment.

Executive Processor

This structure is generally conceptualized as a system for actively storing and processing information relevant to complex tasks such as problem solving and decision making (Baddeley 1986; Cantor and Engle 1993; Just and Carpenter 1992; Shallice 1982). The executive processor has been construed as a *limited* capacity system for dealing not only with decision making tasks, but also, with difficult, novel or dangerous situations, or those in which habitual responses might be enacted (Shallice 1982). The critical characteristics of the executive processor are its capacity and its contents. Thus, as the "holding tank" and working area for current decision making information and

tasks, the items within the executive processor hold particular relevance for decision makers.

LoTES: HOW THE MODEL WORKS

The LoTES model allows us to understand how emotions impact foreign policy behavior by reflecting findings which suggest that negative or threatening emotional stimuli receive more attention (Marcus and MacKuen 1993; Derryberry 1991; Pratto and John 1991), provide critical information to perceivers (Schwarz and Clore 1988) and result in sub-optimal and heuristic-driven information processing strategies (Janis and Mann 1977; Bodenhausen 1993). Emotional units associated with an event are labeled and linked to previous information relevant to the event via the cognitive system (e.g. affective tags); Cognitions associated with an event are 'colored' or experienced with aid from the emotional system, which fires appropriate emotions based on links to characteristics of the event. Both systems are cross-supportive and can be 'fired' by input from the other. Given the assumption that both emotions and cognitions also arise out of external stimuli or events (Frijda 1988), we have a triangular relationship.

When individuals are faced with a political problem that generates an emotional response, the LoTES model proposes that negative emotions constrain the (1) content and (2) capacity of process items placed in the executive processor in dealing with that problem. Emotions have a "thematic" effect on the types of items drawn into the executive processor in the process of interpreting events. Few—and emotionally congruent—items are drawn from the cognitive system into the executive processor.

The presence of few and relatively homogeneous clusters of information being used results in biased interpretive processes which are generally consistent with appropriate schema or images (e.g. the use of stereotypes). Similarly, the use of few and simplified pieces of information influences the processing of information. Since individuals tend to process information in an on-line manner (Geva and Skorick 1999; Geva et al. 2000; Lodge 1995; Lodge and Taber 2000; Lodge et al. 1989), these effects of emotions result in fewer items of information accessed, less time spent reviewing information, greater attention to affectively consistent items of information, and higher recall of such items.

If emotions have a "thematic" effect on the types of information used to make a decision, the same is not held to be true for negative affective states. The affective state of individuals is purely dependent upon negative cognitions surrounding a decision making task. Negative affect results from negative cognitions about another actor or situation. As noted above, cognitions about foreign policy actors and actions can carry what have been referred to in the literature as "affective tags" (Lodge 1995; Lodge et al. 1999; Taber 1992, 1995). Such tags are often modeled as "like" or "dislike" evaluations associated with cognitive images, but they are not emotions.

As negative information about an actor (external stimuli) is perceived and placed in the Executive Processor, it is evaluated and incorporated into the CS (images are updated or confirmed, for example). Recall that the part of the job of the ES is to evaluate the current level of threat in the environment (Marcus 1988, 2000; Marcus and Mackuen 1993; Marcus et al. 1998). At the same time, the ES has already taken note of

the information in that it is "aware" of its existence in the CS. As more and more negative information arrives into the Executive Processor, the CS is able to adequately update cognitions surrounding the situation and make sense of the environment.

Assuming a constant stream of negative information, it is theoretically plausible for the ES to go on high-alert and begin the thematic restriction on information drawn into the Executive Processor. Thus the relationship between affect and emotion is continuous; however the effect of the thematic restriction resulting from an emotional response has a non-linear effect on the types and quantity of information used thereafter. Regardless of whether the shift from negative affective evaluation occurs gradually over time or results spontaneously from a sudden shock, once threats are perceived, the LoTES suggests that the Executive Processor immediately constricts the amount and types of information used to make sense of the environment. The decline in the amount of information sought as well as the increase in the schematic consistency of information used represents a dramatic shift. Under conditions of threat, simple schemas are relied upon and stereotypes become useful. The key is that the cognitive tasks of updating and evaluating information from the environment are drastically modified by the demand from the emotional system to deal with a novel, threatening situation.

Before specifying propositions which can be derived from this model, it is necessary to frame it within the bounds of another model designed to explain process outcome and choice in international relations. The Cognitive Calculus (CC) theory (Geva et al. 2000; Geva and Skorick 1999) attempts to model the cognitive processes used by decision makers in dealing with foreign policy problems.[2] This Cognitive

Calculus theory is introduced here to suggest a way of conceptualizing how the CS in the LoTES model operates under normal circumstances. As has been discussed above, the LoTES model suggests that both the CS and ES are constantly dealing with information from the environment in a sequential and on-line manner. The CS is constantly updating through use of information from the environment while the ES is monitoring this same information for evidence of threat. Looking more closely at the inner workings of the CS, as suggested by the Cognitive Calculus model, provides a clearer picture of how an emotional state can constrict the interpretation of foreign policy events as well as influence choice.

The Cognitive Calculus Model of Foreign Policy Decision Making

Geva and colleagues (Geva et al. 2000; Geva and Skorick 1999; Skorick 2002) suggest that an on-line process model best represents the manner in which foreign policy decisions are conducted. Milton Lodge introduced such a model of political candidate evaluation (Lodge 1995; Lodge et al. 1989). The online model holds that information integration is a sequential process. Upon exposure to incoming information, individuals form their evaluation of decision options by immediately integrating the valence of the raw material into a 'running evaluation tally' (ibid). In Anderson's words (1981:144), "Information is received a piece at a time and integrated into a continuously evolving impression."

The Cognitive Calculus (CC) model suggests that foreign policy decision-makers integrate information into a cumulative choice propensity counter (CCP) which

represents a decision maker's inclination to adopt one option or the other. The CC model also consists of an important aspect not addressed by Lodge's on-line model: a threshold (TH) representing the point where the decision process stops. The evaluation of information continues until the choice propensity passes this threshold, or until decision makers run out of information.

To simplify the problem, the decision choice is modeled as composed of two mutually exclusive and exhaustive alternatives, specifically, the choice between executing a specific policy (*A*) and not executing it (~*A*).[3] These two options may consist of using force or not using force in a bilateral international conflict, providing or not providing economic foreign aid to another country, and more.

Geva and colleagues assume that the process begins with a decision-maker pondering whether (for example) to use force or refrain from using force in a crisis. The decision-maker is then exposed to a sequential flow of information that he or she must consider before making a choice.[4] The sources of these items may include advisors, media, representatives of other nations, and items retrieved from the decision-maker's own knowledge.

According to the CC model, foreign policy inputs are defined by certain characteristics. They are the valence, relevancy, reliability and redundancy of the information. These factors influence the cognitive/computational process of decision making and affect whether information is included in and contributes to a foreign policy choice.

The information valence (IV) of an item is defined as the implication an item has for moving choice propensity toward one of the two options. The valence is negative 'one' for information that will move the decision maker toward option ~A (not using force), 'zero' if it does not lead to a move toward either of the options, and positive 'one' for information that will move the decision maker toward option A (use of force). Thus, the values of this parameter are: IV = -1, 0, 1

The relevance of an item (Rl) reflects the 'correlation' between the dimension underlying the item, and the dimension underlying the decision maker's choice propensity.[5] The range of values of an item's relevancy is: 0< Rl<1

Reliability (Rb) reflects the confidence a decision-maker has in the accuracy of the information.[6] Information of low reliability has less of an impact on a decision than highly reliable information (controlling for its relevance). The range of values of an item's reliability is: 0 <Rb< 1

As a decision maker acquires and processes information en route to a choice, he or she soon finds that cues are not only related to the crisis context, but that are also related to each other (c.f. Einhorn et al. 1979). Redundancy, can be defined as the common variance between or among cues (Schmitt and Dudycha 1975), or simply as information intercorrelation (Gilliland and Schmitt 1993). Information redundancy can have both positive as well as negative aspects for the decision process.

Foreign policy decision-makers translate incoming information into the above mentioned parameters of valence, relevancy, reliability, and redundancy through their implicit theory of international relations (ITIR). The ITIR represents the stored

knowledge and beliefs any decision-maker holds with respect to international events. Taber notes that "any decision maker's belief system will contain beliefs about 'how the world works' in certain contexts" (Taber 1992:890). This knowledge base includes perceived and or believed relations that exist between or among concepts that describe the international arena. The ITIR, for example, may include the belief that a democracy will not wage war on another democracy, or that a bold aggressive foreign policy act facilitates domestic political credit, etc. The ITIR concept relates closely to similar conceptualizations of international belief systems (ibid), operational codes (George 1969; Walker 1977, 1983), images (Herrmann et al. 1997), and cognitive maps (Axelrod 1976; Young 1996). Taken together, the ITIR represents an individual's cognitive system (CS) as theorized herein.

The CC model suggests that during the decision process, there is constant interaction between incoming information and the ITIR. This follows the Snyder, Bruck and Sapin's (1962, 2002) proposition that the beliefs of national decision-makers affect the perceptions and interpretations of an international situation and are then translated to national actions.[7] Basically, the ITIR is a critical source for defining the relevance of incoming information, as well as its relation to other items included in the process. The valence of an item emanates from the ITIR as it suggests implications for accomplishing a decision-maker's goals. Moreover, beliefs about the source of the information and the compatibility of its valence with previously acquired knowledge may translate into a decision-maker's confidence in an item's reliability. An important process question

concerns what happens when the translation of information via the ITIR is usurped by the inclusion of emotion?

PROPOSITIONS, RESEARCH QUESTIONS, AND HYPOTHESES

The LoTES Model suggests several extremely important propositions for the relationship between negative emotions, negative affect, and cognitions about foreign policy events. It is important to note that these hypotheses focus on the constraints that negative emotions place on the executive processor in terms of capacity and content, and that these constraints result in a step-wise effect on the amount and types of information pieces drawn into the executive processor. The propositions stated above are summarized again here:

Proposition 1: Negative emotions limit both the capacity and content of items placed into the "executive processor." The model suggests that emotions have a "thematic" effect on the types of items drawn into working memory in the process of interpreting events.

Proposition 2: The constraints on both capacity and content imposed by negative emotions on the executive processor are reflected in what is analogous to a 'step-wise' or non-linear movement between the number and quality of cognitions marked by no emotions and negative affect to negative emotions. This relationship is made more implicit in the hypotheses suggested below.

Proposition 3: The association of negative emotions towards a target results in few—and primarily relevant and emotionally congruent—items drawn from the cognitive system into the executive processor.

Proposition 4: The presence of few and relatively homogeneous clusters of information being used results in biased interpretive processes which are generally consistent with appropriate schema or images (e.g. the use of stereotypes).

From the previous explication of the model and the discussion of the interaction of its related components, the hypothesis to be addressed here deal with the effects of the independent variable—a negative emotional and negative affect state on the part of the individual—on two different dependent variables: 1) event interpretation or how such persons make sense of the world, and 2) choice, or how such individuals make decisions about how foreign events should be dealt with.

To reiterate the previous discussion, the LoTES model suggests that because of the restriction on cognitive capacity and content arising from a negative emotional state, individuals in such a state will use less information en route to interpreting or "making sense" of an important event and also use more negative inferences and attributions about an actor associated with that event. Similarly, this restriction on cognitive capacity and content resulting from the negative emotional state will influence individuals' choices about how foreign policy events ought to be dealt with by restricting the amount of information available for use in such decisions and the amount of time spent attending to this information.

Dependent Variable 1: Event Interpretation

As a critical variable in understanding foreign policy, making sense of the world has been shown in studies of problem representation and situational definition to play a key role in foreign policy outcomes (Hermann 1969b; Billings and Hermann 1998), the definition of the situation (Hermann 1969b). Within the foreign political context it is often the case the problems tend to be ill-defined requiring observers to add meaning to fill the vacancies left by poor or inadequate information (Vertzberger 1990). In such instances, a number of attributes are left unspecified or unclear and it their specification is dependent upon external or internal forces, such as the use of historical analogies, schematic reasoning, or further information searches (ibid.; Reitman 1964). How do observers "fill in the gaps" in order to make sense of what is taking place and thereby generate implications for oneself and one's society? This is the fundamental question addressed by our attention to the dependent variable of event interpretation.

While it may be that interpretation of an event is fundamentally cognitive, the LoTES model suggests that emotions impact cognitions relevant to stimuli. An event can be interpreted in a number of ways. One way in which event interpretation can be understood is by analyzing the attributions, evaluations and inferences individuals make about an object. Subjects who hate or are distressed by the actions of another country will make inferences about that actor's motives, intentions, and qualities in a far different manner than one who does not feel any particular emotion toward that person.

The presence of a negative emotion towards a target dramatically influences the types of cognitions brought to bear about the object. As noted in Proposition 2, at a

certain point, a dramatic 'step' exists between a negative affective evaluation and the existence or occurrence of negative emotion. This step accounts for the coloring of events which is activated by negative emotions like hate, anger or fear. Similarly, the step from dislike to hate implies the differentiation in processing at the level of the emotional system versus that of the cognitive system.

> H1: A negative and non-linear main effect exists between the quantity and extremity of inferences and attributions made concerning an event and an individual's emotional state (i.e. negative emotion, negative affect, or no emotion).
> Individuals experiencing negative emotions toward a target make more negative inferences and attributions about the characteristics of that actor, or the consequences of its actions, than do individuals experiencing negative affect—or no emotion or affect—toward an actor.

Dependent Variable 2: Choice

Relatedly, emotional cues are hypothesized to dramatically affect the processing of information about a foreign policy problem en route to a decision. Hypothesis 1 is in agreement with Marcus' model that individuals are more attentive to emotionally-laden information from the environment (1988). However, parting from Marcus, the theory suggests that the heuristic value of negative emotions is such that less time, attention, and information will be utilized for a decision.

Using the parameters of the CC theory, we might model the processing effects of emotions in terms of its effects on relevance, reliability, valence, and the TH. The presence of negative emotions within the decision making context will attune decision makers to highly relevant and negatively valenced items of information. Because of the information-providing function of emotions, reliability will be less important, as will

redundancy. Finally, the constriction of the cognitive capacity by emotions suggests a narrower and asymmetrical TH. The direct effect of emotions on information processing is to decrease the amount of information required to surpass the TH.

> H2a: A negative and non-linear main effect exists between the amount of information required to make a decision and an individual's emotional state (i.e. negative emotion, negative affect, or no emotion).
> H2b: A negative and non-linear main effect exists between the amount of time required to make a decision and an individual's emotional state.
> H2c: Hypotheses 2a and 2b are qualified by an interaction between the proportion of valenced items and an individual's emotional state. The difference between the numbers of positive vs. negative items processed by individuals who have negative affect will be larger than that processed by individuals who have negative emotion or no emotion. Similarly, the difference between the amounts of time spent processing positive vs. negative items by individuals who have negative affect will be larger than that processed by individuals who have negative emotion or no emotion.

OPERATIONAL DEFINITIONS OF NEGATIVE AFFECT AND NEGATIVE EMOTION

The critical independent variable in this study is the psychological state of the decision maker. There are three specific psychological states marking the three levels of the independent variable – psychological states that specify how the individual receptors interact with incoming information and thus influence the interpretation of the international event and the choices that person will make. The three levels of the independent variable are: emotion, affect, and control. Each level represents the extent to which the emotive system is involved in the information processing. The onset of the emotive system requires the activation of the ANS as well as a personal subjective

experience that is labeled as an emotion. The affective state implies an evaluative response that is predominantly cognitive and the control state lacks either one of these experiences.   How are these states introduced and how confident are we that they are actually in operation?

Inductions of the Negative Emotion

Since a critical component in this state is the activation of the ANS ample research suggests that visual stimuli can incite ANS activities which are labeled as emotions by subjects (Ekman 1992, 1994; Gross and Levenson 1995). In order to generate the required independent variable states this study will pursue a similar strategy, deriving construct validity from past research. The emotional state will thus be produced by generating an experience resulting from viewing a very specific video clip. This experience of viewing a video clip, which past research in other fields has verified results in changes in autonomic nervous system behavior, will be labeled by subjects as a negative emotion. While in this study there is no use of direct physiological measures of the ANS, we use self report measures of the decision makers as indicators of the emotive experience. Numerous studies have validated these scales as appropriate indicators of the emotive state of the individual.

Negative Affect

Written material does not tend to invoke similar ANS changes but activates neural mechanisms associated with explicitly evaluative tasks. Therefore the negative

affect state will be created by presenting subjects with a written news event, a task which does not necessarily activate ANS responses and is thus unlikely to be labeled as an emotional state. Yet, the affective state should imply a negative evaluation of the individuals to the source of that affect.

Control

None of the above. As noted previously, contemporary research has begun to uncover direct links between emotional feeling states and physiological changes in neurological behavior. Changes in the human autonomic nervous system (ANS) have been linked to experiences of fear, anger, anxiety, and sadness (Damasio 1999; Labar et al. 1998; Anderson and Phelps 2002; Adolphs 1999; Ekman et al. 1983). Furthermore, changes in the ANS arising from emotional experiences have been manipulated using visual stimuli, such as pictures and video clips (Ekman 1992; Ekman et al. 1983; Gross and Levenson 1995; Puce et al. 1996; Gauthier et al. 1999). Changes in ANS activity— physiological changes—are identified by subjects experiencing fear, anger, or sadness. Changes in ANS activity are thus reported or labeled as emotional experiences. To whit, subjects suffering from very particular brain lesions or who have experienced damage to the ventromedial frontal cortex (VM) area of the brain do not experience normal autonomic changes and thus fail to report experiencing subjective feelings in the presence of stimuli (Damasio 1994, 1999; Bechara et al. 1997).

To summarize this important discussion, past research shows that visual stimuli such as pictures and video clips activate neuro-physiological processes which subjects

self-report as emotions. Using similar techniques, we will manipulate the same neuro-physiological processes en route to generating negative emotions. Construct validity informs us that our use of visual measures similar to those used by past researchers to generate emotion will be successful. Thus, we suggest the operational definition of the independent variables—emotional/affective state—will be the ANS responses successfully manipulated via a video clip displaying negative and mildly distasteful images about an important foreign policy event (in the case of negative emotion) or the negative evaluations required from reading a written news story containing unpleasant information about an important foreign policy event (in the case of negative affect).

Within the framework of uncovering similar evidence of the effects of emotional states within a real-world context, Section 7 will provide details of a case study designed to show how the independent variable state influenced (or did not influence) observers responses to the first and second attacks on the World Trade Center. An obvious and legitimate question pertains to the relevance of publicly expressed emotions, such as those found in the writings of newspaper editorials or letters to the editor, for any future discussion on their influence in foreign policy decision making. It is important to keep in mind here the caveat noted in the first section (see pp. 9-11) regarding a non-elite unit of analysis in this study. While there is an underlying assumption that all political observers—elite and non-elite—are influenced in a similar fashion by the effects of negative emotions, that assumption is not tested here. The logical connection between the model discussed in this research and the effect of emotions on elite decision making behavior must be addressed elsewhere, or assumed indirectly, as would be the case if we

turned our attention to the connection between public opinion and foreign policy decision making (c.f. Holsti 1992; Hinckley 1992; Jentleson 1992; Iyengar 1989). To the extent that we draw a connection between public perceptions of international relations and the behavior of foreign policy decision makers, we can indirectly relate our findings here to elite behavior. Further testing of the direct role of emotions on elite foreign policy decision making using the model discussed in this study must of necessity be dealt with at a later time.

METHOD

EXPERIMENTATION

In the mid 1960s, Hedley Bull criticized the increasing emphasis practitioners of International Relations had begun to place on quantification noting that, "The scientific approach has contributed and is likely to contribute very little to the theory of international relations" (1966:366). Thirty years later the continuing development and refinement of methodological tools with which political scientists in all sub-disciplines gather and analyze data has not only contributed substantially to the evolution of political science theories, but tools once considered inapplicable to the analysis of socio-political phenomena are widely accepted. The use of experimental and quasi-experimental methods to gather data and refine political theories is one example of such an evolution.

Testing of the hypothesis derived from the LoTES model will proceed from a multi-method approach: experimentation and case studies. The use of a multiple methodologies in addressing political phenomena allows the researcher to not only improve the development of theory which attempts to explain such phenomena (Brewer and Hunter 1989). Our use of both experiments and case studies in pursuit of further understanding the relationship between emotions and foreign policy perceptions can be enhanced through reliance on this multi-method tactic. Because of the sometimes controversial nature of experimentation in political science, and misunderstanding about our ability to generalize from experimental findings to understand real-world political

questions, a review of the logic behind experimentation in political science will be provided as well as a defense of the external validity of this approach. While the subject of experimentation in political science has been dealt with in depth elsewhere (McDermott 2002a, 2002b) the following discussion of experimentation is intended to provide clarification of the standards sought within this research program and to place its findings within a larger, newer, and growing community of research.

Kinder and Palfrey (1993:6) note that "experiments intrude upon nature . . . to find answers to causal questions." They further note that the diversity of experimental and quasi-experimental designs used by political scientists has grown considerably, with varying subjects and conditions. However, a major criticism of experimentation within the social sciences centers on the ability to control variables and adequately randomize populations to be tested. Kinder and Palfrey's book, cited below, offers numerous examples of controlled and randomized experiments. Furthermore, one can effectively argue that insisting upon *perfect* control is requiring that which few sciences employing experimental methods are able to achieve. Nagel (1961) notes that perfect control in an experiment is an ideal, but that it is impossible in any experiment to control every variable but one.

In *Experimental and Quasi-Experimental Designs for Research*, Campbell and Stanley (1963) note several experiments as far back as 1923 that attempted to evaluate an imposed effect on a population. The authors, who went on to provide what is still considered today a primer in the use of experimentation, focused on validity and the effect of randomization as the key elements in evaluating the efficacy of experimental

methods. Threats to internal validity such as history, maturation, testing, and statistical regression towards the mean were seen to be nullified if randomized control groups and pre-testing were part of the experimental process. External threats to validity such as the interaction effects of testing and selection biases as well as reactive effects of experimental arrangements were viewed as more difficult to account for in experimental designs yet not entirely intractable. Using experimental methods in the study of political phenomena requires an understanding of the potential impediments researchers may face. These obstacles fall broadly into two groups: operational and evaluative.

Evaluative limitations are those difficulties concerned with the validity of a political science experiment, namely, internal validity, external validity, and construct validity. Threats to internal validity occur when, "the conditions under which an experiment is conducted produce systematic sources of variance that are irrelevant to the treatment variable and not under the control of the researcher" (Aronson et al. 1986:477). Mohr (1992) notes two primary sources of threat to internal validity: history and selection. The effects of history include anything outside of the treatment that changes the tested subject. Such effects include age, the effect of a pretest, external events, attrition or loss of test participants, and cyclical regression towards the mean. Selection effects are those changes that exist between comparison groups which may account for a change in the dependent variable of an experiment. Comparison (or control) groups may be used to offset historical effects, however the groups themselves may have possessed differing attributes or characteristics that could account for a change

in the dependent variable. Thus, the selection process may have failed to create equitable groups, thereby calling into question the results of an experiment.

External validity refers to "the extent to which a causal relationship . . . can safely be generalized to other times, places, and people" (Aronson et al. 1986:477). To say that an observed causal effect takes place in a laboratory setting is not necessarily an indication that the same effect exists in the real world. The conditions under which an experiment takes place, in terms of both environment and the populations used, can affect the experimental results in such a way as to invalidate any conclusions based upon the findings. Examples of external validity criticisms pertaining to political science experiments include the fact that college students are often subjects, that experiments are often run on campuses, that multiple tests are sometimes used thereby sensitizing subjects to the treatment effect, or even that the race, gender, or age of the experiment's administrators affect the outcome. However, Mook's (1983) caution pertaining to our interpretation of external validity should be noted. Mook suggests that apart of applied studies, most experiments pertaining to social psychological phenomena are not intended to produce results generalizeable to a real-world population, but instead are intended to produce results which tell us something about the theory itself. Thus, as Mook notes, our understanding of social phenomena is derived "from theory or the analysis of mechanism; it is not a matter of 'generalizing' the findings themselves (*ibid.*:386).

Finally, the issue of construct validity follows from the aforementioned operational difficulty of experiments within political science. Aronson et al. (1986) note that construct validity questions the extent to which the "operations and measures

embodied in the experimental procedures of a particular study reflect the theoretical concepts that gave rise to the research in the first place" (*ibid*:479). An experiment designed to provide data regarding theoretical constructs requires the researcher to operationalize certain concepts and interpret treatment effects in certain ways. If it is argued that an experimental treatment was not an adequate representation of the underlying theory, or that the results indicate something other than that which the political scientist suggest, then the construct validity of an experiment is being challenged.

Regardless of these potential limitations, and as noted earlier, a carefully designed experiment can not only provide strong support to a theory but can also minimize the above obstacles. This is due for the most part in that the very design of a true experiment eliminates most threats to internal validity, and other steps can be taken to strengthen the external and construct validity of a given experiment.

Operational difficulties can be minimized primarily through research, though Kinder and Palfrey admit that certain problems of political science do not lend themselves to experimental research (Kinder and Palfrey 1993). Substantial literature regarding experimental design exists in other social science disciplines such as psychology and economics. Similarly, a substantial and growing number of true experiments has been conducted by political scientists. The variety of differing field and laboratory experiments in these fields of inquiry can provide the political scientist with ideas and suggestions for the implementation of his or her experiment.

The use of control groups, randomization, and multiple measures can effectively eliminate most of the threats to validity mentioned previously. A simple case study (denoted as: $X > T > Y$) illustrates the effect of control groups. It is impossible in this case to say T caused Y. Any of the threats to internal validity, especially external events, age, attrition, and regression could account for the change from X to Y. If we add another group, exclude it from treatment, and analyze it at point Y, any change in the first group (Y_1) not evident in the control group (Y_2), may be a result of the treatment. Because the control group allows the scientist to compare changes in Y_1 and Y_2, the effects of history are negated.

Randomization allows the scientist to control the other internal threat to the experiment, namely selection. Though the difference in control groups might be a result of the treatment, it may also be a result of the two groups. Randomly assigning subjects to comparison groups as well as randomly assigning groups to treatments eliminates the threat of selection. Randomization makes the control and test group effectively equal prior to the treatment, thereby excluding the possibility of selection bias (Mohr 1992). The effective use of control groups and randomization allows the political scientist a great measure of latitude in determining whether the treatment alone caused the observed effect. While, as Nagel (1961) notes, it appears impossible to eliminate every potentially influential variable from an experiment except the treatment variable, the effective reduction of non-spuriousness, or the possibility that something other than the treatment caused the observed effect, is inherent in the true experiment's use of control groups and randomization.

The greatest means of decreasing challenges to the external and construct validity of an experiment is through the use of multiple measures and replication. If the theory being tested allows for different types of treatments or different subjects and settings, varying these will provide further data with which the relative strength of the theory can be evaluated. The role of theory in the development of multiple tests is self-evident. If the theory does not allow for differing treatments, using a variety of experimental designs can also strengthen claims of construct validity. Experiments, especially those conducted in a laboratory setting, are most vulnerable in regards to external validity, though replication combined with some controls can assist in the strengthening of external validity. For example, Aronson, Brewer, and Carlsmith note one experiment wherein the scientist successfully replicated his experiment in a field setting in order to control for the effect of environment in the results (Arsonson et al. 1986). If the pure effect found in the laboratory can be replicated in the field, the strength of a theory is thus vastly improved.

In short, the very design of the true experiment, centering around the use of control groups and randomization, controls for variance in a manner that decreases the potential of non-spuriousness and provides strength to any causal inference. Threats to internal validity are inherently neutralized through the experimental process. Claims against external validity do not in and of themselves discount claims of causality within the lab and can be addressed through the use of different techniques, selective replication (controlling for perceived threats to external validity), and experimental design (Kinder

and Palfrey 1993). Construct validity can likewise be strengthened by replicating an experiment with different measures.

If, as noted at the beginning of this section, the aim of political science is to establish causal connections between phenomena, then the true experiment is the ideal conceptual and operational framework for political scientists to use in the development and testing of theories. Though not all fields of political inquiry are amenable to experimentation, the concepts embodied within the design and process of the experiment applies to all research of political phenomena.

OPERATIONALIZING EMOTION

In order to proceed with such tests, it is further necessary to provide a valid and reliable operationalization of emotion. An attempt to operationalize the aforementioned definition of emotions is concerned with verifying how we can observe such a phenomenon as an emotion, and how we can know what we have seen is what we think it is. We must turn in such instances to discussions of validity. Within the scientific community, validity is primarily concerned with whether one is measuring what one thinks he or she is measuring (Frankfort-Nachmias and Nachmias 1996). The validity of measures used to elicit emotions in subjects has produced a large number of studies within other fields of social scientific research.

In experimental studies, emotions have been manipulated in many ways within the past social psychological research, including visual presentation of emotional materials (Hatfield et al. 1995; Newhagen 1998; Lerner, Goldberg and Tetlock 1998;

Mezzacappa et al. 1999), auditory manipulations (Hatfield et al. 1995; Niedenthal et al. 1997; Masaoka and Homma 1997), odors (Robin et al. 1998), and other forms of sensory stimulation (Gerritsen et al. 1996; Crombez et al. 1998).

One of the most common operationalizations of emotions is in the use of video clips (Pillard et al. 1974; Brown et al. 1977; Marston et al. 1984; Gross and Levenson 1995; Palomba et al. 1997; Hagemann et al. 1999; Niedenthal et al. 2000). The emotions elicited include anger, saddness, fear, hatred, and joy, to name the most prominent. The validity of these manipulations have been confirmed primarily through physiological observation (heart rate, facial EMG, skin conductance, positron emission tomography (PET), functional magnetic resonance imaging (fMRI); and other measures (Mewborn and Rogers 1979; Hubert and de Jong-Meyer 1990; Maddock and Buonocore 1997) and self-reports—for which several scales have been developed (Watson et al. 1988; Izard 1972).

Experimental Procedure

Overview

Between 200-300 upper division college students at Texas A&M University were invited to participate this project. The research program consisted of three parts: (1) an experimental pretest of the materials to be used in experiments 1 and 2, (2) experiment 1 which analyzed the impact of emotionally provoking video and written news media on the interpretation of international events, and (3) experiment 2 which analyzed the impact of emotionally provoking video and written news media on the processing of

information pertaining to international events. The pretest was designed to determine the effectiveness of the video clip in generating an emotional response. The video clip was designed to be similar to those seen on television. Video material was drawn from stock news footage of crowds rejoicing over the deaths of US Marines in Mogadishu, Somalia on October 4, 1993. Both video and written materials were presented as hypothetical scenarios involving the fictitious country of Manova. Both video and written materials were presented to subjects via computer software. At the end of the video clip or written report subjects were asked to indicate on an anonymous questionnaire how they felt having viewed the information.

In experiment 1 of the project, subjects were exposed to information about an unfolding international crisis. When subjects finished reviewing information about the scenario, they were given an anonymous post-experimental questionnaire. The subjects were asked to indicate their responses to a number of inferential statements about the country and to recall as many items from the scenario as they could.

In experiment 2 of the project, subjects were exposed to an unfolding international crisis for which they had to choose among hypothetical policy options. The decision maker controlled the in-flow of information about the crisis. The subjects were able to access information up to a point at which she/he picked one of the options or exhausted all the available information (then a choice had to be made on the basis of the information that had been reviewed). When subjects had finished reviewing information about the scenario and had made a choice, they were given an anonymous post-experimental questionnaire. The subjects were asked to indicate how confident they

were with the choice and were asked to recall as many items from the scenarios as they could.

Subjects

247 upper division college students from Texas A&M University participated in these experiments. The pretests were conducted using 44 students. In the pretest, subjects were randomly assigned to one of 3 experimental conditions. Experiment 1 was conducted using 101 students. In Experiment 1, subjects were randomly assigned to one of nine experimental conditions. Experiment 2 was be conducted using 102 students. In Experiment 2, subjects were be randomly assigned to one of nine experimental conditions. Subjects were not students in classes in which the principal investigator was an instructor.

Design

Pretest of the research material for evaluation of experiments 1 and 2:

This was a simple pre-test designed to determine the effectiveness of news items and news clips in generating emotional responses. Subjects were randomly assigned to one of three conditions. Condition 1 consisted of a short video news clip. Condition 2 consisted of a short news story which reported in written form the information provided in the video in Condition 1. Condition 3 consisted of a short description of a hypothetical political problem occurring between the US and a fictitious country. The dependent variable was the self-reported emotional response to the visual or written news items.

Nineteen undergraduate students (obtained from the same pool of participants for the experiments) were involved in the pre-test of the emotional/affective manipulation. In the neutral condition the subjects were exposed merely to the basic scenario of the international crisis, in the affective treatment the subjects read the written version of the news report, and in the emotional treatment subjects viewed the full audio/video clip. Following the exposure to one of the three treatments, the students responded on a scale ranging from 0 to 10 whether they experienced one of the following emotional reactions: Anger; Hate; Sympathy; Fear towards the Manovans.

Table 1 illustrates the means of subjects' responses as a function of the treatment. The responses suggest the effectiveness of the manipulation along three of the four emotions. The only case where the treatment did not yield a statistically significant effect was along the fear dimension.

Table 1. Pretest Results for Emotional and Affective Manipulations

	Angry	Hate	Sympathetic	Fear
Emotive state				
Control	1.17	.17	1.17	1.33
Written	6.00	2.00	1.67	1.50
Video Clip	9.43	7.29	.29	.86
F	206.97 p<.0001	88.63 p<.0001	4.42 p<.03	.57 ns

To test the effectiveness of the valence manipulation we asked 25 other students (taken from the same subjects pool we used in the experiments) to read the items of a particular set of information and to form an impression of that nation on a scale ranging from –5 to +5. The effect of the manipulation is statistically significant, $F(2,22)=39.05$ p<.0001. The positive set of items led to a more positive impression of Manova

(M=3.33) than the mixed set (M=.25) and the 'worst impression' was in the negative set (M=-4.13).[8]

As mentioned previously, the logic underlying the operational definition of emotion used here relies upon the idea that past research shows that visual stimuli such as pictures and video clips activate neuro-physiological processes which subjects self-report as emotions. Using similar techniques, we will manipulate the same neuro-physiological processes en route to generating negative emotions. Construct validity informs us that our use of visual measures similar to those used by past researchers to generate emotion will be successful. Thus, we suggest that the independent variables-emotional/affective state-will be successfully manipulated via a video clip displaying negative and mildly distasteful images about an important foreign policy event (in the case of negative emotion) or via a written news story containing unpleasant information about an important foreign policy event (in the case of negative affect).

Experiment 1:

This experiment was designed to assess the degree to which emotional responses to news reports influenced the evaluation and interpretation of political events. The experiment consisted of a 3x3 factorial design in which the factors were the emotional/affective manipulation (video clip, news report, or none) and valence of country description (mixed [50% positive, 50% negative], positive [80% positive, 20% negative], or negative [80% negative, 20% positive]). Subjects were randomly assigned to one of nine conditions. In all conditions, subjects reviewed a hypothetical political problem occurring between the US and a fictitious country. The first manipulation

(video news report, written news report, or none) was followed by the country description manipulation, which consists of a short essay of descriptive information about the fictitious country in question. Dependent variables included recall of information and inferences about the country in the scenario.

Experiment 2:

This experiment was designed to assess the degree to which emotional responses to news reports influenced the processing of information about an important political event. The experiment consisted of a 3x2x2 between-group design in which the factors were the emotional/affective manipulation (video clip, news report, or none) and valence of country description (mixed [50% positive, 50% negative], positive [80% positive, 20% negative], or negative [80% negative, 20% positive]). Subjects were randomly assigned to one of nine conditions. In all conditions, subjects reviewed a hypothetical political problem occurring between the US and a fictitious country and were asked to make a decision about what the US response to the problem should be. After the introduction, the first manipulation (video news report, written news report, or none) was followed by the country description manipulation, which consisted of a sequence of descriptive information items about the fictitious country in question. Dependent variables included choice, the amount of time taken to view the scenario, the number of items viewed, the average amount of time taken to view each item of information, and recall of information from the scenario.

Instrument

In the pretest, experiment 1 and experiment 2, subjects were exposed to information as presented to them via computer. A computerized program allowed subjects to review information and then, by clicking on the appropriate button, review a new item of information. This procedure was followed until the subject was informed by the computer application to answer questions pertaining to the information items viewed. Written responses were collected on anonymous handouts.

Procedure

In the pretest, experiment 1 and experiment 2, subjects were seated at individual computer terminals in the Foreign Policy Decision Making lab of the Political Science department at Texas A&M University and were instructed in the use of the computer application before being asked to begin reviewing information. Subjects started reviewing information by clicking on a button in the software which began the sequence of information. At the appropriate time, subjects were informed when they should click the button again to view the next piece of information. At the end of the material, subjects were informed that they should complete a questionnaire. Upon completion of the pretest, experiment 1 and experiment 2, all subjects were debriefed about the theoretical and empirical context of the project.

EXPERIMENT 1

In line with the current research which stresses the importance of problem representation (Billings and Hermann 1998), and the definition of the situation (Voss 1998; Sylvan and Voss 1998), the interpretation of an event is of critical importance to the understanding of foreign policy decision making. Event interpretation primarily revolves around the concept of *making sense* of some occurrence. While interpretation of any event is fundamentally cognitive, the model suggests that emotions may impact cognitions relevant to stimuli. An event can be interpreted, or made sense of, in a number of ways. One way in which event interpretation can be represented is by analyzing the attributions, evaluations and inferences individuals make about an object. Subjects who hate or are distressed by the actions of another country will make inferences about that actor's motives, intentions, and qualities in a far different manner than one who does not feel any particular emotion toward that person.

Two main hypotheses about event interpretation have been derived from the propositions noted earlier. First, in contrast to negative affect, the influence of negative emotions on event interpretation should be seen in 1) less processing time devoted to new information, and 2) less attention to new information as measured by recall of items. Second, we expect an interaction between an emotive state of the perceiver and the valence of information he or she has to interpret.

Negative affect should be reinforced by exposure to negative information about the actor, or modified by exposure to positive information about the actor. Individuals

experiencing negative affect toward a target, but who have been subsequently exposed to positive information about that target should make fewer negative inferences and attributions about the characteristics of that actor, and recall fewer negative items of information, than individuals who experience negative affect toward a target but who have been subsequently exposed to negative information about that target.

On the other hand, a reduced effect is expected between the presence of negative emotions toward an international actor and the valence of new information about that actor. Negative emotion is not altered by exposure to positive or negative information about the actor. Thus, individuals experiencing negative emotion toward a target, but who have subsequently been exposed to positive information about that target should make as many negative inferences and attributions about the characteristics of that actor, and recall as many negative items of information, as individuals who experience negative emotion toward a target and who have subsequently been exposed to negative information about that target. In short, a negative emotional state attenuates the impact of valenced information, while negative affect may augment it. Put more clearly, the LoTES model suggests that the main effect of an emotional state on event interpretation will be seen in a bias in terms of the type or content of information focused on, and the amount of information focused on:

H1: A negative emotional state will lead to less time spent processing new information (in contrast to negative affect or the control condition).

H2: A negative emotional state will lead to less attention to new information as measured by recall of items (in contrast to negative affect or the control condition).

Furthermore, the LoTES model suggests an interaction between cognitive and emotional systems which will lead to differences in how individuals interpret events based on the independent variable state. An evaluative state of negative affect can be mediated by new information, thus:

H3: Negative affect followed by exposure to positive information will result in fewer negative inferences and attributions than a condition of negative affect followed by negative information.

H4: Negative affect followed by exposure to positive information will result in less recall of negative items of information than a condition of negative affect followed by negative information.

On the other hand, negative emotion is not altered by exposure to positive or negative information about the actor.

H5: A negative emotional state followed by exposure to positive information will result in as many negative inferences and attributions as a negative emotional state followed by exposure to negative information.

H6: A negative emotional state followed by exposure to positive information will result in the same amount of recall of negative items of information as a negative emotional state followed by exposure to negative information.

It is important to reiterate that emotion is operationalized here as the response to the video stimulus and affect is operationalized as the response to the written material (see Section 3 pp. 47-51).

METHOD

To test the hypotheses, an experiment was designed around a hypothetical international crisis concerning the fictitious island nation of Manova. The crisis involved the taking of American and foreign hostages at the US embassy by armed local rioters,

an attempt by US soldiers to rescue the hostages, and the subsequent execution of some American hostages. We employed a computerized process tracing instrument similar to that used in previous studies (Geva et al. 2000; Geva and Skorick 1999). The program presents written, audio, and visual information in a controlled setting while recording subjects behavior.

Subjects and Design

101 upper division college students from Texas A&M University participated in the main phase of the experiment. Subjects were randomly assigned to one of nine experimental conditions.

The experiment was structured as a 3 x 3 between groups factorial design. The manipulated factors were: (a) affective/emotional manipulation (video clip, written text, or none), and (b) the valence of the information describing the target nation (positive, negative and mixed). The dependent variables addressed processing parameters (processing time and information recall), and the interpretation of the event.

Instrument and Procedure

The Manova Case

All subjects were informed that they would be exposed to events ongoing between the US and Manova and would be asked to *make some sense* out of what is going on in Manova. Following this, all subjects were introduced to the Manovan crisis via the following description:

Manova is a country on an island in the Gulf of Guinea. Since the end of World War 2, Manova has been a member of the Organization of African States. It has historically had a good relationship with the United States and, since 1973, has been an important port for US Naval ships. Because of its strategic location, Manova has allowed US vessels to use its ports for refueling, repair, and crew leisure.

An agreement reached in 1995 with the Foreign Affairs Office of Manova allowed some US and foreign personnel to establish temporary residence in Manova. However, a recent measure in the Manovan elections called for the removal of US military housing from Manova. Though the ballot measure lost, a number of Manovans protested against the US presence, some of them demanding that the Manovan government no longer allow access to US Naval ships in its ports. Other Manovan officials have publicly stated that these protesters are a radical minority.

This morning you have learned that civil unrest has broken out in the capital of Manova. Initial details are sketchy but it appears that some US military and embassy personnel, as well as a small number of foreign diplomats, are being held hostage at an unknown location in the capital of Manova.

The Affective/Emotive Manipulation

Emotional manipulation was done via the use of an audio visual account of the events unfolding in Manova and was fashioned after a typical "on the scene" news report. The short video (approx. 1 minute in length) depicted riots by Manovans, described the execution of American hostages, and showed American bodies being dragged through the streets by reveling Manovans.[9]

The affective manipulation was introduced using a written account of the same event, i.e. the audio portion in writing, without accompanying video. The text of the affective manipulation read:

Events in Manova took a dramatic turn today as protests over the US and Western presence in Manova turned violent. As early as yesterday, bands of armed men were seen roaming through the streets of the capital, calling for an uprising against the current government and all Western nations. Then, without warning, the city seemed to explode this morning as militia groups began cruising through the city destroying American, British, and French business offices and shooting at suspected foreigners. However, the most dramatic event occurred hours ago as armed groups attempted to storm the US embassy and take hostages. In fact, it appears that they were initially successful as a small group of US and foreign diplomats was captured at the outset. A US marine unit was dispatched to rescue the Americans and was able to do so only after a fierce gun battle with armed Manovans. However, several other Americans and foreigners were not rescued and

were executed by Manovan crowds. Afterward, their bodies were dragged through the streets by cheering Manovans. At the moment the State Department has no comment on this situation.

A control condition was included in which subjects received neither a written or audio/visual story, but instead skipped directly to the information series.

The Valence of the Information

Following the emotional/affective manipulation, subjects were informed that, "As a context in which to gain better insight into what is happening in Manova, you can now view additional information about Manova gathered from news and governmental sources." Subjects were randomly assigned to review one of three possible information sets, a positive, negative, or mixed set of information. Each set consisted of 22 items of information. The positive set consisted of 18 positive and 4 negative items of information. Items were considered positive if they suggested that Manova or Manovans were similar to the US or sympathetic to US interests. Examples included, "Recently unclassified US intelligence documents indicate that the Manovan diplomatic corps helped US agents during times of peak Cold War hostilities," and "Manova has long stood in support of the US role in the Organization of South Aegean States and has regularly voted in support of US interests in the region." The negative set consisted of 18 negative and 4 positive items of information. Items were considered positive if they suggested that Manova or Manovans were dissimilar to the US or antagonistic to US interests. Examples included, "In recent years, the Manovan military has been accused by opposition and Western human rights agencies of corruption and brutality against its citizens," and "The Manovan government has recently, and without explanation,

expelled all foreign western missionaries and has seized all of their property and belongings, giving the westerners only 24 hours to leave the country or face detention and arrest." The mixed set consisted of 11 positive and 11 negative items of information.

The Procedure

Subjects were seated at individual computer terminals in the computer lab of the political science department and were instructed in the use of the computer application before being asked to begin reviewing information. In accordance with the goal of testing hypotheses related to the interpretation of information, subjects were informed at the start of the experiment that their task was to *make some sense* of events occurring in Manova. The computerized software guided subjects through each section of the experiment. Following the affective/emotional manipulation, subjects were presented with the additional information as described above. The program allowed subjects to review an item of information and then, by clicking on the button labeled "next item," review a new item. Subjects were required to review all 22 items of information prior to moving to the final section of the experiment wherein which dependent variable measures were introduced. Upon completion of the experiment, all subjects were debriefed about the theoretical and empirical context of the experiment.

RESULTS

This experiment attempted to differentiate between affective and emotive influences on event interpretation in the context of an international crisis. The findings reported in this regard are divided into two. The first set of results pertains to effects of

affect and emotion on processing parameters. The second set addresses these effects for inferences and judgments the participants made on the target nation, i.e., their interpretation of the information.

Affect and Emotion in the Processing of International Crisis Information

The basic premise implies that negative emotions (hate and anger) will lower the processing threshold more than an affective state, and that this effect will be expressed in the time participants spend acquiring/processing information.

The 3 x 3 ANOVA yielded the following results. First, a weak trend (on the verge of statistical significance) was found in which the emotion condition (video clip) generated faster processing time (M=175.88 sec) than the affective treatment (M=187.04), and the control conditions (M=191.33), F(2,91)=2.89 p<.06. This trend is compatible with expectations. Second, a two-way interaction was obtained between the emotive state and the type of information subjects processed [F(4,91)=3.72 p<.005]. The pattern of the interaction is illustrated in Figure 2.

Within the experimental conditions of mixed-information and positive-information emotions, as expected, decreased the time spent on acquiring information. The distinction between emotion and affect can be observed especially in the condition of mixed information. There, where the information is complex (mixed), affect increased process time while the emotion treatment reduced processing time. In other words, emotions dampened more processing when actually the situation demanded it, while affect was more in tune to the increased demand.

Figure 2. Processing Time as a Function of Experimental Condition
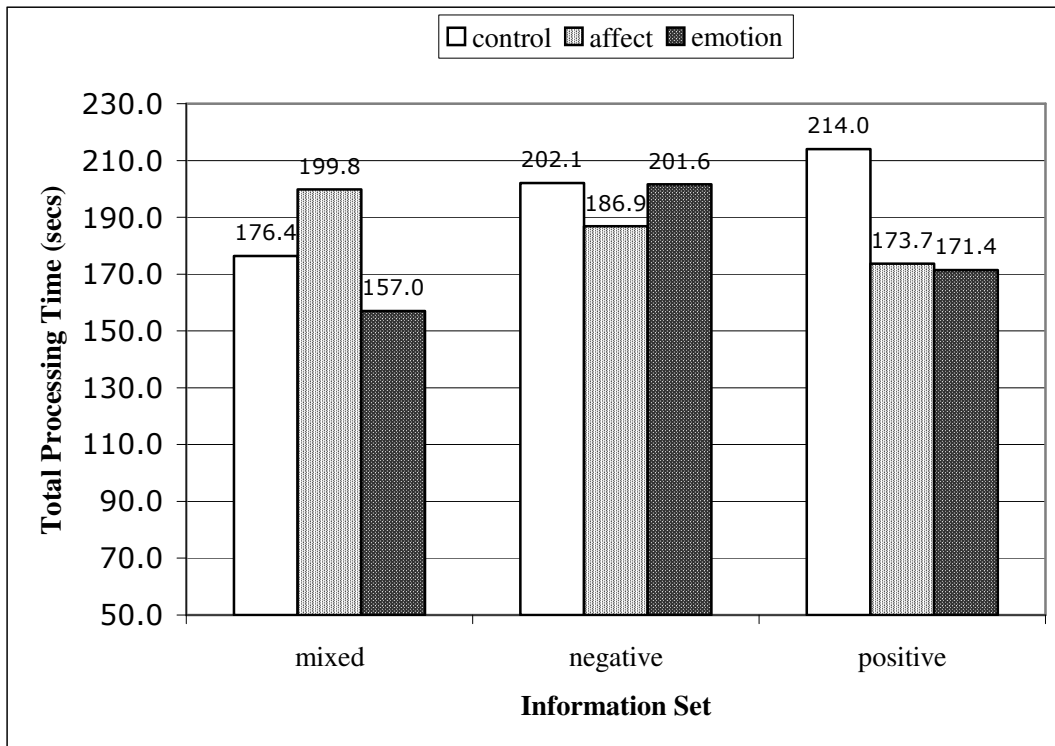
Finally, in the face of negative information about the target nation, it is surprising to note that emotion was actually associated with an increase in processing time as compared to the effects of affect, which decreased processing time. Hence, it seems that "emotional" processing is faster than the other modes for complex and thematically inconsistent information, while similar to the other affective and neutral modes when the processing entails negative, i.e., thematically consistent information.

The second processing parameter is unforewarned free recall that was used as an indirect measure of how much attention subjects paid to the information they have seen (see Geva et al. 2000). A lowered processing threshold would imply that the subjects who were required to go over all the items in the information set did that ritualistically

rather than paying close attention to each item. Shifts in attention would be expressed in the accuracy of their recall.[10] In the first analysis the total number of items subjects recalled is reported.

The overall recall was not high (about 7 of 22 items). Generally, the affect treatment led to more recall (M=7.61) than did the emotion treatment (M=6.21) or the control (M=6.50), F(2,91)=4.19 p <.05.   Once more this trend coincides with the proposition of an emotional state as potentially suppressing attention. However, if attention to incoming information is thematically mediated, then it is important to examine whether the emotive states influenced differently the retrieval of positive versus negative items from the information sets. Since each of the three sets contained a different distribution of positive and negative items, the proportion of accurate recall of positive and negative items in relation to their number in a specific set was analyzed. Thus, the proportion of recall of a particular valence of items served as the repeated measure in a 3 x 3 x 2 ANOVA.

The first finding reported from this analysis pertains to the interaction of the emotion/affective manipulation with the items' sub-category (positive vs. negative), F(2,91)=12.83 p<.0001. Figure 3 illustrates the pattern.   In the control condition, subjects recalled a higher proportion of positive items (.40) than negative items (.23). This result may represent a salience effect whereas the positive items are actually inconsistent with general story line of the initial scenario (c.f. Hastie and Kumar 1979). However, in both affective/emotive conditions the trend was reversed, i.e., a higher recall level of negative (consistent items with both the story and with the affect/emotion

inducement) than positive information. It seems that the negative affect and emotion led the participants to pay more attention to "confirming" negative information than to thematically "disconfirming" information.

Figure 3. Proportion of Items Recalled As a Function of Emotional/Affective Manipulation
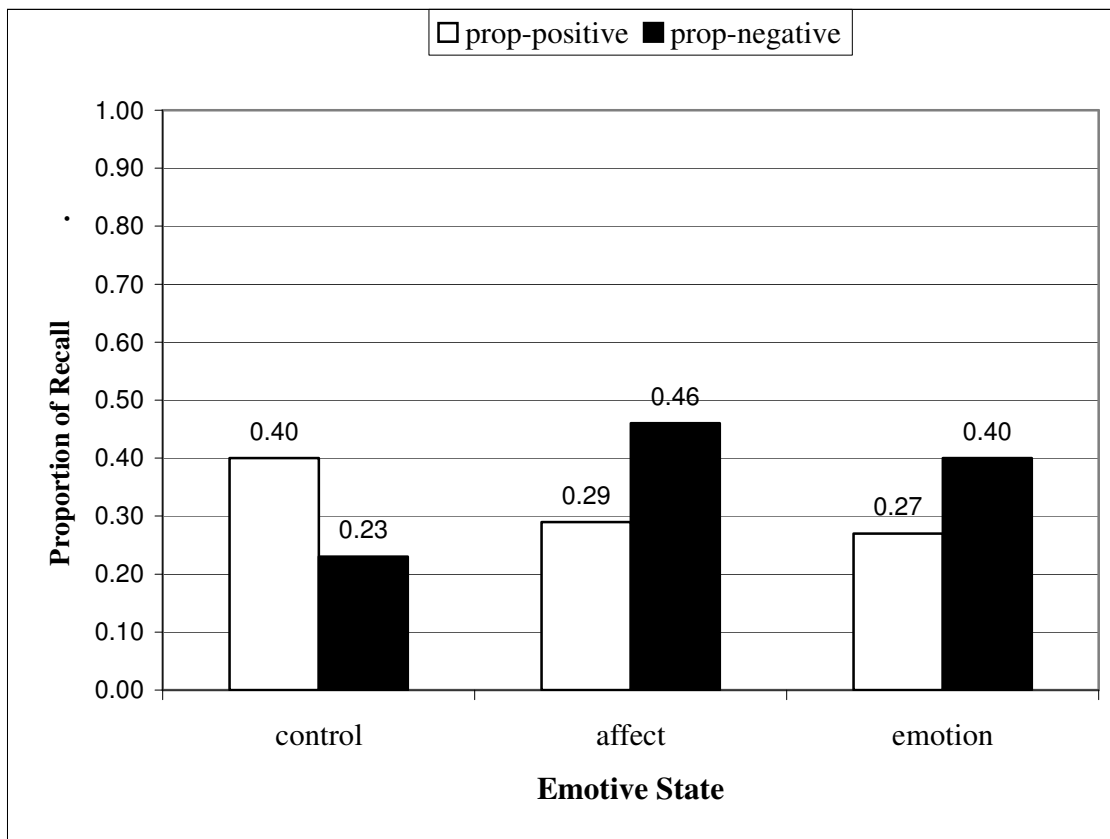
The other significant interaction is between the valence of the information sets and the proportion of recall of the two sub-categories of information (positive negative), $F(2,91)=8.92$ $p<.0003$. As portrayed in Figure 4 the main source for the interaction is the spike in the proportion of recall of positive information in the positive valence sets. This

increase in attention may well express the inconsistency effect of this set of information to the initial story of the crisis and especially to the affective/emotional treatments.

Figure 4. Proportion of Items Recalled As a Function of Information Valence
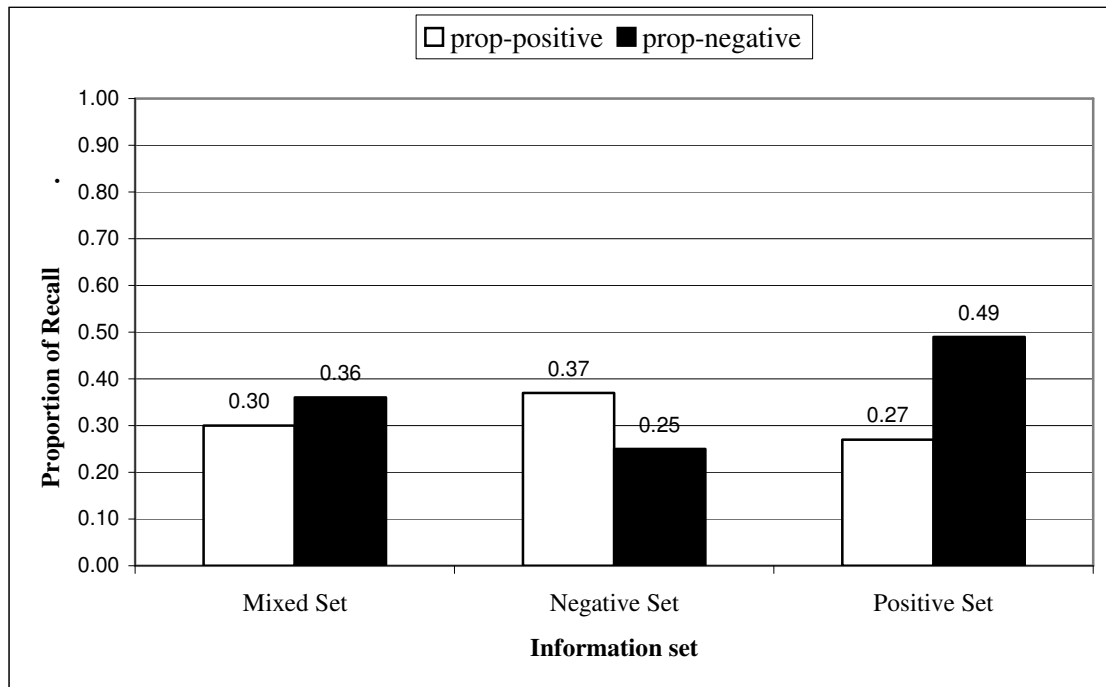
Finally the ANOVA yielded a significant three way interaction of the emotive state, the information set, and the specific category of recall [$F(4,91)=3.75$ $p<.01$). The complex interaction that is portrayed in Figure 5 suggests the following points. First, when the information set is mixed (and hence cognitively more demanding for an interpretation task)– i.e. includes the same number of positive and negative items – only participants in a negative emotional state express a confirming thematic bias and tend to recall a higher proportion of negative than positive items. In this information condition (mixed) such a thematic bias was absent both for control and for the affect induced participants. This thematic bias was specifically hypothesized in the model. While the

control participants exhibited a similar pattern of attention to the positive information in both "lop-sided" information sets (negative and positive), the affect/emotion induced

Figure 5. Proportion of Items Recalled as a Function of Information Valence and Emotional/Affective Manipulation
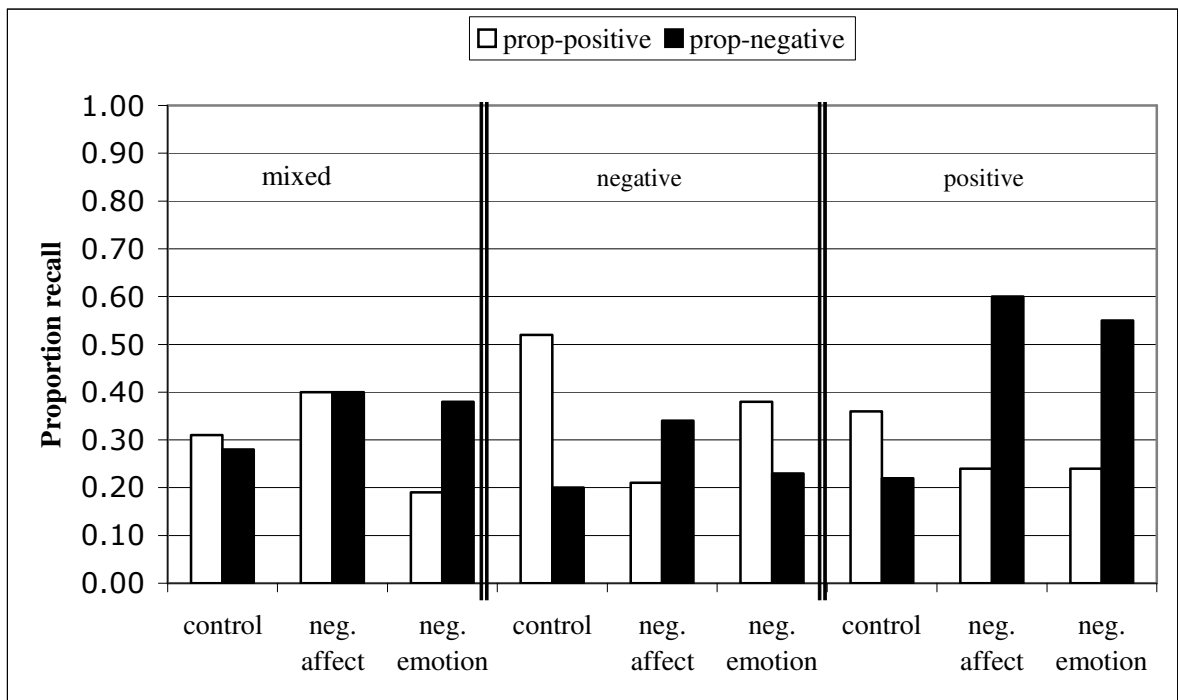
subjects demonstrated differential patterns of attention. In general, both inductions led to a confirming bias – recalling a higher proportion of negative items. Yet, in the negative set, the emotive subjects had a reversed pattern and recalled more the inconsistent positive items. Thus emotional participants were more thematically biased than affective subjects in a mixed information condition, less biased in a negative set, and about the same biased in the positive information set.

Inferences and Judgment of the Target Nation as a Function of Emotive States

Variations were expected in the valence of the sequential information sets to influence the interpretation of the crisis and particularly the perception of Manova and its people. Moreover, it was hypothesized that negative emotion will suppress the effects of the different contents compared to the influence of an affective induction and the control conditions. The responses of the subjects addressed several dimensions: How democratic is Manova? How similar is that country to the USA? How likely is that country to negotiate in a context of crisis?

The findings suggest that along these three dimensions the information sets had a significant effect. The positive valence set led to more favorable impressions than the mixed sets, while the least favorable impressions were generated when the valence was mainly negative. These results are shown in Table 2.

Table 2. Inferences and Judgment of the Target Nation as a Function of Information Valence

	Valence of Information Set			
Dimension	Negative	Mixed	Positive	F(2,91)
Similar	1.91	3.58	5.57	39.12 p<.0001
Democratic	.88	4.15	6.29	111.98 p<.0001
Trustworthy	2.19	3.52	5.17	26.95 p<.0001
Negotiate	1.84	4.82	5.77	50.16 p<.0001

The 'suppressive' effect of emotion – which should be expressed as an interaction between the emotive manipulation and the valence of the set – was obtained along all these dimensions. Specifically, the proposition suggests that when we compare the interpretation of the three sets of information that have different valences, the

emotive manipulation would lead to a small gap between the impressions based on positive information than those based on negative information as compared to parallel gaps generated by control or affect induced subjects. Thus, the emotion carries an extra amount of "information" that overrides in part the message of the items describing the target nation. Table 3 illustrates the gap between the impression based on positive and negative information sets generated by the emotive subjects and those in the other two conditions (affect and control) along each of the above mentioned dimensions (the mixed sets were always an in between value).

Table 3. The Gap in Inferences and Judgments of the Target Nation (Between Positive and Negatively Valenced Information Sets in the Different Emotive States)

Dimension	Negative Emotion			Negative Affect			Control			
	Pos. Items	Neg. Items	**The Gap**	Pos. Items	Neg. Items	**The Gap**	Pos. Items	Neg. Items	**The Gap**	F(4,91) Interaction
Similar	4.36	2.39	**1.97**	5.92	1.22	**4.70**	7.00	1.90	**5.10**	4.23 p<.005
Democratic	5.24	1.15	**4.09**	6.75	.56	**6.19**	7.33	.80	**6.53**	5.78 p<.0005
Trustworthy	4.07	1.92	**2.15**	5.50	1.67	**3.83**	6.44	3.00	**3.44**	3.24 p<.02
Negotiate	5.14	1.92	**3.22**	6.50	2.44	**4.06**	5.78	1.20	**4.58**	4.90 p<.005

The smaller gaps in the emotive condition are the source for the statistically significant interaction between the experimental factors and specifically support this contention. It is not that the valence of information is totally ignored. The main effect of the information sets validates the idea that the information matters. Yet the pattern of the interaction implies that emotion - rather than affect - decreases the reliance on the information or effects the interpretation (mediated by attention). Figure 7 further shows

this dampening effect of emotion on cognitions. This interaction between the emotional state and cognitions—particularly the suppressive effect of negative emotions on inferences made by subjects viewing *both* positive and negative sets of information—highlights not only the effect of emotion on interpretation of events (through the processing of attribution and inference), but also suggests a difference in this regard between affect and emotion. Figure 6 provides a visual representation of this finding that the size of difference in inferences for subjects in the emotion condition was smaller than the size of difference in inferences for subjects in the affect condition. Thus negative affect provided wider variance in inferences about Manovans than did the negative emotional state.

Figure 6. Difference in Mean Inferences between Positive and Negative Sets of Information
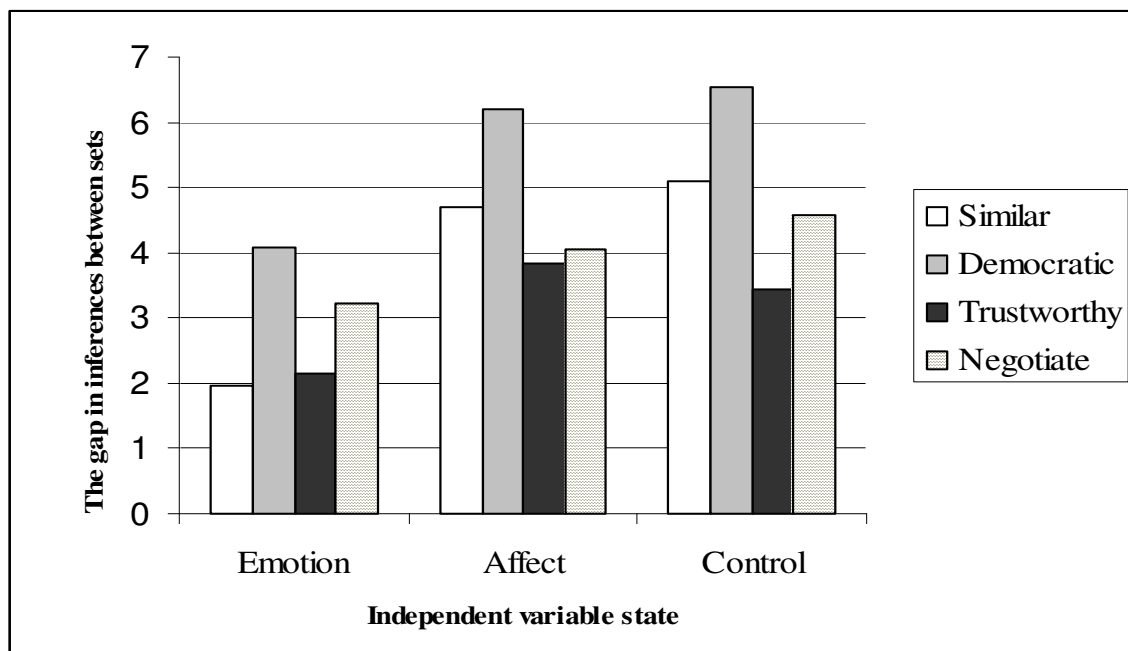
Whereas our findings here in regards to negative affect support those of Marcus' and colleagues (1988, 2000; Marcus and Mackuen 1993; Marcus et al. 1998) that negative affect increases vigilance, our findings in regards to emotion are different: emotions decreased vigilance in this case. Even more so, it should be noted that these findings provide initial support for the non-linear difference, or step-level increase, between emotion and affect. While we are unable to ascertain this nonlinearity statistically from these findings given the categorical nature of the dependent variable, they support the hypothesis that the difference between the effects of emotion and affect is substantially greater than the difference between an affective state and the control state. Future research will have to employ additional methodologies and techniques to further test for non-linearity.

Finally, the above findings are interesting because when we explore the main-effects of the emotive manipulation on the judgments of the target nation we obtain only two significant main-effects. The subjects in the negative emotion condition attributed less of a likelihood that Manova would resort to negotiation (M=3.33) than did subjects in the condition of negative affect (M=5.64) or control (M=3.71 $F_{(2,91)}$=15.09 p<.0001, In addition, emotion led subjects to perceive Manova as less similar (M=3.13) than under conditions of affect (M=4.21) and control (M=4.04), $F_{(2,91)}$=3.38 p<.05. Along the other dimensions the emotive state lowered evaluations but did not do so in a significantly different manner from other conditions.

DISCUSSION

In this section it was argued that emotions have a different status and different effects from affect. It is possible to argue that an intensity gradient was merely introduced in the emotive dimension, and thus the manipulation, for instance, is just such a case. However, while the manipulation is definitely an increase in grade, the expected changes should represent a qualitative change. In terms of processing parameters we find demonstrated changes on the influence of emotion and affect. The findings are, however, less consistent with regard to their effects on interpretation. It is expected that there should be even stronger results in cases requiring the need to make a decision.

An interesting note to make of the findings reported here concerns the interaction of mixed information sets and the emotional state. The mixed information set consisted of an equal number of positive and negative items of information and was thus viewed as being cognitively more demanding to deal with than more consistent sets of negative and positive information. Nonetheless, our results showed that subjects having to make sense of this more complicated collection of information in the mixed set recalled a higher proportion of negative information. Only subjects in the emotion condition displayed this thematic bias in their recall. Overall, our results suggest a trend towards supportive findings for subjects dealing with mixed sets of information and less of a tendency for similarly supportive findings in either the positive or negative information sets. With some exceptions, conditions of mixed-information in conjunction with emotional state yielded supportive findings. This may be considered a finding in itself as the mixed

information sets are viewed as being less "predictable" in real world terms and thus more demanding in terms of effort.

Some findings are not as supportive and more problematic. Why was the emotion condition associated with greater processing time of negative information as compared to negative affect? The model clearly expects the opposite effect. One underlying trend may be an interaction between congruency of emotion and information. It is possible that the emotional system "slows down" at times when dealing with consistent information, possibly in order to strengthen the link between feelings of threat and associative cognitions. On the other hand, inconsistent or more complicated information (i.e. mixed) must be dealt with more quickly in order to stave off any potential threat.

It should also be noted that our results supported the idea of a dampening or standardizing effect of emotion. When we compared the inferences derived from the three sets of information with different valences, the emotional state led to a small "gap" between inferences based on positive as opposed to negative information. Our interpretation of this important finding is that emotion is having a "standardizing" effect on the way people make sense of events. In this case, it resulted in inferences of subjects who viewed both positive and negative sets of information being "closer" to each other than individuals who had been in the negative affect condition.

This research represents the first attempt of this research program to inter-relate affect, emotion and cognition in the study of international relations and particularly in foreign policy decision making. This task is difficult given the understanding that even the study of cognition is little well-received within the field, and that the utility of

experimental methods is often questioned. However, recent events have made political scientists more cognizant of symbolic aspects of international relations as well as the need to include emotions in the equation. This approach and experiment are unique in that emotion and affect are juxtaposed against each other. The findings in terms of affect are in agreement with Marcus and his colleagues: negative affect has the potential to increase vigilant attention to the environment. However, in accord with ancient Greek logic, the claim can also be made that hate and anger and probably fear 'blind' the individual.

However, while our findings here report the effects of the independent variable state on the interpretation of foreign policy events, it is necessary to push the analysis further. If the definition of the situation—particularly that situational form referred to as the crisis situation (Hermann 1969a, 1969b; Billings and Hermann 1998)—is linked to different policy choices, then the emotional state of the perceiver may be an important mediating variable linking situational interpretation to choice. If, as the model suggests here, the presence of an emotional state interacts with cognitions about the environment and thus leads to biases in interpretation, it stands to reason that choices about "what ought to be done" will be thus linked to similar processes. Snyder, Bruck and Sapin (2002:72) note, "certain objective properties of a situation will be partly responsible for the reactions and orientations of the decision-makers and that assignment of properties to a situation by the decision-makers is indicative of clues to *the rule which may have governed their particular responses*" [emphasis mine]. The LoTES model suggests, however, that the rule or set of rules which may govern particular responses is not

limited to the objective properties of a situation but is also implicated by the *subjective*, i.e. felt, properties of a situation. Given this connection to interpretation, the next logical variable of inquiry is that of choice in relation to a political problem. The following section discusses results of an experiment designed to address the effects of the independent variable states of emotion and affect on choice pertaining to a political problem.

EXPERIMENT 2

Ample research suggests the importance of understanding the processes used by individuals to arrive at a decision (Snyder et al. 2002; Fiske and Taylor 1991). Mintz and Geva (1997) note that knowing the decision processes used by individuals helps analysts understand why certain choices are made over others. As noted previously, conventional foreign policy decision making research has been characterized by a tension between focusing on underlying cognitive processes inherent within the decision making context in favor of theoretical approaches which stress adherence to rationality assumptions. Adherence to assumptions of rationality sacrifice process validity for the sake of outcome validity (ibid). However, if the emotional content of information used by decision makers influences the manner in which political events are interpreted and perceived, then it is no leap of faith to suggest that emotions influence foreign policy choices.

This section reports results of an experiment design to test the general proposition that negative emotions influence decision making by introducing a thematic effect on the amount and type of information used by individuals to arrive at a choice. As suggested in Section 5, a strong difference – a dramatic step – exists between a negative affective evaluation and the existence or occurrence of negative emotion. The theory put forth in this research program holds that this non-linear step accounts not only for the interpretation of information, but also the differentiation in information processing and choice.

Three main hypotheses about information processing can be derived from the propositions noted earlier. First, in contrast to negative affect, the influence of negative emotions in the context of a foreign policy choice should be seen in fewer items of information accessed and less processing time devoted to new information. Second, the influence of negative emotions in the context of a foreign policy choice should be seen in less attention to new information as measured by recall of items. Third, the theory expects an interaction between an emotive state of the perceiver and the valence of information he or she has to interpret. This interaction should be seen in a difference between the number of positive vs. negative items processed by individuals. This difference will be larger for those who have negative affect than individuals who have negative emotion or no emotion. Similarly, the difference between the amount of time spent processing positive vs. negative items by individuals who have negative affect will be larger than that processed by individuals who have negative emotion or no emotion. A brief reiteration of the theoretical underpinning of these hypotheses follows.

The *LoTES* model suggests that negative affect is either <u>reinforced</u> by exposure to negative information about the actor, or <u>modified</u> by exposure to positive information about the actor. Thus, individuals who hold a negative evaluation (i.e. negative affect) of a target, but who have been subsequently exposed to positive (i.e. dissonant) information about that target should spend more time processing information about the characteristics of that actor, and recall fewer negative items of information, than individuals who experience negative affect toward a target but who have been subsequently exposed to negative information about that target.

On the other hand, because the model suggests that negative emotions are not altered by exposure to positive or negative information about an actor, individuals experiencing negative emotion toward a target, but who have subsequently been exposed to positive information about that target should make as many negative inferences and attributions about the characteristics of that actor, and recall as many negative items of information, as individuals who experience negative emotion toward a target and who have subsequently been exposed to negative information about that target. Thus, the negative emotional state dissipates the impact of valenced information, while negative affect may enhance it.

METHOD

To test the hypotheses, the experimental scenario discussed in the previous section was modified. Again, this scenario concerns the fictitious island nation of Manova and the taking of American and foreign hostages at the US embassy by armed local rioters, an attempt by US soldiers to rescue the hostages, and the subsequent execution of some American hostages. As conducted in the first experiment, a computerized process tracing instrument was employed (Geva et al. 2000; Geva and Skorick 1999). The program presents written, audio, and visual information in a controlled setting while recording subjects behavior.

Subjects and Design

102 upper division college students from Texas A&M University participated in the main phase of the experiment. Subjects were randomly assigned to one of nine experimental conditions.

The experiment was structured as a 3 x 3 between groups factorial design. The manipulated factors were: (a) affective/emotional manipulation (video clip, written text, or none), and (b) the valence of the information describing the target nation (positive, negative and mixed). The dependent variables addressed information processing parameters (processing time and information recall).

Instrument and Procedure

The Manova case: All subjects were informed that they would be exposed to events ongoing between the US and Manova and would be asked to *make some sense* out of what is going on in Manova. Following this, all subjects were introduced to the Manovan crisis via the following description:

> Manova is a country on an island in the Gulf of Guinea. Since the end of World War 2, Manova has been a member of the Organization of African States. It has historically had a good relationship with the United States and, since 1973, has been an important port for US Naval ships. Because of its strategic location, Manova has allowed US vessels to use its ports for refueling, repair, and crew leisure.

> An agreement reached in 1995 with the Foreign Affairs Office of Manova allowed some US and foreign personnel to establish temporary residence in Manova. However, a recent measure in the Manovan elections called for the removal of US military housing from Manova. Though the ballot measure lost, a number of Manovans protested against the US presence, some of them demanding that the Manovan government no longer allow access to US Naval ships in its ports. Other Manovan officials have publicly stated that these protesters are a radical minority.

> This morning you have learned that civil unrest has broken out in the capital of Manova. Initial details are sketchy but it appears that some US military and embassy personnel, as well as a small number of foreign diplomats, are being held hostage at an unknown location in the capital of Manova.

The Affective/Emotive Manipulation

Emotional manipulation was done via the use of an audio visual account of the events unfolding in Manova and was fashioned after a typical "on the scene" news report. The short video (approximately one minute in length) depicted riots by Manovans, described the execution of American hostages, and showed American bodies being dragged through the streets by reveling Manovans.[11]

The affective manipulation was introduced using a written account of the same event, i.e. the audio portion in writing, without accompanying video. The text of the affective manipulation read:

> Events in Manova took a dramatic turn today as protests over the US and Western presence in Manova turned violent. As early as yesterday, bands of armed men were seen roaming through the streets of the capital, calling for an uprising against the current government and all Western nations. Then, without warning, the city seemed to explode this morning as militia groups began cruising through the city destroying American, British, and French business offices and shooting at suspected foreigners. However, the most dramatic event occurred hours ago as armed groups attempted to storm the US embassy and take hostages. In fact, it appears that they were initially successful as a small group of US and foreign diplomats was captured at the outset. A US marine unit was dispatched to rescue the Americans and was able to do so only after a fierce gun battle with armed Manovans. However, several other Americans and foreigners were not rescued and were executed by Manovan crowds. Afterward, their bodies were dragged through the streets by cheering Manovans. At the moment the State Department has no comment on this situation.

A control condition was included wherein which subjects received neither a written or audio/visual story, but instead skipped directly to the information series. As

reported in the previous section, these manipulations were pre-tested and shown to be effective (p. 63).

The Valence of the Information

Following the emotional/affective manipulation, subjects were informed that, "As a context in which to gain better insight into what is happening in Manova, you can now view additional information about Manova gathered from news and governmental sources." Subjects were randomly assigned to review one of three possible information sets, a positive, negative, or mixed set of information. Each set consisted of 22 items of information. The positive set consisted of 18 positive and 4 negative items of information. Items were considered positive if they suggested that Manova or Manovans were similar to the US or sympathetic to US interests. Examples included, "Recently unclassified US intelligence documents indicate that the Manovan diplomatic corps helped US agents during times of peak Cold War hostilities," and "Manova has long stood in support of the US role in the Organization of South Aegean States and has regularly voted in support of US interests in the region." The negative set consisted of 18 negative and 4 positive items of information. Items were considered positive if they suggested that Manova or Manovans were dissimilar to the US or antagonistic to US interests. Examples included, "In recent years, the Manovan military has been accused by opposition and Western human rights agencies of corruption and brutality against its citizens," and "The Manovan government has recently, and without explanation, expelled all foreign western missionaries and has seized all of their property and belongings, giving the westerners only 24 hours to leave the country or face detention

and arrest." The mixed set consisted of 11 positive and 11 negative items of information. A pretest of the effectiveness of the valence manipulation has also been previously reported (p. 63).

Procedure

Subjects were seated at individual computer terminals in the computer lab of the political science department and were instructed in the use of the computer application before being asked to begin reviewing information. In accordance with our goal of testing hypotheses related to the processing of information, subjects were informed at the start of the experiment that their task was to *make a decision* about what the United States should do in Manova. In this scenario, the alternatives were presented as either pursuing negotiations with the Manovans to secure the release of hostages or use US military force to secure the hostages' release. The computerized software guided subjects through each section of the experiment. Following the affective/emotional manipulation, subjects were presented with the additional information as described above. The program allowed subjects to review an item of information and then, by clicking on the button labeled "next item," review a new item. However, contrary to the first experiment, subjects were not required to review all items of information and could make a decision at anytime after the first item of information. Decisions were made by clicking on the button labeled "use force" or "negotiate." Making a decision resulted in the subjects moving immediately to the final section of the experiment wherein which dependent variable measures were introduced. Upon completion of the experiment, all subjects were debriefed about the theoretical and empirical context of the experiment.

RESULTS

The impetus of this experiment is to both illustrate the effects of emotion on political choice and differentiate between affective and emotive influences on information processing within the context of an international crisis. The findings reported in this regard address the effects of affect and emotion on processing parameters.

Process Parameters

Choice

Choice results confirm the model's expectation that the presence of emotional stimuli outweighs the effect of informational valence. In this case we find that regardless of the effect of positive or negative information about the target actor, subjects in the emotional condition were far more likely to choose force than any other option (M=.639), [F(4,92)=8.65 p <.001].   Subjects in the affective condition were almost as likely to choose the use of force as they were to choose negotiation (M=.483), while subjects in the control condition invariably suggested negotiation over force (M=.205). The valence of the information about the target actor had no effect on subjects' decision for force or negotiation. Figure 7 displays the results of the emotional/affective manipulation on choice. While these results are unsurprising, they confirm the initial suggestion that emotional content provides a powerful influence on information processing. The question remains, however, as to whether or not the

suggested thematic effect on content and capacity underlies this choice mechanism.

Figure 7. Proportion Choosing Force as a Function of Experimental Condition
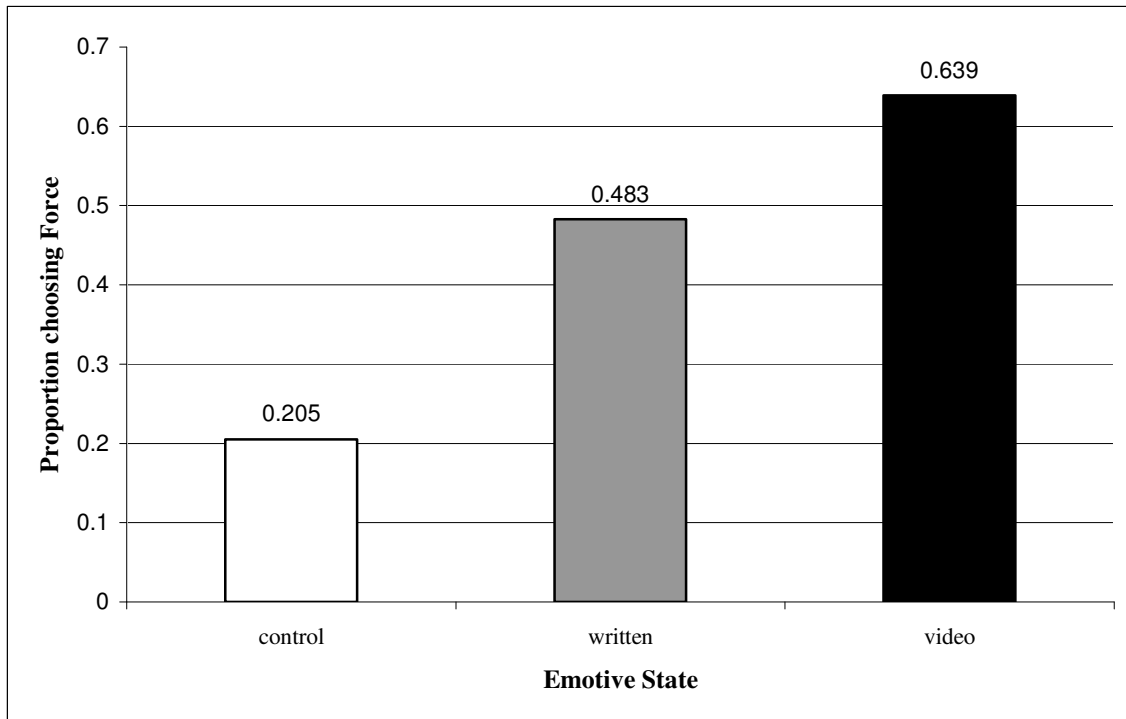
Number of Items Accessed

Because subjects were allowed to make a policy choice at any time, and were not required to view all the items of information, a main effect of emotive state was expected. However the results did not conform to that expectation. Instead the results suggest an interaction of the emotional and informational manipulations. In the mixed information set, in which subjects have access to an equal number of positive and negative pieces of information about the target state, the emotion condition (video clip) resulted in fewer items accessed (M=17.25), as compared to the affective condition

(written story) (M=21), and the control condition (M=20.9), $[F_{(4,92)}=2.80$ p <.05].

Figure 8 depicts these results.

Figure 8. Number of Items Accessed as a Function of Experimental Condition
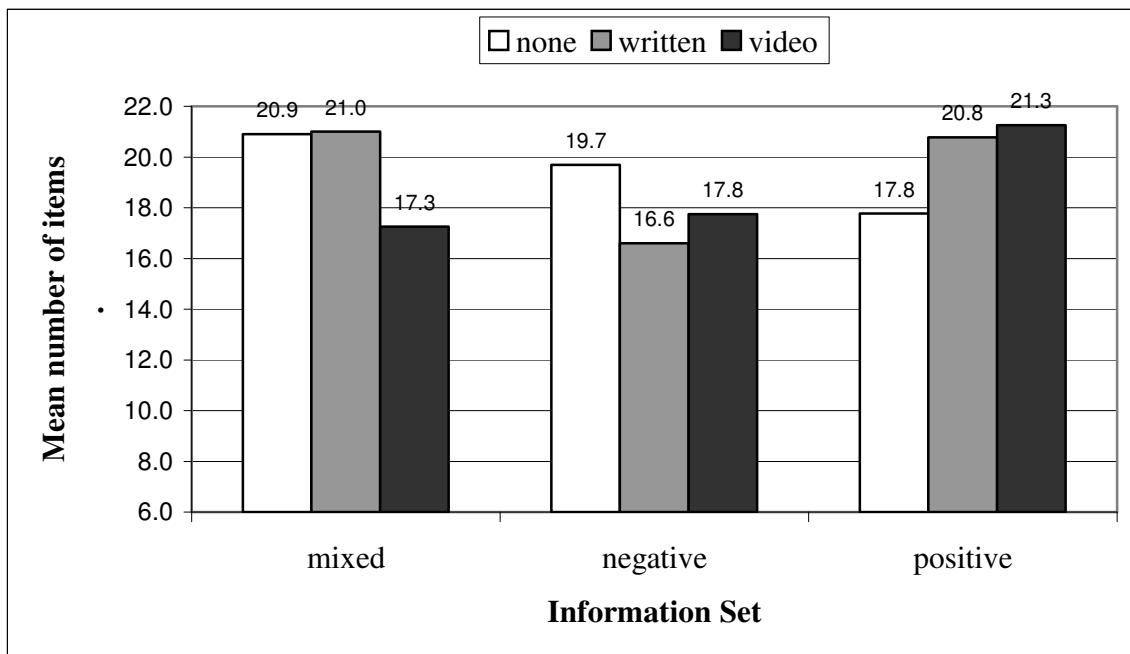
Within the positive information set subjects who received the emotional manipulation looked at slightly more items of information than all others. In this condition, where the resulting information runs contrary to the emotional state of the individual, more information is required in order to make sense of the ongoing events. Regardless, it is entirely possible for subjects to review any number of items of information without actually incorporating those items into any decisional process. Thus it becomes important to take time into consideration.

Dedicated Attention: Total Time

On average, subjects spent 2.3 minutes (139 seconds) reviewing items of information. The average amount of time subjects spent on each item of information was 7.3 seconds. In terms of differences between experimental groups, the 3 x 3 ANOVA yielded the following results. First, we found a statistically significant two-way interaction of emotive state and type of information processed on total time [$F(4,92)=4.45$ $p<.05$]. In this case, the emotion condition (video clip) generated the slowest processing time (M=165.03 sec) when processing the positive information than did the affective treatment (M=118.29 sec), and the control conditions (M=110.7). Here we see a continuation of the trend where subjects who have been subjected to the emotional stimulus struggle to make sense of an overwhelmingly positive list of information about the target state. Contrasted with the mixed and negative information set conditions, where subjects who viewed the emotional stimulus spent the least amount of time viewing additional information about the target state, the results suggest that subjects who face information which is *compatible* with a pre-existing emotional state tend to rely more on how they feel about the situation than they do on the information itself. This trend is compatible with our expectations. The pattern of the interaction is illustrated in Figure 9.

Figure 9. Processing Time as a Function of Experimental Condition
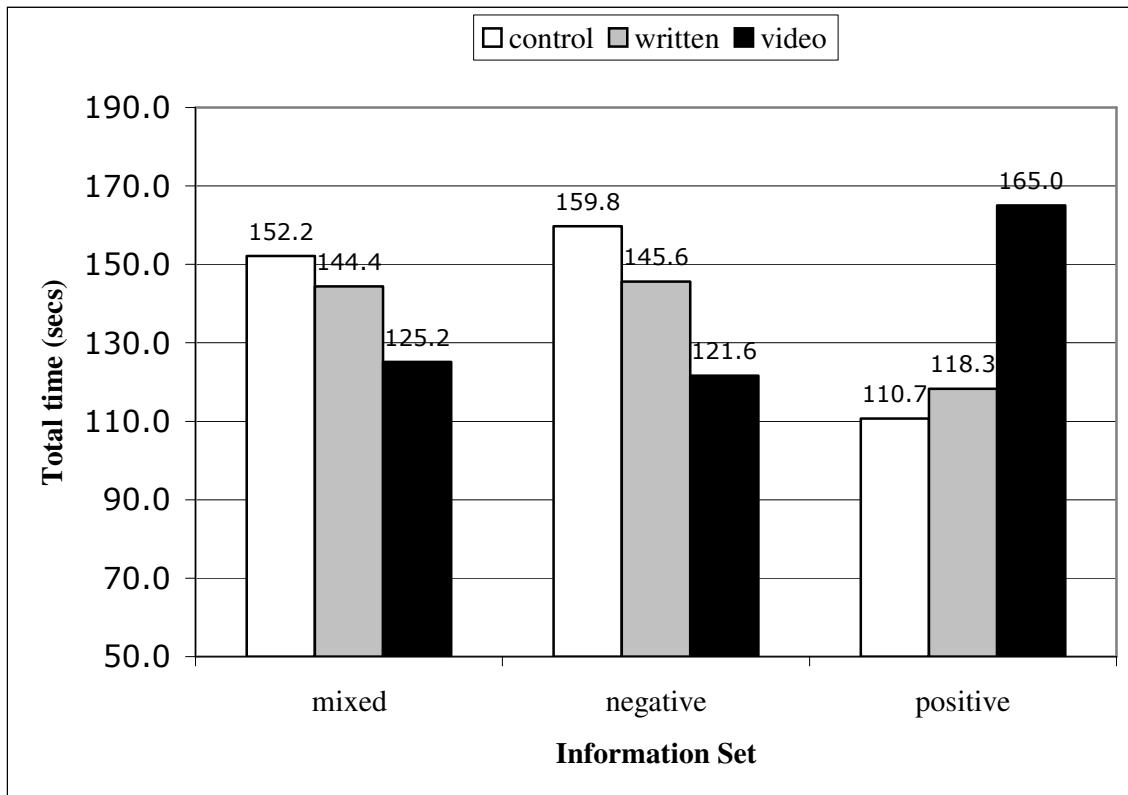
Unforewarned Free Recall

Unforewarned free recall was used as an indirect measure of how much attention subjects paid to the information they have seen. Merely accessing information does not indicate that this information has some effect on decision making processes (Geva et al. 2000). As noted previously, the introduction of anger or hatred into the decisional process is hypothesized to restrict the amount of available attention subjects are able to focus on relevant details. The result should be an effect in which emotionally congruent information (i.e. negative) is recalled at a higher rate than positive information.

Overall, recall was not high (about 6 of 22 items) and was not significant at $p < .05$. Generally, both the control (M=6.3) and negative emotion conditions (M=6.4) led

to slightly more recall than did the negative affect condition (M=5.8). We find a similarly non-significant trend looking at the information set, where the subjects in mixed and negative information conditions recalled slightly more information than did subjects in the positive information condition.

Turning to a different analysis of recall, we examined whether the emotive states influenced differently the retrieval of positive versus negative items from the information sets. Since each of the three sets contained a different distribution of positive and negative items, the proportion of accurate recall of positive and negative items was analyzed in relation to their number in a specific set. Thus, as in the previous experiment, the proportion of recall of a particular valence of items served as the repeated measure in a 3 x 3 x 2 ANOVA.

The first significant finding in this analysis is the main-effect of the valence of items sub-category. The participants recalled a higher proportion of negative items (M=.44) than positive items (M=.28), $F(1,92)=17.12$ $p<.0001$. The second finding pertains to the interaction of the emotion/affective manipulation with the items' sub-category (positive vs. negative), $[F(2,92)=27.118$ $p<.0001]$. Figure 10 illustrates the pattern.

Figure 10. Proportion of Items Recalled as a Function of Emotional/Affective Manipulation.
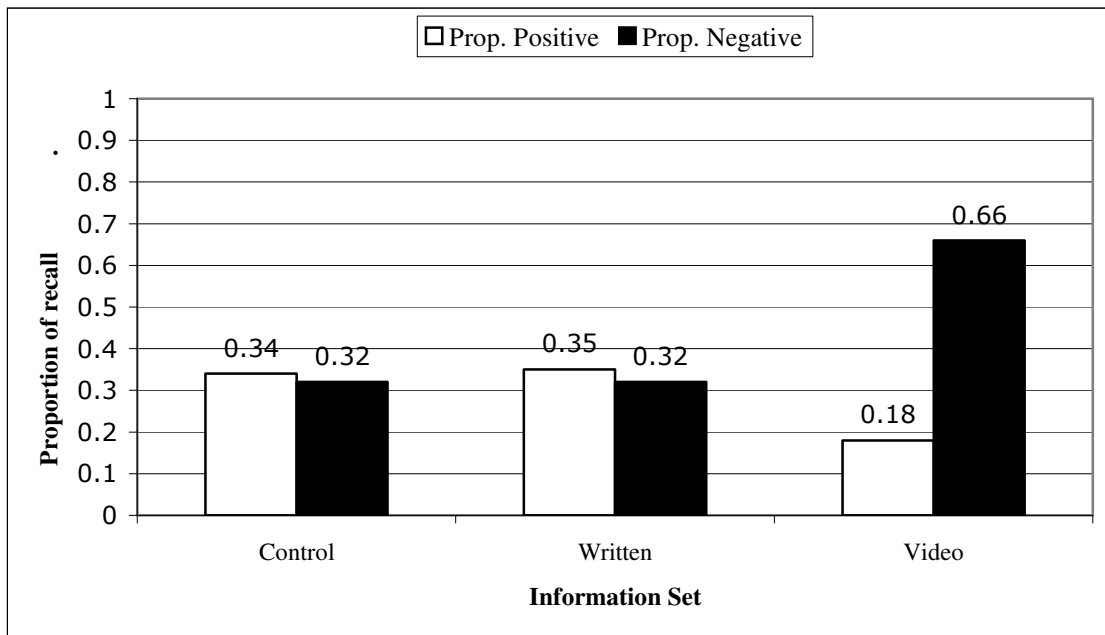
Within both the control and affective (i.e. written) conditions we see a similar pattern of recall. In both cases the proportions are relatively similar, with a slightly higher rate of recall of positive information. Contrary to results from the first experiment where the 'emotional' subject paid less attention to "confirming" negative information than did 'affective' subjects, here we see a striking increase in the rate of recall of negative information. Contrasted with the lowest rate of recall for *positive* information among the three conditions, this significant finding corresponds with the hypothesis suggesting a dramatic step in processing behavior as a function of emotional context. Here we see strong evidence to support the claim that emotions introduce a thematic bias in information processing, both in terms of content (negative information) and capacity.

The results also show a significant three-way interaction between the emotive state, the information set, and the specific category of recall [F(4,91)=3.75 p<.01]. Figure 11 presents a chart of this interaction.

Figure 11. Proportion of Items Recalled as a Function of Information Valence and Emotional/Affective Manipulation
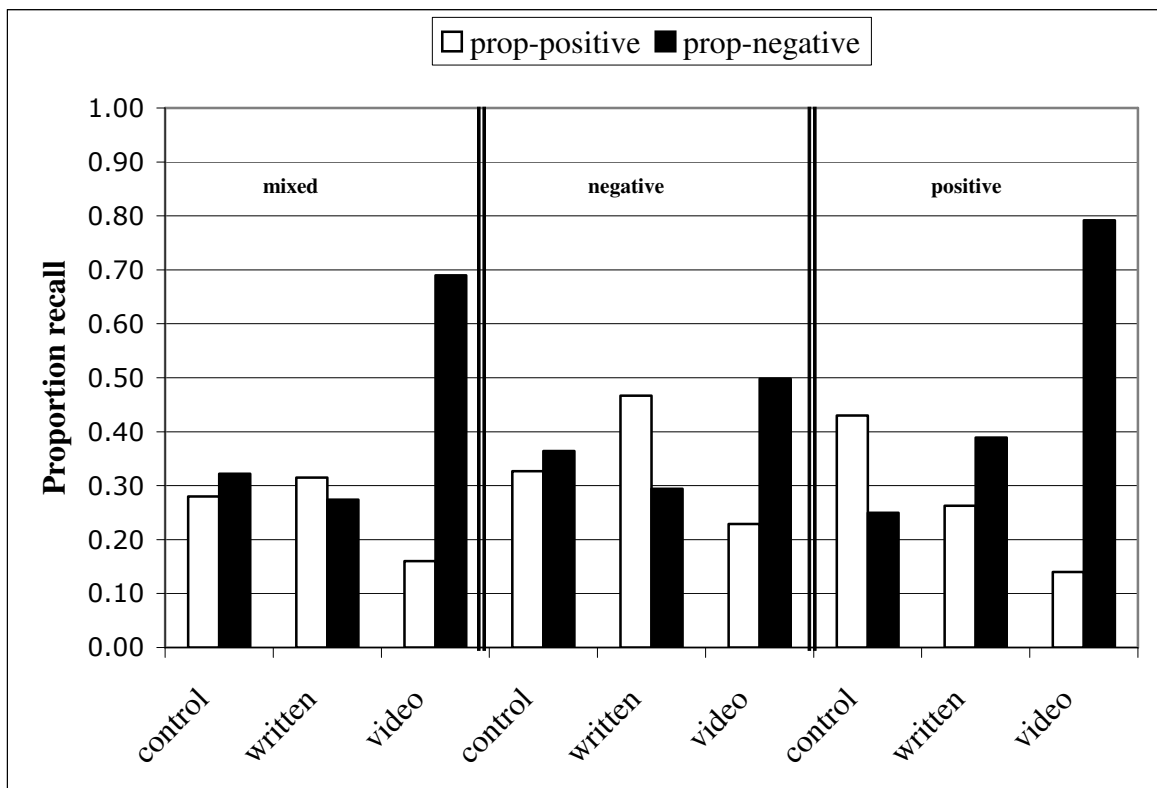
As found in the previous experiment, when the information set is mixed (and thus cognitively more demanding) only participants in a negative emotional state express a confirming thematic bias and tend to recall a higher proportion of negative than positive items. Again, we do not find a similar thematic bias for control and the affect induced participants. This thematic bias is specifically hypothesized in the model.

While the rate of recall of negative information was highest across all conditions for subjects exposed to the emotional video clip, among these same subjects that rate of recall of negative information is actually lowest for those subjects in the negative information condition. Subjects who saw the video clip (and thus began the information processing task in an emotional state) and who were then presented with a relatively consistent stream of negative information actually recalled a smaller proportion of negative items than did subjects who saw a stream of relatively positive information or even mixed information. We interpret this to suggest that subjects in the emotional condition, upon exposure to a set of negative information, pay less attention to such confirmatory information, but instead a struck by disconfirming information. This effect is evidenced in the fact that the same subjects in the negative information condition recalled a slightly higher amount of positive information than did subjects in the positive or mixed information conditions.

A further finding supports the distinction made here between affect and emotion and the suggestion that subjects in an evaluative/affective mode use information differently than do subjects who are experiencing negative emotions of anger or hate. For subjects within the affective (i.e. written) conditions of positive or negative information, we find a higher rate of recall of disconfirming information than confirming. Thus, subjects in the affective conditions who were presented with positive information tended to recall a higher rate of negative information, whereas 'affective' subjects presented with negative information tended to recall a higher rate of positive information. This would support the claim that disconfirming information is used to

update an affective state, thus leading to a higher rate of recall of such inconsistent data. Contrast this finding with 'emotional' subjects who are faced with information that is overwhelmingly inconsistent with their feeling state (positive information) or generally inconsistent and more cognitively demanding (mixed information set). For such students, attention to and recall of negative information served to reinforce an existing emotional state, thus their higher rates of overall recall.

DISCUSSION

As noted previously, the purpose of this research program is to investigate our claim that 1) emotions are important process variables within the context of a foreign policy problem and 2) that emotions have a different status and different effects from affect. The findings reported here suggest that these claims hold some merit. Furthermore, the findings of emotional effects within the context of a foreign policy choice problem confirm several hypotheses derived from the LoTES model. First, the overall effect of emotional content on foreign policy decision making is to introduce a thematic effect on the content and capacity of information used to arrive at a choice or decision. Generalizing from our theory to the political arena, it becomes more evident that the emotional content of political problems may be far stronger force within the public sphere than has been previously recognized. Feelings related to specific foreign policy actors and issues provide critical information pieces to individuals seeking to either make some sense out of a particular foreign policy issue, or to decide what he or she "thinks" about the problem. Given the general claims of this theory of emotions in

foreign policy, emotional problems in fact become far more intractable and inflexible than might have ever been previously suggested. Whereas affective evaluations of some significant political stimulus may be amenable to updating and change over time as new information arises, the ability of individuals to do so in the face of emotions of anger or hate seems remote at best.

Overall our findings here are supportive of our hypotheses relating a difference in information processing as a function of emotive state. Choice was strongly influenced by the emotion manipulation. Subjects in the emotional condition were far more likely to choose force than any other option. On the other hand, the valence of the information about the target actor had no effect on subjects' decisions for force or negotiation. The amount of attention paid to the information as measured by recall was also supportive of our hypotheses and in general confirmed the results of the previous experiment in which only participants in a negative emotional state expressed a confirming thematic bias and tended to recall a higher proportion of negative than positive items. As was the case in the previous experiment, we do not find a similar thematic bias for control and the affect induced participants.

On the other hand some findings here are not as supporting. Despite the fact that we expected a main effect of emotion on the number of items subjects would access, the results reported here showed otherwise. Contrary to the previous experiment in which mixed information resulted in more time spent trying to "make sense" of the inconsistent set, here we found that the interaction between the emotion condition and the mixed set of information resulted in fewer items of information being accessed than either the

affective or control conditions. Additionally, we must ask why subjects in the emotion condition spent more time viewing positive information but very little time viewing negative information. Both of these results are equally difficult to interpret in light of the specific hypotheses which suggest that the mixed or incongruous set should lead to more information being accessed, and that the emotion condition should result in a similar amount of time spent viewing both positive and negative information.

One possible explanation may be the context of the experiment. In this case, subjects were required to not only make sense of information, but also to use that information for a specific policy choice, i.e. what they believed should be done. The choice requirement may have resulted in an additional emphasis on positive, or explicitly inconsistent, information. Thus, information of a mixed nature was processed in a similar fashion as information of a negative—or consistent—nature. In both cases, it may be that such information was dealt with swiftly in order to facilitate choice. On the other hand, the choice requirement may have made more salient the effect of positive information thus resulting in additional time spent viewing such information by the subjects in question. This remains a rather puzzling finding, particularly in light of the fact that a similar finding was not reproduced in the earlier experiment. Additional research in this regard will necessitate addressing the differential effects of emotional state depending upon the task (interpretation versus choice) as well as the influence of positive and inconsistent information within that task.

It should be noted, however, that the findings reported here are generally in agreement with those reported by Marcus and colleagues, that negative emotions

increase vigilance to negative information. The findings of this experiment correspond more to those of Marcus and colleagues than the findings of the previous experiment. However we find in our experiment that the use of information used by such subjects is mediated by the cognitive effort demanded of them in making sense of some problem en route to a choice. The more cognitively demanding, or emotionally incongruent, the information, the more an effect was found on information processing.

CASE STUDY

The experimental findings reported thus far suggest that a negative emotional state may color perceptions of international events by influencing the manner in which information relevant to foreign policy is perceived and interpreted. Furthermore, the findings suggest that negative emotions influence the processing of information pursuant to a foreign policy choice. However, an important question to ask at this point relates to how the abstractions of emotion and affect work in the real political world, outside the realm of the laboratory. If we are to establish the case that emotions are an important component of the foreign policy decision making calculus, then it is certainly necessary to investigate whether or not this model can be illustrated within the context of foreign policy events.

By looking at case histories of emotion-evoking foreign policy events, we are able to shed further light on the influence of emotion in international relations. If carefully selected and evaluated with precision, case comparisons should allow us to ascertain whether the hypotheses tested and confirmed within the previously discussed experiments might be analogous to real world responses of individuals (c.f. George 1979). The model presented here suggests that emotion and affect have differential effects on the interpretation of foreign policy events and the processing of information about those events. Thus, in order to select cases for this form of analysis, it becomes necessary to choose an incident or incidents of which the public has had to interpret, or makes sense of, foreign policy information. Furthermore, in order to evaluate the

strength or weaknesses of the model presented here, one case or incident should be characterized by negative emotions whereas the comparison case should be characterized by negative affect. In this approach, selection of appropriate cases on the basis of the dependent variable, an approach similar to that found in comparative political analysis (Lijphart 1971, 1975; Meckstroth 1975; Przeworski and Teune 1970).

Two cases which fit these requirements are the first World Trade Center bombing of February 1993, and the second attack on the World Trade Center in September of 2001. It is assumed from the outset that the first attack generated negative affect within a large segment of the US population, whereas the second attack generated negative emotion. From this basis it is possible to compare the two cases by looking closely at differences in how the general public made sense of and responded to these events. The benefit underlying this methodology lies in the fact that responses to these two cases, rather than being artificially invoked by the research in an experimental setting, were spontaneously generated from the perception of the two incidents in question. A comparison of responses to the first World Trade Center bombing and the second attack on the WTC provides 'real life' insight and evidence of the effects emotions will and do have on public perceptions of international events.

It has been suggested so far that emotions influence the interpretation and processing of foreign policy information by restricting the content and capacity of the type of information used in such instances. This influence of emotion on the thematic nature of information used to make sense of foreign policy, and on the amount of information used, should be evident by analyzing the type of statements made at the

public level about these two important foreign policy events. Similar approaches to gleaning the beliefs of individuals from written statements have been used by Margaret Hermann and colleagues. Hermann's analysis of political leader's traits proceeds under the assumption that the frequency with which leaders use certain words and phrases connotes an underlying saliency to the concepts employed (1976, 1977). While Hermann's study focuses on assessing underlying characteristics which influence the governing behavior of political leaders, the methodology employed seems particularly relevant to our assessment of public attitudes towards international events.

In the same way that leaders' orientations toward the world, themselves, and other nations can be discerned from public statements, so to should we be able to tap into similar orientations of public individuals through their writings published in newspapers. Similar uses of content analysis have been used by Walker and colleagues to map the operational codes of leaders (Walker 1977, 1983; Walker et al. 1998, 1999). Coding of such materials implies an "assessment-at-a-distance" in order to ascertain general patterns of thought individuals hold toward the world and their role within it (Scully and Kille 1998). In this case, such assessment focuses on uncovering underlying orientations held by individuals towards not only those responsible for two separate NY attacks, but also towards their own in-group.

Regional newspapers are a source of information about how the public has responded to a foreign policy event. Editorials and published letters to newspapers provide insight into how the public is making sense of or interpreting ongoing political affairs. Within editorials and the published letters of private citizens, it should be

possible to clearly ascertain differences in language used to describe personal feelings towards either WTC1 or 9/11 as well as differentiation in the cognitive complexity of statements made about these foreign policy events. While this source of information will not provide us with an ideal or pure picture of the influence of emotions on the interpretation and processing of foreign policy information, it should nonetheless give further insight into the real world workings of what we have discovered thus far in the previous experiments.

At this point it may be important to introduce within this analysis an additional variable which may have an interactive effect on the dependent variable. It is possible that geographic distance from the attacks on the World Trade Center in 1993 and 2001 may have mediated the presence or absence of the emotional state and thus produced an interactive effect on the dependent variables of cognitive complexity and inferential/interpretive statements (discussed below). The addition of this variable allows for the possibility that individuals close to the attacks within both time periods may have perceived information about the events as more salient than those who lived at a further distance. Thus, individuals living close to New York may have been more likely to perceive a threatening situation and thus made more inferential statements about the intentions of the perpetrators of both attacks.

Based upon the propositions about emotions and foreign policy as discussed in an earlier section, it is suggested that the following differences should be apparent when analyzing these two cases:

A. Inferential or interpretive statements

Vertzberger (1990:326-327) notes that "...knowledge that is embedded in traumatic historical events, that contains a strong affective element, and that becomes a source of central beliefs is immensely difficult to refute or falsify. It *encourages a continuing search for validating evidence* [emphasis mine] and has stereotypic effects with regard to the expected behavior of other actors." Because emotions influence the amount of information used to make sense of an event, and the type of information used, differences in expressions describing the perpetrators of an event, or the victims themselves, should be apparent between the two cases. Negative emotion should be evident in an increase in the use of and reliance on schematic/thematic images of the perpetrators and the victims such as "good v. evil." Individuals experiencing an emotional response to a foreign policy event should be more likely to resort to an enemy stereotype to categorize the attackers while describing their own country in idealistic and moral terms.

B. Cognitive Complexity

Because emotions restrict the amount of information used to make sense of a foreign policy event, differentiation of expression should be apparent between the two cases. Negative emotion should be evident in a decrease in degree of differentiation and integration of information about foreign policy and the stimulus event. A decrease in cognitive complexity should be evident in statements related to the 9/11 case, but not the WTC1 case.

METHOD

Sources

25 regional newspapers selected from a pool of newspapers which are indexed in full text via *LexisNexis Academic and Library Solutions*. LexisNexis is a publisher of research and reference publications available via the internet and provides full text archival coverage of numerous magazines, newspapers, wire transcripts, radio broadcasts and journals. The twenty-five newspapers were selected on the basis of their geographical distribution. Table 4 displays the names of the newspapers and the regions to which they belong. All 25 newspapers were covered in full text, including editorials and letters to the editor, by *LexisNexis* for the time periods in question

Time Period and Scope

The first World Trade Center bombing (WTC1) occurred on February 26, 1993. All editorials and letters to the editor from February 26, 1993 to March 3, 1993 (one week) for which WTC1 was the primary topic were analyzed across the categories mentioned above. The second World Trade Center attack (9/11) occurred on September 11, 2001. Similarly, all editorials and letters to the editor from September 11, 2001 to September 17, 2001 (one week) were analyzed. The breakdown of letters and editorials by time frame follows:

WTC1 Letters (total count): 15   9/11 Letters (total count): 122
WTC2 Editorials (total count): 33   9/11 Editorials (total count): 64

Table 4. Newspaper Sources

Midwest newspapers:	Northeast newspapers:
Star Tribune (Minneapolis, MN)	Buffalo News
St. Louis Post-Dispatch	Pittsburgh Post-Gazette
The Plain Dealer	Post-Standard (Syracuse, NY)
Columbus Dispatch	Union Leader (NH)
Southeast newspapers:	Western newspapers:
Augusta Chronicle	Denver Post
Miami Herald	Houston Chronicle
Miami New Times	Idaho Falls Post Register
News & Record (Greensboro, NC)	Lewiston Morning Tribune
Palm Beach Post	Modesto Bee
Roanoke Times and World News	Phoenix New Times
St. Petersburg Times	San Francisco Chronicle
The Times-Picayune (New Orleans, LA)	Seattle Times

Categories of Analysis

Inferential or Interpretive Statements

Each letter and editorial was analyzed for evidence of thematic or stereotypic evaluation consistent with the effect produced by the presence of negative emotions. Individuals experiencing hate or anger should rely more heavily on the use of such schematic generalizations in order to describe either the perpetrators of the attacks or the victims (i.e. the United States). For example, the statements "only Palestinian terrorists kill like this" or "these people only know violence" would be evidence of out-group inferences brought on by a negative emotional state. Similarly, a statement like, "the cowards can blow up our buildings and kill our babies, but the American spirit lives on" would be evidence of a thematic inference about the in-group (America) resulting from a negative emotional state.

As noted above, the approach taken here follows the design logic suggested in Hermann's (1977, 1980, 1984; Callahan et al. 1982) analysis of leadership styles in attempting to determine the general orientation of elites towards their own group or towards an out-group. Coding procedures for Hermann's approach rely on the unit of analysis as the word or phrase referring to the event/in-group/out-group. The key to this coding procedure is to ascertain when the modifiers used towards an in-group or out-group are favorable or unfavorable in orientation. Each letter and editorial was coded separately for the presence of either an in-group inference (1-0) or an out-group inference (1-0). An obviously important question concerns the coding procedure by which this determination was made.

Coding Procedure:

A total of 24 base adjectives were used to indicate the presence of an in-group or out-group inference. 12 of these adjectives were explicitly indicative of an in-group inference, and 12 were presumed to be indicative of an out-group inference. Of critical importance was the clear indication that favorable modifiers were in reference to the submitter's in-group by use of such direct object phrases as "we are," "Americans are," or "our nation is." Favorable modifiers included terms such as "peace-loving," "capable," "strong," "united," "brave," and "great," to name but a few. Unfavorable modifiers towards an out-group were prefaced by direct object phrases referencing some out-group entity such as "they are," "the people that did this," "those people," and "our enemies are." Unfavorable modifiers include terms such as "evil," "lawless," "cowardly," "warlike," "hostile," and "aggressive."

Table 5. In-Group and Out-Group Inferences

In-group Inference	Out-group Inference
Peaceful	Aggressive/hostile
Trusting	Deceitful
Truthful	Fanatical
Honest	Lawless
Good	Evil/bad
Friendly	Murderous
United	Corrupt
Brave	Cowardly
Ally	Enemy
Strong/capable	Weak
Determined/resolute	Prejudiced/bigoted
Superior/best	Arrogant

Table 5 contains the complete listing of terms used to identify an orientation toward an in- or out-group from respondents.

Each item containing a reference to either the first or second World Trade Center attack was read to determine the presence of 1) a word from lists above and 2) the connection of the modifier to a term indicating reference to either the commentator's in-group or to another, external group. The presence of both the modifier (e.g. "bad") and the object term/phrase ("they") was required to indicate the presence of an inference. Thus, a general statement about "friendly nations," or "bigoted people" would not have been noted as an inference given the lack of a direct object term such as "we are," or "they have been."

In such cases where a term was discovered which, while not a part of the list, might have lent itself to inclusion therein given its similarity in meaning, the term was checked against Roget's Thesaurus online.[12] If the questionable term was shown as have

synonymous properties to the main term (e.g. "foul" is listed in the thesaurus as synonymous with "evil"), then the term was considered as belonging to the category of "unfavorable out-group reference."

Cognitive Complexity

A brief discussion of cognitive/integrative complexity as it relates to the model of emotion is warranted here. Cognitive or integrative complexity theory (Suedfeld and Tetlock 1977; Suedfeld et al. 1992; Suedfeld and Bluck 1988; Baker-Brown et al. 1992) focuses on differentiation of information processing and decision making at the individual level. Differentiation refers to the extent to which individuals perceive different dimensions within a stimulus and to whether different perspectives are taken into consideration which evaluating a stimulus domain (Suedfeld et al. 1992). Integration refers to the ability of the individual to make conceptual connections between differentiated dimensions of a cognitive stimulus (Baker-Brown et al. 1992). Cognitive complexity is then defined as "the degree of differentiation and integration in the cognitive processing of relevant arguments, positions and viewpoints" (Suedfeld and Bluck 1988:628). Because the model of emotion and foreign policy information processing put forth here suggests a restriction on cognitions in the presence of an emotional stimulus, it holds that individuals experiencing negative emotions should exhibit a decrease in integrative complexity. Conversely, individuals experiencing negative affect should *not* exhibit a similar decrease in integrative complexity.

<u>Coding Procedure</u>:

The procedure used to score the material is based on that recommended in the *Coding Manual for Conceptual/Integrative Complexity* by Baker-Brown et al. (1992). This procedure involves selecting a single paragraph consisting of at least two sentences. Uncodable texts include paragraphs consisting of simple clichés, satire and sarcasm, quotations and definitions. The coding of archival materials using the integrative complexity approach has typically been scored on a 1 to 7 scale (Suedfeld et al. 1992; Suedfeld and Bluck 1988; Baker-Brown et al. 1992). Scores of 1 indicate no evidence of differentiation or integration, whereas scores of 7 indicate a high degree of differentiation and integration (Suedfeld and Bluck 1988; Baker-Brown et al. 1992).

Coding of each paragraph was relatively straightforward using indicators and examples provided in Baker-Brown et al. (1992).

Score of 1: Writer rejects alternative perspectives on an issue—only one way of looking at the world is legitimate

Score of 2: Writer recognizes possibility of alternative views but alternative perspectives are not developed (evidence of differentiation)

Score of 3: Clear specification of at least two different ways of dealing with the same information. Differentiation of two separable perspectives is a key criterion.

Score of 4: Requirements of 3 plus recognition of a relationship or dynamic between the two perspectives that could interact (evidence of integration)

Score of 5: Clear expression that multiple alternatives are not only held simultaneously but are also viewed interactively. Integration of two separable perspectives is a key criterion.

Score of 6. Specific expression about the mechanism behind the interaction in 5. The dynamics behind the interaction of multiple points of view.

Score of 7. Alternative perspectives are presented within the context of a larger viewpoint and multiple-level interaction is distinguished.

Baker-Brown et al. suggest a number of "content flags" which clue analysts in to the general score region for each piece. For example, the presence of a single viewpoint in conjunction with the use of terms such as always, never, forever, absolutely, constantly, or unquestionably indicates a strong possibility of a score of 1. The presence of at least two viewpoints and use of terms such as alternatively, either-or, and "on the other hand" indicate a possible 3.

A paragraph from each letter or editorial was randomly selected and evaluated using the criteria suggested in *Coding Manual for Conceptual/Integrative Complexity*. Each paragraph was first checked for the presence of content flags as suggested by Baker-Brown et al. (ibid) and then checked for the expression of primary perspective or statement. Scores were assigned based on the guidelines noted above. It should be noted that a large proportion of letters from either the first or second World Trade Center incidents consisted of very short paragraphs of no more than three or four sentences in length. Obviously, given the coding criteria and the explicit need to identify a primary perspective on an issue or the expression of an alternative or dimension, short or shortened paragraphs will result in lower scores than might be found in editorials. As will be noted below, it is highly possible that the editing process as applied to letters to the editor resulted in a uniform or biased sample and thus influenced the analysis of cognitive complexity.

RESULTS

The basic premise underlying the analysis implies that negative emotions (hate and anger) lowers the processing threshold more than an affective state, and that this effect will be discernable in public forums such as letters to the editor and editorials in newspapers. In order to verify that the two attacks produced the independent variable states required in order to test for the "real world" effects of negative emotion/negative affect on interpretation of foreign policy events, a simple manipulation check was performed. This check focused on the use of negative emotional language present in the letters and editorials of the newspapers during the time frames in question.

Manipulation Check

Negative emotion should be evident in the use of strong emotionally charged language suggesting "hate," "anger," "fear," "rage," and "disgust." We would expect to find a great degree of such language in the 9/11 case, but not in the WTC1 case. Each letter and editorial was analyzed for use of emotional language. It is important to note that this measure differs significantly from the inferential/interpretive measure of the dependent variable in that the check for negative emotional language reflects the writer's personal reflection of his/her emotional state. Self-evaluative terms as "angry," "horrified," "disgusted," "sickened," and "mad" were noted. When appropriate, phrases which point to such emotions were also taken into consideration. For example the statement, "For God's sake, the Pentagon!" would be indicative of shock or horror. "I'm seeing red and I want to throw up" would be indicative of anger or disgust. Each letter

and editorial was coded as 1 for the presence of emotional language or 0 for the absence of emotional language.

A 2 x 2 ANOVA of the data coded from regional newspapers yielded the following results. First, strong evidence supports the claim that there were differences between the first World Trade Center bombing and 9/11 in terms of the emotion expressed at the public level. More emotional content was discernable in letters and editorials following September 11th (M=.317) than following the first World Trade Center bombing (M=.064) [F(1,229)=7.55 p<.05]. As would be expected, the use of emotionally-laded language was far more evident within the context of public letters to newspaper editors (M=.409) than was found within editorials themselves (M= .063) [F(1,229)=7.88 p<.05]. Finally, the interaction between these two conditions clearly suggests that there were substantial differences in public responses to these two events, as shown in Figure 12. Following 9/11, almost half of the letters published in the selected newspapers expressed negative emotions (M=.451) [F(1,229)=7.55 p<.05]. Contrasted with the frequency of negative emotional content in editorials following 9/11, and in both editorials and letters to the editor following the first World Trade Center bombing in 1993, all of which were close to 6 percent, the difference is dramatic.

Figure 12. Frequency of the Use of Negative Emotional Language
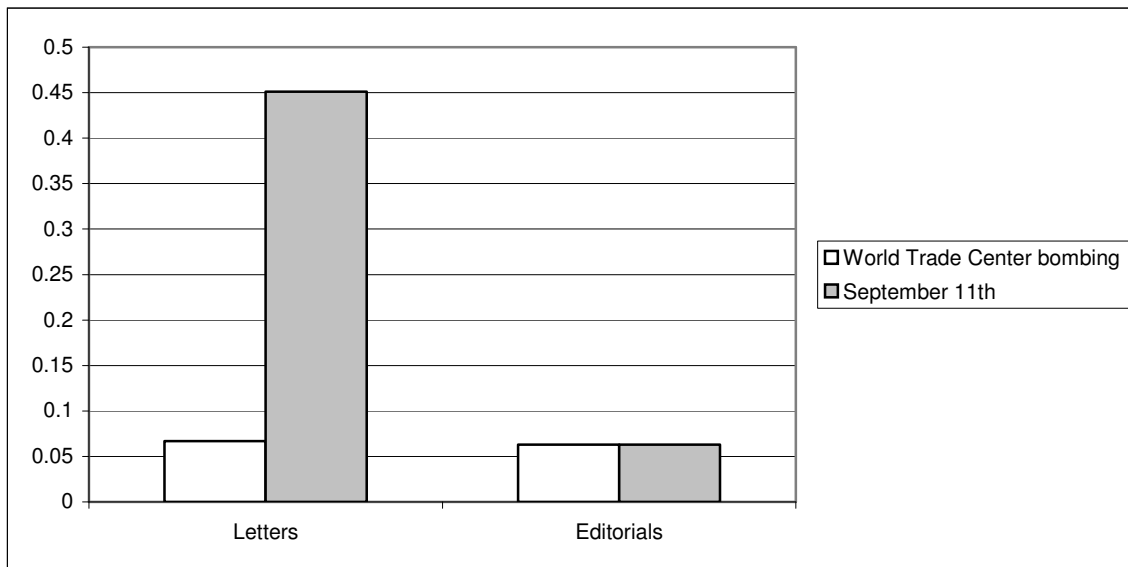
Many of the post-9/11 letters expressed both shock an anger at the attack on the World Trade Center. Some stated their feelings clearly: "I suspect I'll be [thinking about the World Trade Center attack] for a long time, because I am very angry" (Keith E. Gatling, September 16, 2001 *The Post-Standard*, Syracuse, NY). Several letters expressed not only anger and shock, but associated physical responses to learning of the events of September 11th. One citizen wrote, "Physically I was ill. I was shaking uncontrollably. My head hurt. I was sick to my stomach" (Vickie Cook, September 12, 2001 *News and Record*, Greensboro, NC).

Remarkably, the type of language used within editorials following 9/11 was often similar in tone and content to editorials *and* letters following the first World Trade Center bombing. Following the first World Trade Center attack in spring of 1993, many individuals expressed concerned sentiments of a practical nature, primarily revolving

around the question of national domestic security. One letter writer noted that, "after the recent incident at the World Trade Center, we should be thinking of ways to protect the people" (Julia Kridelbaugh, March 9, 1993, *St. Louis Post-Dispatch*). This concern was echoed as well in several editorials, for example that of the *St. Petersburg Times* on March 2, 1993, where it was suggested that, "The terrorist attack on the twin towers . . . should spur a national reassessment of our ability to protect our people, our government operations and our major business enterprises from sophisticated political terrorists."

Editorial comments following September 11 could be generalized as pursing a similar, practical approach to understanding or making sense of the event. An editorial in the *Palm Beach Post* (September 12, 2001) listed questions that America needed to answer such as, "How did the American intelligence network fail to detect a plot that might have been years in the making?", "How did the hijackers commandeer four flights in one day?", and whether the US should center its national defense strategy hopes on a nuclear missile shield. In fact, the general approach taken by most editorials following September 11 was not to participate in the emotional context of the event, but instead to ask questions relating to the event itself, primarily variants of, "how could this have happened?", "what should be done now", and "what does the nation do now?"

These findings suggest that we have every reason to believe that the events of 9/11 produced the desired independent variable state of negative emotion whereas the 1993 WTC bombing did not have the same effect. It is of course not surprising that emotionally charged language would be present in public responses to 9/11. Certainly not only the attack itself but also the video images of planes flying into a symbolic

landmark only served to exponentially amplify emotional responses to the event. Numerous letters within the sample expressed the sentiment that they had witnessed an event which would change their lives forever.

Analysis of the Dependent Variables

Inferential or Interpretive Statements

The proportion of editorials and letters consisting of in-group/out-group inferences was analyzed. Thus, the proportion of inferences in relation to their number in a specific set was analyzed. Thus, the proportion of inferences pertaining to a particular group served as the repeated measure in a 2 x 2 x 2 ANOVA. The analysis of in-group and out-group inferences found within the letters and editorials following the two World Trade Center attacks showed only a weakly significant difference between the frequency of in-group inferences found in editorials (M=.031) and those found in letters (M=.066) [$F(1,229)=3.48$ p<.10]. No significant difference was present between the first and second World Trade Center attack for in-group and out-group inferences. These data notwithstanding, it should be noted that there were very few explicit examples on the reliance of negative schemas or stereotypes in descriptions of the perpetrators of September 11.

One letter writer wondered how it was possible that "they call us infidels, these enemies who can yell, "Praise Allah," as they raise their blood-drenched hands to strike at innocent people" (Nelda Bromberg, September 15, 2001, *Arkansas Democrat-Gazette*). However, the most noticeable form of thematic interpretation concerned self-

images or in-group inferences. The sentiment expressed by Eric Cromer in a letter to the *St. Louis-Post Dispatch* (September 17, 2001), "It is our reliance on truth that will carry us to victory over the evil that has struck," and of another editorial in *The Seattle Times* (September 12, 2001) which stated "America, the world will learn again, is a good friend and a bad enemy" point to the inclination of people to seek common identity and reassure each other in times of crisis that they are strong, a dynamic underlying diversionary theories of war (Gelpi 1997; Levy 1989; Morgan and Bickers 1992) and the "rally-round the flag" effect (Baum 2002; Baker and Oneal 2001). Overall, while a surface review of letters and editorials suggested a tendency for individuals to make inferences about the strength, unity and resolve of the in-group (i.e. America) following the September 11 attacks, the effect was not pronounced enough to produce significant findings.

As mentioned in the introduction to this section, there is a possibility that interpretation of the events in question were also mediated by distance. Thus, it would be expected that the closer individuals lived to New York, the more salient and threatening the events of 1993 and 2001 would have been perceived. The result would be an interaction between geographic distance to New York and the affect-producing event (the first World Trade Center attack) and the emotion-producing event (9/11). In order to ascertain the potential for such an interaction, the newspapers from which editorials and letters were obtained were divided into those considered geographically "close" to New York, and those which were considered "far." Newspapers considered to fall into the former category included any city within a day's drive of New York, assigned to the

distance of 500 miles from the city. Thus, the newspapers considered to be fall into the "close" category included the following:

Buffalo News (297 mi.)
Pittsburgh Post-Gazette (318 mi.)
Post-Standard-Syracuse, NY (199 mi.)
Union Leader-Manchester, NH (205 mi.)
The Plain Dealer-Cleveland, OH (408 mi.)
Columbus Dispatch-Columbus, OH (480 mi.)
News & Record-Greensboro, NC (450 mi.)
Roanoke Times and World News-Roanoke, VA (399 mi.)

Inclusion of the independent variable "Distance" into the analysis produced a single significant main effect between the repeated measure of in/out-group inferences and distance [$F(1,225=4.63$ $p<.05$]. Editorials and letters in newspapers close to New York tended to have more out-group inferences (M=.20) than those far from New York (M=.12). On the other hand, editorials and letters in newspapers far from New York tended to have make in-group inferences more frequently (M=.053) than those close to New York (M=.025). A possible interpretation of this finding is that it underscores the idea that the perception of threat, augmented by the salience of the threat, in this case as represented by geographic distance from the events in question. Individuals located in cities closer to the events of 1993 and 2001 felt more threatened by *both* events and thus were more likely to make inferences about out-groups felt to be responsible for the attacks. On their own, however, these findings as they relate to geography are inconclusive.

Cognitive Complexity

An analysis of the degree of conceptual differentiation and integration present in letters and editorials following both attacks produced a strong effect for the source category i.e. letter or editorial, but no effects for the timing of the attack, or the interaction between letters and editorials written after the first World Trade Center attack or after 9/11. As expected, mean complexity scores for editorials were higher (M=1.56) than those for letters from the public (M=1.04) [F(1,229)=20.71 p<.001]. No effect of geographic distance was present in the analysis.

However the samples did not suggest that the ability of individuals to integrate and differentiate between concepts, and make conceptual linkages, was influenced by the emotional context of the situation. Anecdotal evidence from within the sample suggests that individuals expressing negative emotions following the September 11th attacks were no less likely to make links between such conceptual areas as terrorism and US foreign policy, or Islam and fundamentalism, than individuals following the first World Trade Center attack. One explanation for this effect would be to suggest that it reinforces the findings of Marcus' and colleagues (1988, 2000) that the presence of negative emotions actually increases vigilance and thereby might result in more, not less, differentiation and integration of relevant concepts. An alternative explanation might suggest that some systematic bias is represented within the sample of letters selected to be published, in that editors would tend to ignore letters of a more base and simple nature, opting instead to publish those deemed to be more thoughtful and insightful. Despite these initial findings, the model suggests a definite relationship between the presence of negative

emotions and the integrative complexity of individuals, a relationship which should be further examined in the future.

DISCUSSION

The purpose of this section was to compare two cases in order to provide "real-life" evidence of that which has already been shown in the experimental laboratory; namely, that negative emotions influence how political observers interpret and make sense of information about important foreign policy events. By looking at public responses to the events of September 11th and comparing those responses to a similar attack on American soil, it was hoped that further light could be shed on how negative emotional reactions to these events results in thematic restrictions on the ability of individuals to and make sense of and respond to events of import. Furthermore, an intention of this section was to show that these negative emotional responses were different than affective responses associated with the first attack on the World Trade Center.

An analysis of letters to the editor and editorial comments in the ten-day period following the first World Trade Center attack on February 26, 1993 and the ten-day period following the September 11th attacks on the World Trade Center suggests that there were differences in the responses of individuals to these two events. The type of language used to express personal sentiments or reactions to 9/11 differed dramatically from that used to respond to the first World Trade Center attack. Not only were the differences in responses visible in the quantity of material available, but public letters to

newspapers were replete with expressions of shock, disgust, anger, horror, outrage, and disbelief. In comparison to the rather mild response to the first attack on the World Trade Center, the contrast is profound. Unfortunately, further hypotheses about the effect of these two events were not supported by analysis of the editorials and letters found in newspapers. While a reading of these materials provides examples of inferential statements about Arabs, terrorists, Americans, and pleas for retaliation, unity, and cohesion, a more detailed empirical analysis of these two incidents does not suggest a statistically significant difference in the use of such inferences between the cases. Likewise, a cursory review of letters responding to 9/11 and letters in response to the first World Trade Center attack would seem to suggest that the emotional response to the collapse of the Twin Towers constricted the ability of individuals to express more complex relationships between cognitive constructs, or integrate pre-existing cognitions with new information. Many of the paragraphs sampled for this analysis of cognitive complexity were quite blunt and simple, demanding action, asking why, wondering how, or expressing simple hope. However, as in the previous case, there was not found to be a empirically significant difference in cognitive complexity scorings for letters and editorials between these periods.

As mentioned previously, it remains plausible that the written materials used to uncover evidence of the effect of negative emotions on the interpretation of the separate World Trade Center attacks were either not an adequate or appropriate source. It is not a difficult argument to make that editors pay special attention to all material published in their papers and are particularly sensitive, regardless of the context, to comments

perceived to be overtly inflammatory or provocative. Editors may have screened letters by refusing to publish certain ones which they deemed inappropriate due to emotional content, or they may have "cleaned" letters by rewording them in order to "tone down" the emotional content which our content analysis was purposed to uncover. Thus, it is quite possible that a hypothesis to be tested which arises from this case has to do with the extent to which the expression of negative emotions, at any level, is viewed as an abrogation of societal norms. This would suggest that expressing "inappropriate" anger or hatred in a public forum might be viewed as entirely too seditious an act, and would thus further enforce the belief that politicians only commit political suicide by conveying such emotions.

Despite these initial case study findings which did not fully meet expectations, the strength of differential responses to the two Twin Towers attacks does not in any way preclude the suggestion that the emotional processes which were clearly evident in previous experiences were somehow nonexistent in these incidents. On the contrary, the potent language used by individuals relating their emotional responses to 9/11 suggests that the underlying cognitive consequences of emotional response to foreign policy events may just simply be far more difficult to observe in the public context. We have every reason to believe that negative emotions profoundly shape the manner in which individuals make sense of and respond to the world, particularly in light of the growing awareness that state borders are no longer the barriers to hostility, anger and hatred that they might have once been perceived to be.

CONCLUSION

Herein has been documented an attempt to evaluate a theory which outlines several propositions about the relationship between emotions and foreign policy decision making. This theory has attempted to address what is seen as a glaring omission in current and previous studies on how individuals evaluate information about international affairs, namely, that negative emotions such as anger and hatred can and do influence the manner in which people perceive, make sense of, and respond to information about foreign events.

It is argued here that our responses to international relations are not just a function of the information at our disposal; emotions affect how information is integrated, our capacity to retain information, and what we retain or include in the process. In this latter case, we need to look at what emotions are doing along side of the cognitive process. The assumption here is that there are consequences on processes and outcomes when emotions are involved, and that these consequences are different in such instances where emotions are *not* involved (i.e. when processes and choice are merely modeled as the result of cognitions).

As has been noted, the extant literature on decision making within the context of foreign policy has tended to focus on either rational calculations derived from the objective characteristics of the components of international relations, or it has focused on the subjective perception of those same characteristics utilizing "cold" cognitions. Despite our intuitive understanding, and the findings of researchers in other disciplines,

few have attempted to incorporate emotions into an empirical framework relating to foreign policy.

Based on previous studies of emotion found in psychology and those few studies within the field of political science which have directly or indirectly addressed this issue, the theory posited herein has addressed negative emotions as an independent variable and attempted to ascertain, specifically, how such emotions influence 1) the interpretation of foreign policy information and 2) the processes by which individuals exposed to such information arrive at a decision.

Two important caveats were set forth, from the outset, which bear repeating here. First, this study has addressed emotions as they influence public, not elite, perceptions of international relations. This restriction was put in place as a practical matter given the strength of two potential arguments against addressing emotions at the elite level. In the first case, it could be argued that politicians are hampered in their ability to display emotions by important cultural and political restrictions. Examples have been cited of elites who have displayed emotions publicly and suffered political consequences for such actions. It may be that voters are uncomfortable with the public display of emotions by their leaders, that the public holds elites to a higher standard of performance than they hold for themselves, and that for the most part, the public expects its leaders to deal with all problems and events in a cool, rational manner. Displays of emotion may raise questions in the minds of voters and constituents as to the competency for leadership held by such elites. It is also possible that leaders use emotions to advance their own political agendas by arousing anxiety, anger, or fear among their constituencies. This

argument suggests that rather than being swayed by emotional currents, elites are more capable of using such feelings to their own political ends.

Based upon these initial contentions, it was deemed from the outset to be a matter of expediency to focus on how emotions influence public perceptions of international relations in general. This approach does not suggest that elites are impervious to the very same effects of negative emotions which have been found herein, merely that the results reported here are considered to be generalizeable to the public, not elite sphere. As will be discussed towards the end of this section, future research will attempt to address the role of emotions on foreign policy leaders.

Second, this study has focused on the role of negative emotions as independent variables. The sources of emotion are varied and multi-faceted. Interesting questions remain unanswered as to the relationship between enemy or ally images and emotion, situational factors and the rise of specific feelings, and whether emotions arise in response to events, the perception of actors, or some combination of both. Several assumptions have been required as to the nature of emotion in order to stimulate negative emotional responses from experimental participants. Fundamentally, those assumptions were based upon basic postulates of social identity theory suggesting that harmful or injurious actions of an out-group toward a member of one's in-group result in negative feelings towards such antagonists. The manipulation of emotion using such a scenario presented in video and written form was checked prior to incorporation within the experiments. As was expected, the basic sources of negative emotion were successfully tapped and found to be present when subjects evaluated the experimental

materials. Beyond these assumptions about the nature of negative emotion, however, this study has been preoccupied not with the causes of emotion, but its effects.

In the course of reviewing the voluminous literature about emotions and decision making, it became clear that there were, in essence, two separate approaches to the phenomenon. In the first, it appeared that emotions were often modeled as a form of evaluation or judgment. Such studies often tended to structure emotion as part of a larger attitudinal construct in concert with cognitions and behavioral inclinations. That affect is conceived of as an evaluative construct is evidence by the proposition within many of these theories that affect is a bi-dimensionally valenced phenomenon of like/dislike, love/hate, and happy/sad. Much of the early studies on emotion within the fields of social and cognitive psychology, as well as a few studies in political science, have modeled emotion in such a fashion. On the other hand, a review of the literature also uncovers the fact that there is a separate approach to understanding the nature of emotion. Called herein "emotion as emotion," this approach suggests that 1) negative and positive emotions have differential effects on perception and choice and 2) it should not necessarily be assumed that emotions exist within some larger cognitive framework; i.e. emotions may operate independent of cognitions, as a separate system of "perception." While the exact structure of emotion within this second approach may be difficult at times to delineate, it can be safely stated that emotions are conceived as a fundamentally different phenomenon from that of evaluation; that emotions serve to detect threats and conditions of safety. Drawing from the neurophysiological and neuropsychological literature on emotion, this approach has been most widely set forth

in the field of political science by Marcus and colleagues in their research on candidate evaluation (Marcus 1998, 2000; Marcus and Mackuen 1993; Marcus et al. 1998).

The tension between these two conceptualizations of emotion has led to a difficulty not only in agreeing on a definition of emotion, but also in addressing the influence of emotion on politics. Having discerned this potential discrepancy, it became evident that some accounting for the two would be necessary. Both approaches seemed to hold valuable information for our understanding of the relationship between emotions and foreign policy as sentiments towards some enemy or about some critical international event are not only characterized by evaluative components but also by more visceral feelings of threat or insecurity. The model that was developed thus made a distinction between affect as an evaluative factor lodged within a larger attitudinal setting and emotion as separate feeling states.

The definition of emotion that was the basis of the model relied fundamentally on the conceptualization of emotion and cognition as distinct yet related systems. This definition suggested that emotions are responses to external stimuli which are perceived to impact an individual's well-being.   These responses are characterized by phenomenological, physiological, and behavioral properties and in turn are associated either directly or indirectly with structures within the cognitive system. The aggregate properties (phenomenological, physiological, behavioral impulses) of emotions become labeled experiences (anger, joy, hate, fear) connected directly to event-specific objects (e.g. other individuals, groups, states, organizations, or institutions).

The model that was developed suggested that, in the presence of negative emotions, cognitions about foreign policy and international relations were bounded in terms of their content and capacity. It was theorized that emotions have a "thematic" effect on the types of items used to interpret events and that this thematic effect results in specific processing biases, such as fewer items of information accessed, less time spent reviewing information, greater attention to affectively consistent items of information, and higher recall of such items. Furthermore, it was posited that the influence of negative emotion on capacity and content would have a direct bearing on 1) interpretation of foreign policy information and 2) processes and choice about foreign policy events. This theory of emotion and foreign policy event interpretation was couched within previous research on the Cognitive Calculus model (Geva et al. 2000; Geva and Skorick 1999).

A fundamental difference was suggested to exist between the influence of negative affect and negative emotion. It was posited that negative affect acted as an evaluative process, providing individuals with a general, valenced orientation towards some stimulus. The more complex phenomenon of negative emotion was viewed as exerting markedly differing effects upon individuals than negative affect. A dramatic step is hypothesized between negative affective evaluation and the occurrence of negative emotion which accounts for markedly different effects between the two in how individuals make sense of and respond to foreign policy.

DISCUSSION OF THE FINDINGS

Two experiments were conducted to address the aforementioned hypotheses: that negative emotion has specific impact on the manner in which individuals make sense of and respond to foreign policy information, and that these responses differ from affectively evaluative cognitions. Two experiments were designed to address the differential effects of this negative emotional state and negative affective condition on 1) interpretation and 2) choice.

Experiment 1: Event Interpretation

In terms of event interpretation, or "making sense" of international relations the results were supportive of the model with some exceptions. Negative emotions were shown to have impacted participants sense of how similar or dissimilar the Manovans where, and the extent to which Manovans were likely to resort to negotiation to solve their problems. The influence of emotion along these parameters was shown to be stronger than similar evaluations by subjects in the negative affect treatment. The results also suggested supportive findings in regard to the effect of information on interpretation. The experiment showed that subjects having to make sense of this more an inconsistent set of mixed information recalled a higher proportion of negative information. The mixed information set was thus viewed as being cognitively more demanding to deal with than more consistent sets of negative and positive information. Only subjects in the emotion condition displayed this thematic bias in their recall.

It should also be noted that our results supported the idea of a dampening or standardizing effect of emotion. When comparing inferences derived from the three sets of information with different valences, it was found that the emotional state led to a smaller "gap" between inferences based on positive as opposed to negative information. For example, subjects in the emotional condition, when asked to state how similar or trustworthy they believed the Manovans to be, were on average closer together in how they scored this characteristic than subjects in either the affective or control conditions. Comparing participants in the negative emotion treatment who had reviewed either a set of positive information or a set of negative information, it was found that the difference between these evaluations was smaller than the difference of evaluations of similar sets of information in the negative affect treatment. Our interpretation of this important finding as derived from the LoTES model was that emotion has a "standardizing" effect on the way people make sense of events. This finding reinforces the idea of an interplay between emotional and cognitive systems, and that negative emotions served to override the thematic content of certain types of information.

The first experiment also produced a set of findings which did not support the theory. Namely, it was found that the emotion condition was associated with greater processing time of negative information as compared to negative affect. The LoTES model suggests an opposite effect. This finding is more troubling in light of a completely different effect on processing time found in the second experiment, on in which positive information led to more time spent processing information. While an explanation for the latter finding is offered below in the discussion of the second experiment, the finding in

the first experiment is consistent with the work of Marcus and colleagues who suggest that negative affect leads to greater attention. An underlying trend may be an interaction between congruency of emotion and information. It was suggested that the emotional system "slows down" at times when dealing with consistent information, possibly in order to strengthen the link between feelings of threat and associative cognitions. But under what conditions would that be the case? Does the cognitive system respond or act differently when trying to make sense of an event than when in trying to make a choice? It is expected that future research will be able to more closely address this possibility.

Experiment 2: Choice

Overall our findings in the second experiment were supportive of the hypotheses relating a difference in information processing as a function of emotive state. In terms of processing information relating to foreign policy, the findings reported here suggest a wide array of effects of negative emotion. Choice was shown to be strongly influenced by emotion. Subjects in the emotion condition were more likely to choose force than negotiation. On the other hand, the valence of the information set about Manova had no effect on decisions for force or negotiation. It was also found that the amount of attention paid to information as measured by recall supported the hypotheses. The recall findings also generally confirmed the results of the previous experiment in which only participants in a negative emotional state expressed the confirming thematic bias by recalling a higher proportion of negative than positive items. As was the case in the

previous experiment, a similar thematic bias for the control and the affect induced participants was not found.

Certain findings were also found within the second experiment to be inconsistent with the hypotheses derived from the theory. Despite the fact that a main effect of emotion on the number of items accessed was expected, the results reported here showed otherwise. Contrary to the first experiment in which mixed information resulted in more time spent trying to "make sense" of the inconsistent set, the second experiment showed that the interaction between the emotion condition and the mixed set of information resulted in *fewer* items of information accessed than in either the affective or control conditions. One possible explanation offered was the choice task itself. In the second experiment subjects were required to not only make sense of information, but also to use that information for a specific choice. It is possible that this requirement may have resulted in an additional emphasis on positive, or explicitly inconsistent, information. In this case it may have been that information of a mixed nature was processed in a similar fashion as information of a negative—or consistent—nature.

The choice task may provide an explanation for another inconsistent finding regarding the amount of time subjects spent reviewing positive information. It is possible that in both cases such information was dealt with swiftly in order to facilitate choice. It is also possible that the choice requirement may have made positive information more salient and thus resulted in the increased time spent viewing such information. This remains a rather puzzling finding, particularly in light of the fact that a similar finding was not reproduced in the earlier experiment. Both of these inconsistent findings were

found to be difficult to interpret given the hypotheses offered, namely, that the emotion condition should result in a similar amount of time spent viewing both positive and negative information. Taken as a whole, however, such findings are not interpreted as invalidating the entirety of the model, but instead offer further avenues for research.

Case Study

In general the model's basic postulate, that emotions interact with cognitions, mediating the types of information brought to bear on a matter, and the manner in which such information is used, were confirmed by the empirical findings of this research program. The case study was an attempt to highlight how these factors might have played out in a real-world case at the public level. Comparisons were drawn between the highly emotive events of September 11, 2001, and the assumedly affective events surrounding the first World Trade Center bombing. The fundamental difference shown to have existed between these two incidents pertained to the use of language to describe reactions to them. As one would have expected, the use of emotional language to describe September 11th was far more common than that used by the public to describe the first World Trade Center attack. However, analysis of letters to the editor and editorials in regional newspapers failed to uncover differences between these two incidents in terms of the types of inferences made about the perpetrators of these events, or in terms of cognitive complexity scores between the two calamities.

The findings reported within this program of research suggest moderate to strong empirical support for the assertion that emotions impact public perceptions of and

responses to foreign affairs. In some instances, particularly when analyzing specific processes surrounding the use of information en route to a choice, the impact of negative emotions appears quite strong. In other instances, for example when attempting to discern the role of negative emotions on inferences and attempts to make sense of foreign policy, the results should be characterized as mixed. However, the findings at this stage strongly support the contention that emotions do play an important role in our understanding of international relations and that their effects and overall influence bear further investigation. This study is viewed as but an initial step in the direction of uncovering more of the mystery surrounding the interplay of cognition and emotion as they relate to our understanding of and reactions to foreign affairs. The overall contribution of this research program to our understanding of international relations and foreign policy can be thus summarized:

Evidence supports the general claim that negative emotions influence the manner in which individuals make sense of foreign policy and process information about important foreign policy events. Furthermore, the evidence reported herein supports the assertion that cognitions about important and critical international events such as crises and calamities should incorporate the effects of negative emotions into discussions of information processing en route to foreign policy choices.

The findings reported here support the proposition that emotion has a restrictive influence on cognitive capacity and content. Negative emotions have a thematic effect on the types of foreign policy information attended to by individuals and their amount of said information.

The research discussed here suggests that previous attempts to equate affect and emotion bear further theoretical consideration. If such studies assume that affect is a simple evaluative, valenced structure attached to cognitions, then they may be over-simplifying a more complex and detailed construct. The findings here suggest that there is a vast chasm separating general attitudes such as like and dislike from feelings of anger or hatred. The implications of this distinction can be found in the aforementioned processing of foreign policy information.

In general, this study strongly suggests that the role of emotions in foreign policy bear further consideration. This assertion has been made elsewhere (Crawford 2000) as well. The reluctance of researchers and political scientists to address this issue is understandable. The theoretical barriers to incorporating emotions seem considerable given a history of confusion and contention surrounding this phenomenon. The suggestion here is not that this study has somehow resolved this conflict once and for all. This research program has merely attempted to point out one approach which might prove useful to scholars of international relations in broadening our understanding of the factors and processes which lead to foreign policy outcomes.

LINES OF FUTURE RESEARCH

Further research in this vein will attempt to refine these findings and deal with several related problems. The first, and most glaring, problem concerns the link between these findings and foreign policy decision making at the elite level. What do these findings suggest for our understanding of how or whether emotions affect foreign policy

leaders? Do leaders merely manipulate emotions for their own political gain, or do they find themselves swept up by emotional tides as we might expect within the general public? On the other hand, are the cognitions of foreign policy leaders impervious to negative emotions because of more complex and differentiated cognitive systems? It would be useful to attempt to initially tackle this issue by finding some representative case wherein which some foreign policy leaders appear to have "suffered" from the effects of negative emotions, whereas others did not. One such case for future consideration would be the responses of various US officials to the Rwandan genocide of 1994. An initial review of interviews and writings by elite decision makers associated with this crisis suggests that some officials were highly influenced by emotions, whereas others were not. What accounts for the differences in such officials? Was it proximity to the issue? Were members of the African desk at the State Department more vulnerable to the effects of negative emotions than members of the NSC, or members of the UN Security Council? Could the different responses be chalked up to idiosyncratic differences in personality? Attempting to uncover initial hypotheses within a case such as this would provide directions for future research on this larger question.

A second question derived from this study deals with emotion as a dependent variable. Given the many studies of the cognitive elements associated with important international relations, schema, images, situations, actors, actions, etc., one is left wondering what circumstances or conditions are most salient for our understanding of how negative emotions arise within the context of foreign policy decision making. In our attempt to understand foreign affairs on a daily basis, are observers more likely to have

negative feelings about some types of situations more than others? Are certain actor characteristics more likely to give rise to hatred, anger, loathing and anxiety? Is there some combination or sequence of actor and action qualities which generates strong emotions?

An additional question which has bears investigation concerns the relationship between cognitive complexity and the effects of negative emotion. In the case study in Section 7 it was assumed that negative emotions would damped cognitive complexity because this hypothesis fit within the overall framework of the theory discussed earlier. Cognitive complexity thus becomes yet another measure which one might use to uncover the influence of emotions. The hypotheses about how emotions might impact measures of cognitive complexity have already been stated. Further research might attempt to look at this question more closely in an experimental setting using a similar approach to that described here. Participants could be asked to view a film clip about some noteworthy news event and then write a brief paragraph describing that event. Using measures of cognitive complexity we would hypothesize that subjects within the emotional treatment would exhibit lower scores than other subjects. Such research would serve to bolster and enhance the findings discussed here.

Finally, a study of emotion should take advantage of recent developments in the field of event data analysis. Current programs in use such as KEDS and Tabari (Schrodt 1993, 1994, 1995, 2000) allow researchers to automatically code large amounts of information gleaned from international news sources. While much, if not most, of these sources suffer from the same editorial non-emotiveness which was found in the analysis

of the first and second World Trade Center attacks, are there semantic markers which indicate the presence of emotions surrounding some issue? A study of events from the past several decades might suggest a sequence or pattern of language used to indicate the presence of negative emotions. Furthermore, given the presence of such feelings, what types of actions, descriptions, and policies are most common? What states or regions of the world are most often beset by emotionally laden conflicts? Are "enduring rivalries" (c.f. Maoz and Mor 2005) best explained by their emotional content rather than specific conflictual issues? Event data analysis seems a useful and beneficial tool for further explication of this research program.

A Yiddish proverb states that, "the heart is half a prophet." We can no more separate emotions from our lives than we can divorce ourselves from breathing; emotions are an integral part of the individual and social human experience. For centuries poets and prophets have grasped the essential idea that emotions have a profound, and often times appalling, influence on the actions we take and the choices we make. However, pithy sayings and proverbs are not generally the sources of good scientific investigation. What has been set forth here is a study which has moved that which is believed to be intuitively—that emotions influence how we make sense of and respond to international relations—from the category of hunch to that of empirical knowledge. It is believed that further research will continue to peel back layer upon layer of this intriguing and highly relevant phenomena in our study of foreign policy decision making.

ENDNOTES

[1] Marcus and his colleagues conceive of two emotionality systems: a threat-attendant system and an enthusiasm generating system. The threat attendant system monitors the environment and creates feelings ranging from safety to anxiety. The mood state system monitors current behavior and successes to generate feelings ranging from depression to enthusiasm (Marcus and MacKuen 1993).

[2] See Geva et al. (2000) for a more detailed explanation.

[3] While acknowledging the limitation of such a simplification, we stand in unison with several other research efforts that utilized the same simplification (Bueno de Mesquita and Lalman 1990, 1992; James and Oneal 1991; Morrow 1997; Ostrom and Job 1986).

[4] The model can deal with two modes of exposure to information. The first mode addresses situation where the decision-maker has minimal control on the sequencing of information to which she/he is exposed. This is the mode that is represented later in the experimental test. In the second mode the decision-maker has control over the flow of information, i.e., the decision maker defines specifically and actively searches for certain items in a certain order. Geva and colleagues posit that in reality information acquisition contains a mixture of the two modes.

[5] In this sense the definition of relevance comes close to the notion of diagnosticity of information as addressed by Bassok and Trope (1983-4). Schwartz and Norman (1989:356) state that relevance "refers to the implicational relationship between a cue and judgment" (see also Anderson 1981).

[6] Decision-makers must believe that the information is reliable or credible if they are to incorporate the information into a decision calculus (cf. Jervis 1976). Similar emphasis on the reliability of the information or beliefs is included both in Taber's (1992) POLI, an expert system in IR, and in Young's (1998) "Worldview". However, in their formulations they refer to it as confidence.

[7] Moreover, as illustrated by Taber (1992:889) "decision makers must generate meaningful representations of new information before that information can be used in reasoning, that is, they must interpret incoming information."

[8] All the posteriori contrasts (using Scheffe) are significant.

[9] The news clip consist of actual news footage taken from the US involvement in Somalia, and the subsequent dragging of a US soldier's body through the streets of Mogadishu by Somalis in October of 1993.

[10] The recall coding of an item addresses accuracy as a retrieval of the main gist of the information item.

[11] The news clip consist of actual news footage taken from the US involvement in Somalia, and the subsequent dragging of a US soldier's body through the streets of Mogadishu by Somalians in October of 1993.

[12] http://www.thesaurus.com

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