Dynamic Models of Emotional Response: The Multiple Roles of Affect in Politics

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Abstract

Political scientists have shown increased attention to the role of emotional response in political behavior. This increased attention to emotions is important because discovering how people feel as well as how they think provides a more comprehensive account of how humans make sense of the world. Indeed, it is hard to imagine a successful theory of politics that does not include an account of the multiple roles of emotions and the various relationships between feeling, thinking and acting.

The literature on the relationship between feelings and thoughts (or affect and cognition) is mired in centuries-old conceptions of emotions as antagonistic to rationality, as hard to study objectively, and, therefore, best to be safely ignored. The most serious shortcoming is the well-established treatment of condensing all emotional response into a simple dimension of valence, thereby restricting emotional response to a single dimensional of likes and dislikes.

Recent work in psychology shows considerable promise for describing the dynamic functions subserved by the emotional systems. Understanding more fully the dynamic character of emotional responses will help direct research into emotional response in the fields of public opinion and political behavior and political psychology.

This article sets as its task the description of a theory of emotional response drawn from the work of Jeffrey A. Gray. Further, we shall outline how emotional responses work with cognition to account for political learning and political behavior.

I. Introduction: Information Processing - A Full Information Approach

The most recent conception to describe how people make sense of the world, how they rely upon their understanding, how they communicate those understandings and how they act on those understandings has been schema theory and the information processing paradigm (Conover & Feldman, 1984; Fiske & Pavelchak, 1985; Hastie, 1986; Lau, 1986; Lodge & Hamill, 1986; Miller, Wattenburg, & Malanchuk, 1986). Unhappily, the benefits in the way of research findings have not proved very much more than what was available from research within the antecedent paradigms of ideologies, belief systems, cognitive maps, or attitude structures (Greenwald, 1980; Markus, 1986). Moreover, the determinedly cognitive focus has excluded consideration of motivation[1] - a crucial and central issue in democratic political systems that rely largely on volitional and self-mobilizing actions by citizens.[2] Some researchers in the field of cognitive psychology made the decision to focus on cognition largely for reasons of methodological expediency. Others followed the lead of the Yale School and concerned themselves with opinion and valence (i.e., cognitive dynamics). Political scientists were – in the main – quick to follow suit. Perhaps one reason for this accommodation was the normative premise, central to the Western tradition, that democratic and economic development would be followed by enhanced reason and rationality in the citizenry (Krouse & McPherson, 1985; Thompson, 1976).

In any case, recent research has been more concerned with classifying citizens according to the degree of complexity of their "cognitive structures"(Conover & Feldman, 1984; Luskin, 1987; Luskin, 1990) than with gaining a fuller understanding of how people comprehend and react to their world. Moreover, what has been learned from studies within the information processing approach is so puzzling and troubling for those who support the development and full realization of democratic politics that to remain within this limited research tradition would be most discouraging to the democratic enterprise. This conclusion

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[1]Proponents of schema theory acknowledge that motivation is excluded from consideration, let alone explanation, (Hastie, 1986). This is an important failing. It is commonsensical to presume that what we think influences our behavior. However, schema theory in particular, and cognitive accounts more generally, contain no theoretical apparatus for linking thoughts to action.

[2]Political scientists have largely drawn on cognitive psychology for their source of theoretical guidance. To simplify their research agenda, cognitive psychologists explicitly excluded emotions (Gardner, 1985). While that narrowed focus might have simplified the research tasks undertaken by cognitive psychologists, the exclusion of affect makes their theoretical approach far less valid for guidance in the study of politics.

had been anticipated (Lippmann, 1922; Schumpeter, 1943). It appears, from these studies in cognition and information processing, that humans "process information" with an extraordinary series of biases that seem so well established and universally enacted that it seems hard to understand how the human species has flourished (Hamill, Wilson, & Nisbett, 1980; Kahneman & Tversky, 1982; Kahneman & Tversky, 1984; Nisbett & Ross, 1982).

The established views portray the public as generally governed by bounded rationality and of – at best – limited reality testing competence (Converse, 1964; Converse, 1970; Sears, 1990; Sears, Lau, Tyler, & Allen, 1980; Smith, 1989). This portrait is preplexing because that the human species falls within that class of species that relies most strategically on alert and attentive gathering of contemporaneous information. Two features of species evolution put critical value on the collection, interpretation and expression of information: mobility and sociability. The ability to move from place to place requires the ability to evaluate sensory information for signals of novelty (places that are not familiar as distinct from those areas that are well known and understood) and for signals of threat (the presence of noxious and intrusive creatures or events). This capacity to move from place to place, thereby increases exposure to novel surroundings and increases opportunities to meet and engage different species and different members of the same species. The adaptive advantage obtained by negotiating a wider environment is offset by the increased exposure to novel settings in which pre-established and previously learned behavioral routines may no longer prove successful and by the increased exposure to threat.

Commitment to social organization requires the ability to communicate among members as to status location in the social hierarchy and as to intention (Masters, 1989).[3] As social organizations become more elaborate, the requirement for swift and accurate scanning of status and intention, especially of strangers, becomes even more critical.[4] It has long been recognized that sustaining social hierarchy relies heavily on affective processes (Darwin, 1873(1872)).

The human species, as with most other species, must evolve robust and successful strategies for preserving and extending the species (Campbell, 1960). Therefore, in addition to the ability to assess threat, to communicate, humans must have mechanisms for

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[3]This point should not be taken to mean the social communication will evolve to communicate only accurate and valid information. Some have speculated that the development of consciousness evolved because of the adaptive benefit of misrepresentation and of maintaining ulterior motives (Byrne & Whiten, 1988).

[4]Anthropologists make a useful distinction between towns, where people in public places know one another, and cities, where people in public places are strangers to one another.

behavior assessment (i.e., response mechanisms that provide ongoing information about the success or failure of task performance). The success, or failure, of task execution is crucial whether the tasks fall within the categories of innate or habituated (i.e., previously learned behavioral routines) or within the realm of new or innovative tasks (i.e., learning new or novel routines). These three "information processing" tasks describe the overall central importance of information to our species. How, then, can we reconcile these well established aspects of the evolution of this species (Darwin, 1966(1859)) with the portrait provided by political scientists of the limited information processing capabilities of citizens (Ferejohn & Kuklinski, 1990)?[5]

We raise this question to suggest that expanding the definition of information to include affect may resolve this apparent conflict. We will also present research in cognitive psychology that will further strengthen the point we are approaching.

Let us consider an unpleasant but familiar example of information processing. If a person happens to reach out and touch a hot stove top, or other hot object, he or she will swiftly withdraw their hand. The response will take place before there is any conscious awareness or any sensation of pain. The response will be the same among males and females, children (even infants) and adults. The response occurs before awareness and before any sensation of pain because the reaction – withdrawing the hand – is controlled by the spinal cord and pain is not experienced until the nerve signal continues onward and reaches the brain (since the signal reaches the spine before the brain, the hand withdrawal occurs before the signal goes from the spinal cord then onto the brain for further "information processing." This example is to remind us that there are many "information processing" systems in the human body, that many of them are automatic (part of the autonomic system) and that our conscious state of awareness does not apprehend all that is occurring in and around us.[6] Indeed is precisely the availability of such nonconscious systems that make "sound bites" and 30 second political spots so potent (Kern, 1989).

Let us take a more striking example, one that is directly relevant to how we understand the brain. A surgeon, some years ago, discovered a patient that experienced a particular kind of cortical brain damage that severely affected part of the patient's visual field. When this patient was asked what he saw in the affected part of the visual field, he

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[5]The introductory chapter of the most recent symposium on information processing and democratic politics begins with the sentence, "Nothing strikes the student of public opinion and democracy more forcefully than the paucity of information most people possess about politics" (Ferejohn & Kuklinski, 1990) (page 3).

[6]In this example the limitation of consciousness is one of temporal delay and lack of direct motor control, which lies in the spinal cord. The examples that follow deal with other brain systems.

would reply he could see nothing. Yet, when asked to reach out and grab a described object, among many on a table, he would pick up the specified object, while simultaneously complaining of the impossibility of the request (Weiskrantz, 1986). What had been damaged was the part of the visual system that generated visual awareness; visual capacity was not impaired. This phenomenon has come to be called "blindsight." Still yet other experiments corroborate that people may pay conscious attention to one vivid source of information while other contradictory subliminal source of information is the more influential (Lewicki, 1986).[7]

Descartes' famous dictum, "I think therefore I am," exemplifies a central and seductive premise, which is unfortunately in this case, misleading. Conscious awareness is commonly understood as the exclusive and defining achievement of the human species. A corollary presumption is that conscious awareness can serve as the sufficient locus of all information interpretation and control of behavior.

The two examples described above, among many similar examples that could also be offered, are meant to alert political scientists that these presumptions, that conscious awareness is the top of a hierarchical brain system, that conscious awareness can monitor all senses, and that conscious awareness can control all human action, are no longer supportable in light of the evidence of brain research and is no longer accepted by those who have studied cognitive function in humans (Gazzaniga, 1985). Rather, the brain has a wide variety of sensory gathering, sensory interpretive, and control systems. These systems are organized in ways that are often parallel and only partially hierarchical. Conscious cognition is only one facet of a far more complex set of inter-related systems (Erdley & D'Agostino, 1988).[8] The effort to include affect, recognizing its proper place and function, will more fully and accurately describe how people make sense of the world of sensory experience and how they communicate their understandings. Indeed, the central role of emotions in performing precisely these functions has been well understood for well over a century, at least (Darwin, 1873(1872)), if not for over a millennium (Aristotle, 1954).

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[7]Indeed, as in the case of "blindsight," subjects in these experiments will reply that their judgments are consistent with their conscious impressions while their judgments will, in fact, be largely influenced by the nonconscious, and contradictory, sources of information.

[8]Further, recent work in cognitive psychology suggests that conscious awareness may have rather less to do with the control of behavior and more to do with enabling humans to be freed from domination of reflex-response systems so that deliberation can occur -- that is consciousness is valuable because it does not control behavior (Wilson, Dunn, Kraft, & Lisle, 1989; Wilson & Schooler, 1991).

In addition to systems that subserve reflexive action and thoughtful deliberation exists yet other neural systems for interpreting sensory information. Foremost among them are the systems of emotional response. Rather the regenerating sensory information into a veridical representation, emotional systems interpret sensory data as feeling states, as mood. And, of course, these systems (plural) interact with other interpretative systems.

Certainly the work on attitudes (Fishbein, 1967; Fishbein & Ajzen, 1975) and language (Osgood, Suci, & Tannenbaum, 1957) has recognized that affect is a robust and central concept in psychology. Those who have developed the "symbolic politics" model of political behavior and thoase who have given attention to the arousal capacity of potent symbols have also relied heavily on affect (Edelman, 1964; Edelman, 1988; Sears & Funk, 1990; Sears, Hensler, & Speer, 1979; Sears, et al., 1980). But, in so far as affect has been considered, its contemporary treatment in political psychology has, in the main, been limited to simple valence measures, most commonly the "feeling thermometer" (Marcus, 1988; Marcus, 1991). The reduction of affect to a single valence measure, presumed responsive to cognitive stimulus and control (Schachter & Singer, 1962), seriously distorts the multiple influences that affective systems have among each other and from and to cognitive processes.

We here present a theory of emotional response as part of three information processing systems, collectively known as the limbic system, that works in coordination with cognitive systems. The most central point we wish to make is that feelings serve humans by providing them with strategic and influential interpretations of their environments, personal, social and political. The corollary point we wish to make is that by understanding the role of feelings, and by studying how feelings are experienced and expressed, in addition to our long tradition of studying people's thoughts, we can gain a more comprehensive understanding of how people make sense of the world, how they communicate and when and under what circumstances they will take action.

But to study emotions we need a theory. We can not adequately "bootstrap" our way to an adequate understanding of the role that emotions play in politics (nor need we, as the number of theories of emotions is legion and the number of alternative theories is quite substantial – among them those offered by Wundt, Ekman, Tomkins, Plutchik, Panksepp, Cloninger and Izard). To study emotions properly, we require a theory that can identify the structure of emotional response, the dynamic processes within the emotional information processing systems, and the linkages to cognition. To that end we offer one conceptual account that combines when and how we rely on the apparent veridical representation of

sensory stimulus that is conscious awareness (Dennett, 1991); when and how we rely on feelings; and, when and how feelings and thoughts interact to influence each other and action.

Too many political scientists continue to think of emotions in simple valence terms, presuming that emotions merely serve to "mark" whether we like or dislike an object, event, individual or group (for a review of recent work on emotions in politics and the movement away from valence models of emotions, see (Marcus & Rahn, 1990)). Although there has been a persistent effort in psychology to subsume affect as a modest component within the determinedly cognitive framework (Breckler, 1984; Fiske, 1981; Fiske & Pavelchak, 1985), this effort has largely failed as increasingly psychologists have come to recognize affect as a group of dynamic systems that warrant carefully focused study.[9]

Nor should political scientists spend any more time trying to establish the simple proposition that emotions will be a useful topic that merits further study (Ragsdale, 1991). Nor should we be engaged by recent controversies in psychology whether affect is totally independent of cognition (Lazarus, 1982; Lazarus, 1984; Zajonc, 1980; Zajonc, 1982), as in the main, affective systems operate cooperatively with cognitive systems (Mayer & Gaschke, 1988; Mayer, Salovey, Gomberg-Kaufman, & Blainey, 1991; Tassinary, Orr, Wolford, Napps, & Lanzetta, 1984). What is now required is theoretical progress in specifying how the psychology of affect can be applied to the study of politics. That is the task we have undertaken in this paper.

II. Overview: Gray's Tripartite Model of Emotions

Gray's model of emotionality describes three systems, that collectively form the limbic system (Gray, 1981; Gray, 1985a; Gray, 1985b; Gray, 1987a; Gray, 1987b; Gray, 1990). The three systems are the fight/flight system, the behavioral approach system, and the behavioral inhibition system. One central function performed by the limbic system is to process and manage "reinforcers." In psychology, the term reinforcer is used to describe the impact of reward, on the one hand, and nonreward and punishment on the other, in strengthening or weakening linkages between actions undertaken and reactions to that experience. Thus, the limbic system is fully involved with learning and memory. As we

[9]Cognitive psychologists, attempting to preserve their exclusion of affect have argued that what we think determines what we feel (Schachter & Singer, 1962). The attempts to restrict affect to mere consequent annotation of valence within cognitive systems has not been very successful. See, for example, (Fiske & Pavelchak, 1985).

shall see, the organization of the limbic system is to divide the management of reinforcers among three distinct systems, each with a distinct strategic focus. As we shall also see, these systems involve considerable cognitive, but not conscious, processing. The term cognition, among political scientists, has generally become confused with consciousness, they are not the same thing, as cognition can occur without awareness (Lewicki, 1986).

The first system we shall describe, the fight/flight system, differs from the other two systems, in that it deals with controlling innate responses to unconditioned punishment and nonreward (i.e., it does not deal with mediated, conditioned, or secondary stimuli). We shall treat this system rather briefly as, in the main, it has limited application to politics (though when it is engaged its role is quite powerful). The two remaining systems, the behavioral approach system and the behavioral inhibition system, deal primarily with conditioned and/or secondary reinforcers – that is, stimuli that are not in themselves informative, but which the subject has learned to associate with either good or bad consequences. The most important point to make about these two systems is that they are fully engaged in supporting learning. They are information processing systems that yield mood changes as the product of their evaluations. And, although they do not support consciousness, they are distinct cognitive systems in their own right.

III. Gray's Three Systems of Emotional Response

A. The Fight/Flight System

This system modulates the emotions of rage and terror. It is a simple but powerful system. Direct sensory input of punishment or nonreward (but not secondary stimuli that signal punishment or nonreward) are the particular stimuli that trigger this system.[10] In addition to generating rage or terror, the fight/flight system initiates specific behaviors of either unconditioned escape or defensive aggression (terror is the affect associated with the first and rage is the affect associated with the second).[11] Because this system is engaged only in conditions of direct painful punishing experience, and because most politically relevant circumstances in most democracies will deal with mediated and symbolically

[10]Sensory systems have clearly defined and limited accuities. Human eyes can process light frequencies within a species specific bandwidth. Some species have higher acuity, some species have lower acuity. Some species can see color, some cannot. Similarly, different parts of the brain have specific responsibilities for interpreting specific sensory data - language, vision, sound, etc.

[11]For the most part, the determination of which behavioral response is dependent upon whether the environment will allow escape (if it does, unconditioned escape is the output, if not defensive aggression is the output).

meaningful stimuli, we can set aside any further discussion of the fight/flight system and proceed to a discussion of the behavioral approach and behavioral inhibition systems.

We will introduce these two systems with a brief review of the recent consensus on the structure of emotional response.

B. The Circumplex Model in Psychology

During the 1980's, psychologists discovered that the many different terms used to describe emotions had so much in common that they could be represented as a circumplex. Numerous studies, conducted by a number of different groups of psychologists, report the same findings. People were asked to rate how they felt in different circumstances and to rate the similarity and difference of the many terms used to describe the emotions they experienced. These ratings fill a two-dimensional space. When these responses were plotted, psychologists found that they consistently formed a dense circle within which could be plotted all the various emotional terms (Plutchik, 1980; Russell, 1980; Watson & Tellegen, 1985). Comparative studies consistently report essentially the same two-dimensional structure, i.e., the circumplex (Almagor & Ben-Porath, 1989; Mauro, Sato, & Tucker, 1992; Russell, 1983; Russell, Lewicka, & Niit, 1989a; Watson, Clark, & Tellegen, 1984). Finally, considerable work has been reported on the measurement of the affect using the circumplex model (Plutchik & Kellerman, 1989; Russell, Weiss, & Mendelsohn, 1989b; Watson, 1988a; Watson, 1988b; Watson, Clark, & Tellegen, 1988).

An example of a circumplex description of emotions is presented in Figure 1. The emotional terms depicted are chosen to define the rim areas of the circumplex. *Anger*, for example, would be close to the rim (near *astonished*) while *annoyed* would be located closer to the center along a vector from the center toward *astonished*. Similarly, other emotional terms can be located within the space enclosed by the circle. Variations in intensity can be represented by movement along the two axes. The more intense emotions are found in the upper right quadrant and the more placid emotions are located in the left lower quadrant.

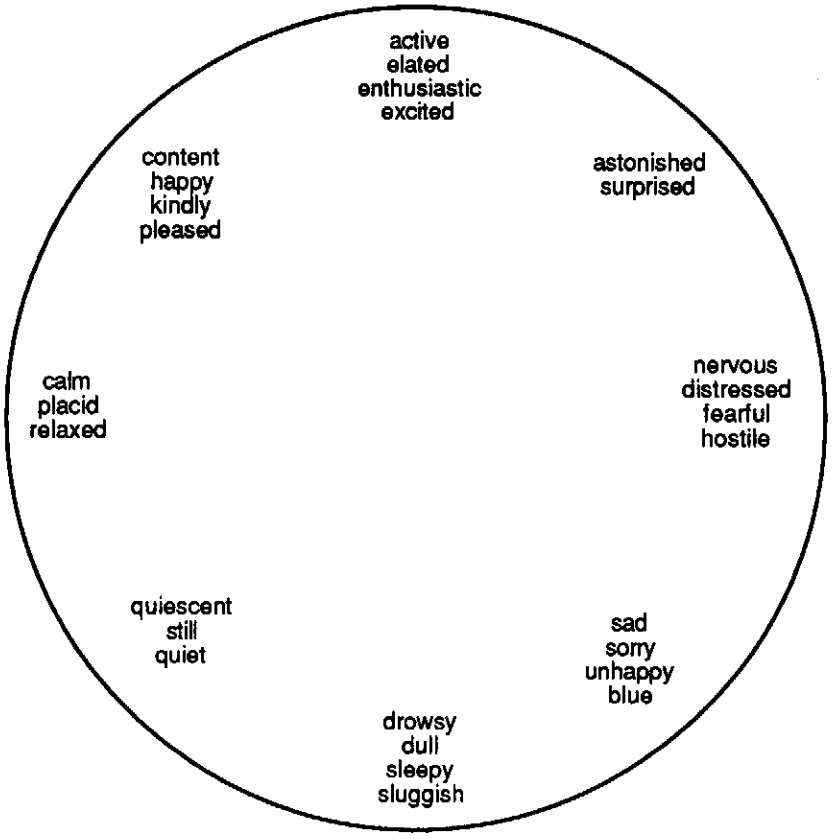

Figure 1: Typical representation of the Circumplex as adapted from (Watson & Tellegen, 1985)

The circumplex describes feelings as composed of two dimensions (see figure 2). Early work described these two dimensions as positive affect and negative affect. However, most of the attention paid to the circumplex approach has focused on issues of description and structure. What is now required is to understand the dynamic information processes that underlie this structure. Gray's account of the behavioral approach system (which modulates the moods that define the positive affect dimension) and the behavioral inhibition system (which modulates the moods that define the negative affect dimension).

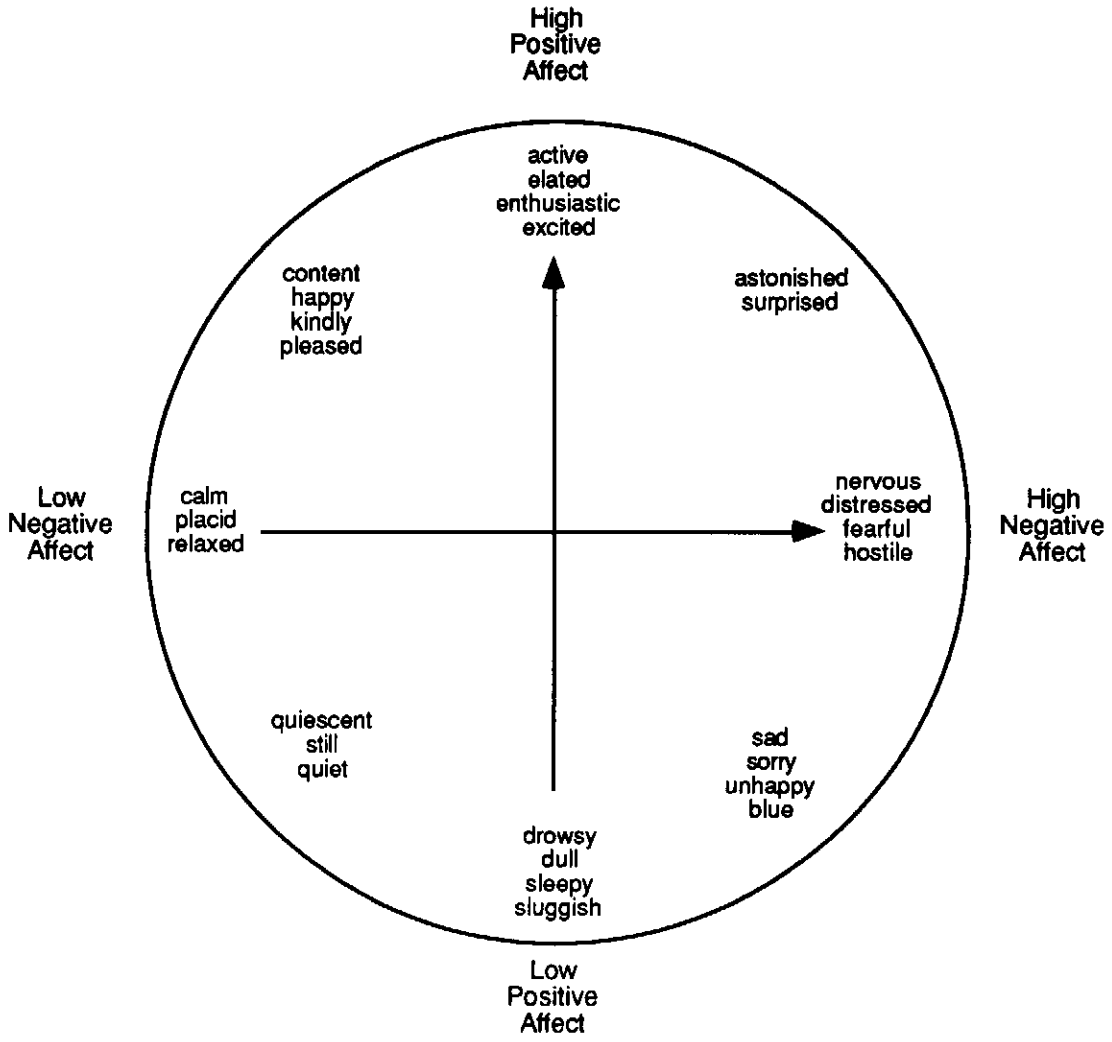

Figure 2: Circumplex with axes labeled as adapted from (Watson & Tellegen, 1985)

Let us consider what changes in mood mean. What should we understand if people report that something or someone makes them feel *relaxed* as opposed to *anxious* or *elated* as opposed to *depressed*?

The work of a British psychologist, Jeffrey Gray, has been very influential in improving our understanding the functions that emotions serve (Gray, 1981; Gray, 1985a; Gray, 1987a; Gray, 1987b; Gray, 1988). According to his theory and research, emotions provide ongoing assessments, much as the change in readings provided by a thermometer tells us the temperature, or a the movement of numbers in a digital clock tells us the time. And, changes in our feelings constitute changes in these assessments. The two dimensions,

positive affect and negative affect, provide us with strategic diagnoses of two crucial aspects of our experience. Further, each system of emotional response has specific motivational implications (Mayer & Gaschke, 1988; Mayer, et al., 1991), is intimately involved in personality (Meyer & Shack, 1989; Watson & Clark, 1991; Zuckerman, 1991) and is central to social communication and cooperation (Chance, 1976).

C. The Behavioral Approach System

The first dimension of the circumplex, that dimension that is most commonly called positive affect, we could call the Mastery or Trust dimension.[12] When our feelings are focused on ourselves, changes in mood, from gloomy to enthusiastic, tell us that we are bursting with confidence, energy and eagerness. Alternatively, when our mood changes in the direction of depression, we conclude that we are exhausted and beaten. When our feelings are focused on those we depend on or are identified with — for example, family, friends, or political leaders — these moods reflect what we have recently experienced or anticipate experiencing. Trust has been confirmed or we have been disappointed and let down. Applied to ourselves, these feelings gauge self-mastery; when applied to those we rely upon, these feelings gauge our confidence and trust in others.

According to Gray, this assessment provides crucial ongoing information of how well we are conducting ourselves and how well our previously learned behaviors are functioning. Thus, when a president's approval rating goes up, we be sure that the public's confidence in relying on the president's leadership has been strengthened. Recent studies that examine the influence of each dimension of emotional response show that it is this dimension, measuring the moods of trust and mastery, that is powerfully related to voting (Marcus, 1988; Marcus & MacKuen, 1993; Marcus, MacKuen, & Glassberg, 1989). Gray calls this dimension of emotional assessment the Behavioral Approach System, suggesting that we will engage those actions that we feel enthusiastic about and draw back from those that cause us despair.

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[12]The recent increased attention by psychologists to the role of emotions reintroduces the concept of motivation to the social sciences. Through the 19th Century the concept of will had been central to most accounts of human behavior, it is not surprising in that the central actors of the era were leaders in the political and economic sectors. Rising classes will attempt to enshrine the faculties they presume to be at the core of their success. They will concurrently disparage those faculties presumed to be essential to competing classes. With the rise of enlightenment thought, and later utilitarian thought, and the ambitious ascendance of the intellectual class, reason and rationality is put forward to replace will. This attempt to eliminate will and instead reliance on wit and logic plays to the limited capabilities of this new class. But, that is another story, for another time and place.

Enacting previously learned behavior is a central feature of this system. It is concerned with motivated, not reflexive, behavior. This distinguishes the behavioral approach and inhibition systems from the fight/flight systems. This system modulates enthusiasm, elation, hope and relief, as well as the affects that mark depression. It is also an incentive system providing emotional cues to signal strategic progress, by generating growing confidence, and to signal failure, by generating depression. It gauges the success or failure of recalled actions, contemporary experience, or anticipated activities that fall within the category of previously learned behaviors.

The ability to undertake strategic actions, actions designed to achieve a purpose, requires real time feedback on the intermediate success of the sequence of actions. The emotions of the Behavioral Approach System provide precisely this information. Absent this feedback and, as with our 'blindsight' patient, there is no ability to comprehend the success or failure of any subject initiated action. So, it is not surprising that variations in this dimension are powerful predictors of the willingness to engage in previously learned actions (Sacks & Bugental, 1987; Seligman, 1975). Positive moods have been found to predict helping behavior (Carlson, Charlin, & Miller, 1988), as well as the best single predictor of which candidate a citizen will support (Marcus, 1988; Rahn, Aldrich, Borgida, & Sullivan, 1990).

Those who have been engaged in the information processing paradigm frequently offer the observation that gathering information is costly (a convenient explanation for why people are not as fully informed as the expectations of some expert). A more useful insight to offer is that all physical effort is costly and leads to exhaustion. The willingness to undertake a course of action must be based on the continual gauging of the prospects of success, the anticipated effort, and the current stock of physical and psychic resources. It is the Behavioral Approach System that provides this assessment and provides the results in the shifts of mood that define the positive affect dimension. Shifts in the direction of increased elation strengthen the motivation to expend effort and strengthen confidence in a successful outcome. Shifts in the direction of increased depression weaken the motivation to expend effort and undermine confidence that the outcome will prove successful.

Psychologists have long known that the negative area of the circumplex, when applied to the respective behavioral correlates, must differentiate between response associated with threat and anxiety, on the one hand, and responses associated with inner collapse, failure of will, on the other hand (Ax, 1953; Batson, Fultz, & Schoenrade, 1987; Beck, Brown, Steer, Eidelson, & Riskind, 1987). Gray's identification of two systems of

learning, one dedicated to monitoring and assessing self-initiated previously learned behaviors and one dedicated to recognition of novelty and threat, underscores the importance of treating emotional responses as compounds of these two ongoing processes.

D. The Behavioral Inhibition System

Life is full of surprises and two kinds of surprises are crucial. As we confront our world we often come across new and unpredictable people and circumstances. And, at various times, there are people and circumstances that may be threatening.[13] Recall that the Behavioral Approach System provides people with an understanding, an emotional report card, on actions that are already in one's repertoire of habits and learned behaviors. The second dimension acts to scan the environment for novelty and intrusion of threat. It serves to warn us that we haven't learned how to handle that which confronts us and to warn us that some things and some people are powerful and dangerous. Gray calls the system that generates moods of calmness, relaxation and nervousness and anxiety the Behavioral Inhibition System. These moods constitute the second dimension of candidate evaluation.

Gray's contribution suggests that while people rely on their feelings to assess how well they and those they rely upon are doing, they also rely on their feelings — a different group of feelings — to scan their experience for signs of threat and uncertainty. What is interesting about this second dimension of emotion is that Gray's theory suggests that the onset of increased anxiety stops ongoing activity so that attention can be oriented to the threatening appearance so that learning can take place.[14] This is important; we will return to it later when we discuss the political ramifications and applications of Gray's theory.

The behavioral inhibition system is also a learning system. It is an active cognitive, but not conscious, system. It produces behavioral and affective responses, not conscious thoughts (though, as this system is linked to "higher" conscious systems, it will provoke thinking). This system cycles continually – it compares sensory information about the world with expectations obtained from the behavioral approach system. So long as the comparison shows no discrepancy between expectation and reality, the system generates a sense of calm and the behavioral inhibition system remains unobtrusive. However, when they system detects unexpected and/or threatening stimuli, then it generates moods of

[13]To a psychologist, the first defines settings of uncertainty — circumstances where the unfolding events cannot be anticipated — the second defines settings that are anticipated to be punishing or unrewarding.

[14]Therefore the name, Behavioral Inhibition System (BIS).

increasing anxiety, it interrupts ongoing activity, and it shifts attention away from the previous focus and towards the intrusive stimuli (MacLeod & Mathews, 1988; Pratto & John, 1991).

The Behavioral Inhibition System has a particular role relevant to politics. One consequence of the activation of this system is learning. When moods are calm, there is little incentive for learning as ongoing habituated actions are left undisturbed. When anxiety increases, habituated and previously learned behavior is interrupted. Anxiety signals that our focus of concern needs to be shifted and that we must be ready and capable of applying perhaps new approaches to the unexpected appearance of novelty or threat. In other words, increase in the level of anxiety, but not terror, is a motivation for learning.

E. The Mood Systems and Behavior

Just as the experience of color is generated by three specific types of cells in the eye that then produce an amalgam that we experience as an array of colors, so to the limbic system interprets sensory data with three different systems to produce mood. Just as we can not experience a "pure" color generated by just one type of cell, we cannot experience a single mood generated by only one of these three systems. Our emotional experience is a composite generated by these dynamic systems.

The description of the two mediated mood systems, each supporting learning, suggests that the modulations of each system have a lot to offer to an improved understanding of political behavior (Derryberry, 1991). It suggests that behavior may be driven by affect as well as by cognition – studies confirm this (Millar & Tesser, 1986). Further, studies also confirm that asking people to focus on their feelings will provide strengthen the relationship between attitudes and behaviors while asking people to focus on their thoughts will weaken the same relationship (Wilson, et al., 1989).[15]

A final point. Crucial to the strategic function of the mood systems is the distinction between what we already know how to do and the familiar environment in which we can safely enact our repertoire of already learned behaviors, on the one hand, and the unfamiliar world beyond, on the other hand. The mood system, in the Behavioral Inhibition System, includes a dedicated threat recognition system. The primary purpose of this system is to enable us to recognize quickly the appearance of the novel, the unfamiliar and the threatening. The identification of "we" and "they" is a central part of our feelings about the world. In the most general way, we are born to be partisan. Our emotional responses to

[15]See footnote 9 on this point.

events, groups, proposals, and individuals, will primarily depend upon whether they fall within our familiar circle or are apprehended as strange, unfamiliar and threatening. While reason may encourage us to endorse universal norms and principles, our feelings will continue to be influenced by whether actions or people appear to us as familiar or strange (Lanzetta & Englis, 1989).

IV. The Mood Systems and Politics

In the realm of politics, emotional reactions are influenced by the existing partisan orientations of followers (Masters & Sullivan, 1989; Sullivan & Masters, 1988b). Democrats are likely to react emotionally quite differently to a Republican leader's actions than are Republicans, and, of course, vice versa. Put more generally, the success of our opponents will most likely generate anxiety, while the success of those we identify with will generate increase confidence and elation. Evidence of failure by those we have entrusted will yield depression while similar evidence of failure by our opponents will likely yield calmness and satisfaction.

Recall that the positive, mastery dimension, operates on previously learned behaviors and previously established social bonds. We respond with enthusiasm when actions we have learned or actions we support are successful, just as we respond with depression when these actions lead to disappointment. It is here that understanding the mood system gives us insight into motivation.

Thus, a partisan group, say Republicans, that endorse a Republican program or policy will likely react to a Republican leader who is pursuing these programs with enthusiasm (moderated by the prospects for a successful outcome).[16] On the other hand, an opposing partisan group, say Democrats, is likely to react quite differently to a Republican proposal. Democrats are likely to react in fear or anxiety, if the program is seen to be successful, or calmly, if failure is anticipated. Putting the same point another way, the expectation that we are going to work together engages the enthusiasm-depression dimension. The expectation that we are going to be in a competitive situation engages the anxious-calm (or threat) dimension. That initial determination is strategic and controlling. The expectation of either a friendly or a combative encounter will, accordingly, define the emotional response (Lanzetta & Englis, 1989). Partisanship will be at the center of political behavior because it shapes how we understand proposals, issues, leaders, movements and

[16]Holding constant the stature of the individual(s) proposing the program, or expected to lead the effort to enact the program (Marcus, 1988).

events. Recent research has again demonstrates the pervasive and enduring impact of partisanship on American politics (Miller, 1991).

We will explore in greater detail how partisanship can condition the emotional responses that people experience to candidates below.[17] However, in order to properly understand the dynamics of emotional responses we need to underline the point that there are "dual systems" of emotional response and that each of these systems of response have different consequences for behavior and for cognition. Table 1 summarizes the system specific stimuli that provoke each of the dual systems, the system specific form of emotional arousal and the system specific behavioral and cognitive relationships.

[17]We should mention that other characteristics have also been shown to condition emotional responses. Among these are personality (Marcus, Sullivan, Theiss-Morse, & Johnstone, Forthcoming), gender (Marcus, et al., Forthcoming; Masters & Sullivan, 1993; Masters & Carlotti, 1988), and ethnicity (Warnecke, Masters, & Kempter, 1992). We do not have the space to develop the ways in which these other dispositional charactersitics condition emotional responses. The interested reader is referred to the citations for further reading.

	Behavioral Approach System	Behavioral Inhibition System
Stimuli that provoke system specific quiescence	1. Signals of Subject's Plans or Behavior resulting in failure. 2. Signals of failure of Group(s)'s that subject identifies with.	1. Signals of Normality. 2. Signals of Safety.
Stimuli that provoke system specific arousal	1. Signals of Subject's Plans or Behavior resulting in success. 2. Signals of success of Group(s)'s that subject identifies with.	1. Signals of Novely. 2. Signals of Threat.
Characteristic moods of arousal	Feelings of enthusiasm (success)	Feelings of anxiety (threat or novelty)
Characteristic moods of quiescence	Feelings of depression (failure)	Feelings of calm (absence of threat)
Behavioral consequences of system arousal	1. Increased motivation for the behavior at hand. 2. strengthened attitude-behavior linkage	1. Inhibition of ongoing behavior. 2. Weaken current attitude-behavior linkage.
Behavioral consequences of system quiescence	1. Decreased motivation to engage in the behavior at hand. 2. Passivity	1. Ability to focus on the ongoing behavior. 2. Ability to introspect
Cognitive consequences of system arousal	1. Disattention to contemporary information. 2. Disinclination to evaluate habitual responses	1. Attention shifts away from ongoing behavior and towards the intrusive event, or circumstance. 2. learning new routines of response
Cognitive consequences of system quiescence	1. Passivity 2. Blaming cognitions and introspection	Continued unobtrusive scanning for signs of novelty and threat.

Table 1: The "Dual Systems" of Emotional Arousal and Behavioral and Cognitive Consequences

As you can see, the kind of information that each system attends to is quite different. The BAS system is concerned with evaluating behavioral routines that sustains the individual as s/he performs among others within the familiar social milieu the various tasks necessary for daily pursuits. On the other hand, the BIS continually monitors the immediate milieu for intrusive signs of novelty and threat. Moreover, arousal of each system (enthusiasm in the case of the BAS and anxiety in the case of the BIS) and quiescence (depression and calmness respectively) also have quite different behavioral and cognitive consequences. Thus, specifying the political consequences of emotional arousal requires attention to the partisanship of follower and leader as that defines whether there is a shared identification or an oppositional relationship.

A. Emotional Response and Election Campaign Strategies

As we have already shown, with other data, partisan orientation of the individual defines the basis for emotional reactions (Marcus, et al., 1989). During the 1988 Presidential campaign Bush generated enthusiasm among Republicans and lack of enthusiasm among Democrats (and the reverse pattern applies to Dukakis). Further as the campaign unfolded, the direction of changes in these responses is defined by the partisan orientation of the respondent — improved fortunes for Bush inspired Republicans and depressed Democrats. Let us consider a theoretical space, figure 3, below. The same actions by a particular candidate will generate different emotional reactions in those who share a partisan bond with the candidate than with those who maintain a different partisan bond (Marcus, et al., 1989). A strong candidate will elicit enthusiasm among supporters and trepidation or anxiety among opponents.

In each cell is a single description. In the upper half of of the Figure is a description of the emotional relationship between a follower and leader of same partisan camp. In the lower half of the Figure is a description of the emotional relationship between a follower and leader of conflicting partisan camps. A candidate who is eager to do well demands the capacity to elicit enthusiastic emotional reactions, and when s/he can do so among his or her partisans, then the traditional base of support is secured. When s/he can extend the enthusiastic response to those who do not share a common partisanship, then a candidate of widespread and charismatic appeal is upon us. Notice that Figure 3 also calls attention to the extent of anxiety or reassurance s/he generates among followers. Here, the specifying

effects of emotional repsponse are more clearly felt. While displays of success, or mastery, can overcome partisan "blinders" and seduce support even from among opposing partisans, actions that generate anxiety are not so universal in their effects among followers. Events that cause anxiety among followers can deeply wound a candidate while conversely greatly encourage followers of the opposing candidate.

Figure 3: Partisan Emotional Reactions of Followers to Candidates of Common or Opposed Partisanship

Partisan politics in America makes use of two fundamental strategies. Candidates can win by securing the support of their supporters if they are in the majority (and if they can depress the turnout among their natural opponents). This is the mobilization strategy. The mobilization strategy has the basic goal of creating enthusiasm among partisan supporters and depression among partisan opponents.

A second strategy is often and most recently effectively used. That strategy is appropriate for minority candidates and minority parties: the negative campaign. While most American elections may be most frequently decided by mobilization strategies, there are more than a few conversion elections that have occurred over the past 200 years. Newly freed slaves became fervent Republicans until the New Deal elections in the 1930's when Afro-Americans made a complete switch in party affiliation and became a crucial part of the Democratic electorate. Conversions may occur because of the particular appeal of a candidate. Eisenhower and Reagan come to mind. Defections may be short-lived or enduring. What creates the inclination to defect? What creates an interest in the candidates of the opponent party?

Recall that the Gray model assigns to the threat dimension, the task of identifying people or situations that require new strategies of response. The experience of anxiety inhibits ongoing behavior and shifts attention toward the new and anxiety producing source. If a minority party candidate hopes to win, the candidate must generate anxiety among disinterested (independents) and opposing (other party) potential voters.[18] If the minority party candidate does not generate anxiety, then that candidate can hope to gain the support only among the preexisting partisan base — with the obvious electoral outcome. The minority party candidate must pursue a two part strategy. First, the minority candidate must sustain enthusiasm among the minority base of support. But a mobilization strategy is not likely to work. If everyone gets enthused, and the independents divide in the same proportion as the ratio of majority to minority then the minority candidate will inevitably lose. In addition to the mobilization strategy, the minority candidate must attempt a conversion strategy and this requires candidate messages that engage the Behavioral Inhibition System. The minority candidate must generate anxiety among those not currently

[18]Also note that when we speak of "majority" and "minority" candidates, we mean the candidate who will win and lose – other things being equal. In Congressional races, for example, the "majority" candidate is the incumbent. "Politics as usual" produces the incumbent's victory. Note that the "conventional wisdom" incumbent's Congressional campaign was a 1st dimensional strategy – generate mild enthusiasm but avoid generating anxiety. This conventional wisdom has changed. Incumbents (as well as challengers) now go right for the jugular. They pursue a 2nd dimensional strategy as well.

anticipated to vote for this candidacy, thereby gaining attention, and undermining the preexisting voter calculus among these voters. Threat creates uncertainty about what to do. Therefore, negative campaigning creates the opportunity for minority party candidates to gain support among neutrals and from the opponent's camp.

Each cell has a dominant mood. Consider the representative mood for each cell when follower and leader share a partisan bond. First consider that the upper right cell is a most damaging reaction. For that mood, evolves from actions that seem energetic but of uncertain or threatening consequence. The emotional reaction of followers is anger against one's leader, a potent mood that will undermine the leader unless it can be transformed used to mobilize support and define the boundaries between "them" and "us" (Masters & Sullivan, 1989; Sullivan & Masters, 1988a; Sullivan & Masters, 1988b). For the upper left cell that mood is discouragment, which is likely to be provoked by inaction or weak ineffectual action that is both unsuccessful and of uncertain result. The result may well be the abadonment of a leader or a movement. For the lower left cell, the mood is complacency and the implicit judgment is that the leader is feckless and harmless. This situation may be stable and enduring but only so long as the environment remains tranguil and abundant. Finally, for most leaders, the lower right cell is the best of possible outcome. Here actions have proved successful and result in feelings of mastery and self-confidence that are shared between the leader and the led.

What can be anticipated when leaders' actions are observed by followers of oppossing partisan orientations. The actions of leaders from the oppossing partisan camp are likely to generate emotional reactions of followers quite different from followers who share the leaders partisanship. As depicted in the lower half of Figure 3, as leaders who proved to be commanding and successful they can anticipate that they will seduce even those who have a historical predisposition to distrust and disregard such leadership. Failure, as with failure among those who have a common partisanship, generally leads to abandonment (the unenthusiastic column). Actions that prove unsettling to the opposition, however, may well prove the most interesting to analyze. The sudden initiative, an unexpected effort to placate or arouse support, may prove either enticing (if matched with anticipated or realized success towards a goal that can be shared) or threatening (if the goal is antagonistic).

Let us clarify the partisan strategies that follow from the above analysis. Political campaigns are perhaps the best arena to explore the dual roles that affect plays in politics for campaigns are events that display partisan camps in fervent competition; that are in

pursuit of goals and policies that may be either shared (e.g., national security, or other "single valence"
issues) or antagonistic (e.g., cutting welfare programs, or other issues that have contending and oppossing positions); and, where outcomes are most clearly attributed to the public actions of the contending leader candidates.

Going into a campaign, voters are predisposed to feel calm and at least mildly enthusiastic about their party's candidate, a candidate with whom they share a share a partisan bond. Going into a campaign, voters are predisposed to feel unenthusiastic toward opposition candidates. Voters in the majority party are unlikely to feel very anxious about opposition candidates, at least at the start. Voters in the minority party are likely to feel anxious about majority party candidates. During the election campaign parties devise strategies to challenge or strengthen these predispositions. The minority party must try to unsettle the majority and attract the uncommitted. The majority party will begin by trying to remain unaffected and secure in its position.

The majority party candidate will try to sustain enthusiasm among followers, attract at least some independents, and be sufficiently impressive to intimidate the opposition. The mobilization strategy can also be used against the opposition. In this case, the tactic is to suggest to the opposition that their candidate is a weak dispiriting leader. The minority party candidate must attempt to sustain enthusiasm among followers *and* generate anxiety about the majority party candidate among the majority camp and among the undecided. If successful, this effort to induce anxiety would encourage these individuals to set aside their normal "standing decision" voting habits. If successful, the majority party followers and independents will become uncertain about relying upon the majority party for leadership and will reconsider the relative merits of the two candidates. Negative campaigning creates a fluid situation from a fixed situation.

For the past two decades, at least, Republicans have been in the position of a minority party, though this may well be changing. During that period negative campaigning has been of special importance in Presidential elections to the Republican strategy. We have seen the reliance on divisive attacks making effective use of the "liberals," the "card carrying ACLU" sympathizer, soft on crime (the Willy Horton ad), flag waving to attack the patriotism of Democrats, among many others, to neutralize the preexisting preponderance of Democratic voters. If the current shift of partisan affiliation proves to be enduring, we may see the strategic logic of negative campaigning shift from a useful weapon in the Republican arsenal to one of greater benefit to the Democratic party. If this

surmise is correct, we can expect the Democrats to make good use of scandals, economic distress among middle class voters, among other issues, to negate the inclination of middle class voters to rely upon their new found attachment to the Republican party. In 1992 we may find the Democratic party's abhorrence of negative campaigning to be less compelling than it was in 1988.

Is there evidence that the onset of anxiety has the effect we posit? Indeed there is. We, and others, have elsewhere shown that voters vote for the candidate that generates the greatest enthusiasm (Marcus, 1988; Marcus & MacKuen, 1993; Rahn, et al., 1990). We have also shown that voters who find both candidates threatening, their own "natural" candidate as well as the opposition, make vote decisions of a different sort than do their untroubled brethren. The unthreatened voter votes on the basis of party affiliation (voting for the candidate of their party) and on the basis of comparative enthusiams (which candidate they respond to with greater enthusiasm). The threatened voter ignores the party affiliation of the candidate in deciding which candidate to endorse — i.e., the minority candidate no longer has the handicap of the "wrong" party affiliation (Marcus & MacKuen, 1993).

Interestingly, in practical terms, the sorts of campaign symbolism and rhetoric that is associated with conversion campaigning may dominate those associated with mobilization strategies. That is, the usual sorts of symbolism that generate enthusiasm may be less effective when the level of anxiety is raised. Also, the direction of the strategies may be asymmetric. For example, it may be easier to raise enthusiasm but more difficult to depress it. What is more important, it may be easier to increase anxiety than calm it. This is speculation, but it raises the kind of questions that follow from understanding the dynamics of emotional response.

B. Issue Salience and Emotional Response

There is another dimension of political behavior for which Gray's model may prove to be instructive. We have noted the extensive literature which indicates that large portions of the public have relatively low interest in and low levels of knowledge about public affairs. Most often this is characterized as a worrisome threat to democratic practice. How can the electorate exert its proper authority if large numbers of voters are unclear on where the candidates stand on the fundamental issues of the day?

Work in economics and cognitive psychology, however, suggests that limited attention to political life may reflect a rational and strategic response of individuals to the

natural limits of time and attention in their daily lives (Downs, 1957; Kahneman & Tversky, 1982). If people pay most attention to what affects them most directly and, in turn, what they can most directly affect, we should not be so surprised that issues of foreign diplomacy and ideological abstraction do not capture the attention of each and every potential voter (Lippmann, 1922; Sartori, 1987; Schumpeter, 1943). The critical issue of mass democracy, then, shifts from one of identifying some idealized threshold of issue and candidate knowledge required of the electorate to one of understanding the *dynamic* process of public opinion (Neuman, 1986; Neuman, 1990; Neuman, Just, & Crigler, 1992). Political attention and interest is fluid. New issues and candidates catch the attention of voters while older ones recede (Beck & Parker, 1985). Political attentiveness is not strictly a function of internalized civic duty. People pay attention because some issues effect their lives and because others are dramatic and interesting in their own right.

The search for issues suitable to these purposes is now a full blown industry in its own right. Discovering the emotional responses to a variety of contemporary issues – taxes, health costs, war, Japanese investments in the U. S., and so forth – is crucial to the ability of a candidate to run a successful campaign. While contemporary studies of issues and their change over time has successfully mapped the historical processes, the changes over time and the issues that have sustained impact (Carmines & Stimson, 1989; Stimson, 1991), little has been offered to explain how and why specific issues, presented in various guises, succeeds or fails to influence some but not all.

We feel that the circumplex model offers special promise for a better understanding of the dynamics of issue attention and opinion change. Returning to the two-dimensional model we find a fresh interpretation of how the BIS/threat dimension may apply to the dyanmics of political thinking. If we scan the political horizon and see no threat, we feel safe and secure and we attend to our private business. The adaptive benefit of feeling complacent is efficiency. If, on the other hand, we perceive something to be salient (that is threatening) we pay more attention, the behavioral approach system is activated and we put some effort into determining whether we are enthusiastic or unenthusiastic about these novel developments. In this conception, the Behavioral Inhibition System is prior to the Behavioral Approach System. Rather than "inhibition" we might emphasize the complementary fucntion of excitation.

At the macro level, such a conception lends insight into the phenomena of negative political advertising and campaign theatrics. Candidates will ascribe to their opponents issue positions that will cause anxiety among their opponents and undecided voters and

anger among their supporters (anger, on the circumplex, is a mixture of high enthusiasm to pursue the cause and high threat against the intrusive stimulus, the opponent).

V. Conclusion

We have tried to outline Gray's theory of emotional response and provide a way to connect what has recently been learned about emotionality to the realm of politics. It has been commonplace to conceive of prejudice as being largely sustained by emotionality. It has also been common place to treat affect and cognition as antagonistic. Both of these presumptions require reconsideration. We think the first overestimates the "trait" component of emotionality. We also have tried to emphasize the extent to which affect and cognition are cooperative processes.[19] In particular, we can understand why cognitive psychology has found that humans do not make judgments as "scientists" (Kahneman, Slovic, & Tversky, 1982; Nisbett & Ross, 1982). Gray's theory reminds us that the existence of evolutionary biases in favor of preserving the hard-won repertoire of innate and learned behavior is an adaptive response. Gray's theory also reminds us that we move with comfort within a familiar world that we know and we confront a larger world that we do not know but need to engage with some caution.

There is much research that is left to be pursued, We are optimistic that while the theoretical offerings extended here are not likely to be universally validated, we are confident that a fuller exploration of the role of emotions will greatly add to our understanding of politics.

[19]The general presumption that removing affective influences will enhance decision-making (Janis, 1982; Janis & Mann, 1977) might also warrant reexamination in view of recent studies (Wilson & Schooler, 1991).

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