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EMOTION AND EVALUATION IN NOMINATION POLITICS

DISSertation

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By

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* * * * *

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In Memory of Sara
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Elections are a fundamental feature of American politics. In the democratic tradition of the United States, it is through elections that the nation's governmental leaders are selected. Thus, the outcome of elections is of great importance. Given the level of importance associated with the outcome, the process by which individuals decide how to vote has been an obvious target of investigation. Revisions in the process of selecting party nominees has extended this concern with elections into the realm of intra-party primaries.

The current understanding of individual behavior in elections posits a number of forces influencing electoral behavior. Examples of these include partisanship, ideology, issues and issue proximities, candidate characteristics, voter characteristics and demographics, as well as the emotional response individuals may have to candidates. Individuals are expected to evaluate and select candidates in a way that generally clusters those with similar partisan and ideological tendencies (for example, Democrats will, in general, prefer the Democratic candidate). Cast in terms of proximities, individuals are likely to evaluate most highly the closest candidate in terms of partisanship or ideology. A voter's perception of characteristics of the candidates may
also be of importance, with voters preferring candidates that they perceive as having more positive personal characteristics. Certain characteristics (both demographic and attitudinal) of the voters themselves may play a role in the assessment and evaluation of candidates, thereby making the individual something other than merely a passive processor of external information. One form of this active processing that has been considered in some of the existing models is the individual's emotional response to the various candidates. Voters are described as having some collection of positive and negative emotional responses to each candidate, with these emotional responses being shown to be related to a number of forms of political behavior. Used in combination, this collection of explanatory terms offers a significant understanding of individual-level behavior, though this understanding is far from complete.

While emotional response has been shown to be a significant element in the development of evaluations and preference in the general election, the nature of emotional response on the part of individuals to presidential nomination candidates has not been explored in any great detail. There has, however, been a fair amount of research into candidate preference and perception during the nomination campaign, as well as a significant amount of work done on emotional response in other contexts (to general election candidates as well as in a broader context). The purpose of the research presented here is to bring together these two different foci in a model that adds the emotional responses to candidates for the nomination to the usual factors considered in accounting for candidate evaluations during the presidential primary season.
Affect and Emotional Response

Emotional responses to candidates should be especially important in nomination contests. The public has less information about the contending candidates, some of whom have moved rapidly from obscurity to headlines in a matter of days or weeks, especially because partisan cues are irrelevant to contests within the same party. Moreover, the events of the nomination campaign variously elevate or dash the prospects of a field of contenders. Yet, analysis of the emotional response of individuals to political figures, to the degree that it has been done at all, has focused primarily on those candidates running in the general election.

The work of Abelson et al. (1982) represents one of the first reports on emotional response to political candidates. The basic findings relevant to this analysis are their conclusions that emotional response is two-dimensional (representing positive and negative emotional response), and that these emotional response terms offer some unique ability to account for candidate choice and preference. Later work by Marcus and MacKuen (1993; see also Marcus 1988) confirms these general findings in a slightly different environment. Another model of candidate choice that explicitly includes some form of emotional response is that done by Rahn et al. (1990). In their model, a comparative measure of emotional response is used to predict vote in the

---

1 It should be noted that while individuals who vote in presidential primaries have higher than average levels of information and awareness; the public as a whole has strikingly low levels of information about nomination candidates. The question of information is considered in greater detail later in the analysis.
general election. Considered in sum, the literature focusing on emotional response supports the interpretation of emotional response as multi-dimensional (most likely construct that offers additional explanatory power in the consideration of candidate choice and evaluation, at least outside the context of the presidential nomination campaign.

While the exact mechanism that gives rise to each individual's emotional responses is not likely to be identifiable, the process by which emotional response influences evaluation can be discussed. Wherever emotional responses come from, once they exist, it becomes a question of whether they are used in a meaningful fashion. Ottati and colleagues (Ottati et al. 1989) suggest the following:

Thinking about social policy may elicit positive or negative emotional reactions. Respondents may use these reactions as "information" about their attitudes toward the policy and, therefore, may base their agreement with the policy on these reactions independently of the cognitions that gave rise to them (405).

In other words, the emotional response has the possibility of being used as an independent piece of information. Zajonc (1980) also talks of this possibility of the affective response being separated from the stimulus that generated it. In the context of candidate perception and evaluation, this means that voters may react emotionally to

---

2 Several aspects of the Rahn et al. work are worthy of mention. First, the measures used in this analysis differ slightly from the more common NES question by offering anchored emotional endpoints. Second, there was no attempt to deal with the structure of emotional response as indicated by the rest of the literature. Third, the measures used also included an overall like/dislike term (much like the thermometer). While none of these observations undermine their results, they do make comparisons more difficult.
candidates in a variety of ways, and that these reactions have the possibility of then becoming independent explanatory terms in the process.

It is useful at this point to clarify some of the concepts being used in this analysis. There is no doubt that many survey-based measures, such as those used in this analysis, contain some affective components. Indeed, almost by its very definition, overall evaluation will be the product of a process that is, at least in some part, driven by affective forces. However, it is important to note the difference between the general idea of affect and the much more specific idea of emotional response. The former is broad enough to include many evaluative elements, including the affective tags (or valence) associated with a wide range of stimuli. The latter represents only the internalized emotional response of an individual to a stimulus (in this case, a candidate).³ Turning to the literature for definitions offers little other than frustration.⁴ Fiske and Taylor (1984) define affect as a "generic term for a whole range of feelings and emotions," while they define evaluations as the "simple reactions to others" (310-311). Ottati and Wyer (1993) go a bit further. They offer a similar definition of affect, but then break out emotional response, emotion, and mood. Emotional response represents the most specific definition, in that it is the generation of a specific emotion.

³ See Ottati and Wyer (1993) for more on this distinction.

⁴ Indeed, it is interesting to note how many of the "famous" works on affect, emotional response, and evaluation actually never define the terms. To a large degree, the lack of a clear definition in the work presented here is a result of the lack of consensus in the field of social psychology. Numerous and conflicting definitions of affect exist. Complicating the matter, the understanding of affect has evolved over the last 3 decades, making some approaches less relevant to today's applications.
in response to a specific stimuli. Emotion is seen as the general collection of emotional response terms to a specific stimuli. Mood is the most general, being a general, unfocused emotional state, unattached to any particular stimuli. For the analysis presented here, emotional response is considered to be both the individual observed measures and the broader assessment of general emotional response to the candidate (this merges Ottati and Wyer's ideas of emotional response and emotions).

Placed in the context of the analysis at hand, emotional response and overall candidate evaluation are each, to differing degrees, measures of affect. The former is overwhelmingly affective, while the latter draws partly from affective elements (including emotional response) and partly from forces more traditionally thought of as cognitively-based. The degree to which emotional response and overall evaluation are related is an empirical question, and is explicitly addressed later in the analysis.

The language used throughout the text primarily uses the language of emotional response, although at times references may be made to "affect" or to "emotions." Within the pages of this analysis, emotional response, emotion, and affect should all be read as references to the same thing - emotional response. Does an individual feel angry, disgusted, hopeful, etc. in response to a given candidate? How do these specific measures of emotional response total for each individual, offering some sense of overall emotional response? The work presented here is not explicitly concerned with the

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5 As Zajonc notes, the affective measures "implicate the self" (1980:157). In this analysis, the emotional response terms are seen as involving a greater implication of the self than the overall evaluation terms.
larger concept of affect and all that it encompasses, although that is an interesting
question. Having just noted that evaluation is likely in this broader class of measures
that have some affective roots, I will not return to this distinction again. In the analysis,
evaluation and emotional response are treated as significantly separate concepts.

The exact nature of the emotions in emotional response may be significantly
varied. Russell (1980) describes each emotional response as being located in a two-
dimensional space, with the dimensions being arousal and pleasantness. Any single
emotion can be classified as having some degree of arousal and some degree of
pleasantness. Marcus (1988) alters this representation slightly, describing the
dimensions as positive and negative affect, where differing levels of arousal account for
movement along the dimension. The measures used in this analysis, interpreted in the
context of the Marcus approach, can all be described as "high" arousal terms (see
Marcus 1988 for a graphical representation of this). In a sense, then, when referring to
emotional response, I shall be referring to emotional response in a high arousal state.6

Individual-level Behavior in the Nomination Campaign

While the modern study of individual-level behavior during the presidential
general election has been underway for roughly the last half century, investigation of
that same behavior during the nomination period is much younger, with nearly all the

6 The analysis presented later (especially that on the structure of emotional response)
indicates that using only high arousal terms generates results that are compatible with
studies using a larger range of indicators.
work coming since the mid-1970's. The emergence of primaries as a topic at this particular point is largely a function of the changes made in party rules, which led to the emergence of primaries as an important aspect of selection. The early work on primaries was largely an application of the existing models of behavior that were developed by looking at the general election. The focus was usually on candidate choice, producing results that were somewhat less than overwhelming in comparison to those from the general election analyses. The collection of independent variables used in the study of general elections was applied to the primary voters. Partisanship was difficult to consider since, almost by definition, nominations consisted of campaigns between candidates of the same party. In light of this, partisan intensity was considered and offered some small purchase. Ideological differences among the candidates made some difference in evaluation and choice in the nomination phase, but did not offer great explanatory power. Issue positions were generally found to of little use in the models, too. The collection of perceived candidate traits did increase the explanatory power of models significantly. It is no surprise to note that voters generally prefer the candidate to whom they attribute the most positive traits. 

A second portion of our understanding of the nomination campaign developed around the study of the dynamic aspect of the candidate selection process. Some work was more focused on the candidate level of activity (Aldrich 1980), while other work

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7 Obviously, errors and bias in this attribution process exist. Individuals have been shown to consistently show bias in the attribution of characteristics to individuals by largely assigning "good" traits to the most highly evaluated individuals.
explicitly considered the individual voter (Bartels 1988). In the context of the work to be presented here, this latter approach proved especially useful, demonstrating that voters did act with some level of awareness of how their preferred candidate was doing in the race. While these assessments of viability can be clearly shown to be related to candidate choice (Abramson et al. 1992), it is not as clear on how strong a relationship may exist between viability and candidate evaluation.

The analysis presented in this dissertation is distinguished from many studies of voting in yet another way - it focuses on candidate evaluation rather than candidate preference. In studies of general election behavior, there appears to be little distinction between evaluation and choice. In a two-candidate race such as so often found in the United States, individuals will overwhelmingly vote for the candidate that they evaluate most highly.

In contrast, the nomination campaign often features more than two candidates. This allows for the possibility of strategic voting, in which case an individual may well express a preference for a candidate that is not the most highly evaluated. This may be a product of several different factors. The candidate that is most highly evaluated may be enormously unlikely to win the nomination (a problem with viability). Additionally, voters in the nomination process cast their votes at different times, as much as five months apart, rather than on the same day as is done in the general election. Therefore, cross-sectional designs (even those with panel elements) best capture current candidate evaluations. The actual decision may not be imminent in many states, or may have been cast some time prior to the survey, at a point when the candidate field was
substantially different.

There have been some attempts to examine these concerns in the literature. Abramson et al. (1992) show clearly that there are some voters with preferences that do not directly match evaluations, casting ballots for a candidate other than the one most highly evaluated. The work of Aldrich and Alvarez (1994) demonstrates how it is the emphasis of certain issues rather than the candidate's position that is important among a field of similar candidates. Their work also serves as an example of how largely arbitrary choices in specification must be made when modeling choice in the nomination.  

Given the argument that the perception of political figures is merely a special case of person perception (see Rahn et al. 1990), it is not hard to imagine a general scenario in which an individual is exposed to a candidate. Through whatever combination of external information and internal reactions each person uses, an overall evaluation of each candidate can be reached. Then, using some form of comparison, each individual can compare their own evaluations of the various candidates, selecting the one they prefer. This latter portion of the model, concerned with the movement from evaluation to preference, is a different process than evaluation. The most recent presidential election offers an example of how this may work. Individuals generated evaluations of Bush, Clinton, and Perot using whatever mechanisms are available.  

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8 By using candidate choice as their dependent variable in the model, Aldrich and Alvarez are forced to assume the voter compared each candidate to the front-runner. While this certainly may be the case, there is no evidence on which to base a test.
Imagine Perot is the most highly evaluated. The process of deciding which candidate to support at the ballot is more complex than just picking Perot. If the individual strongly disliked Bush, and only slightly preferred Perot to Clinton, it may have made sense to vote for Clinton even though he was not the most highly evaluated candidate. In a two-candidate race, this complexity should never arise. In a race with more than 2 candidates, it is clear that choice can be the product of a different process.

The overall goal of this research, then, is to explore the possibilities of adding an emotional response term to a more traditional model of candidate evaluation. Several key questions will need to be addressed over the course of the analysis: What is the basic structure of emotional response in the nomination campaign? Given the nature of emotional response and overall evaluation, how distinct are these concepts? What model specification should be used when adding emotional response to a model of evaluation? How strong is the influence of emotional response on evaluation once other terms are taken into account? It is these questions that drive the analysis.

In the process of answering the questions laid out above, results will be produced that will address an otherwise empty spot in the body of literature. Models of individual behavior in the nomination campaign that are driven by terms borrowed from the analysis of general elections fail to work satisfactorily. Models of the nomination that dwell entirely on the dynamic aspect of the process fail to capture the idiosyncratic features that each voter brings to the task. Finally, models that omit emotional response have ruled out the possibility of emotional response playing an important role in the process of evaluation. The work presented here will pull traditional models of
nomination behavior together with more social-psychological forms of modeling.\textsuperscript{9} This merged approach produces some form of a hybrid model with its own faults. However, by taking this approach, questions can be addressed that otherwise would be impossible to consider. One of the key aims of this approach was to produce a model that, while still generalizable, is closer to capturing the actual process driving candidate evaluation. The results will allow something to be said about what importance emotional response may have in the nomination campaign when compared to traditional models, while avoiding the confounding problem of combining the separate processes of evaluation and choice within a single model. This is something that has not been done previously.

Data

Given the lack of interest in emotional response over the last few decades, it is not surprising that there is no great stockpile of data waiting to be explored. In fact, once the question is stated as it is above, there are really only two data collections that are even remotely possible to use.\textsuperscript{10} The first is the National Election Study of 1980, which featured a major panel with 4 waves (January, June, September, and December), a minor panel with 2 waves (April and September), and the usual pre- and post- election design around the general election. Of the 8 different surveys, the first two waves of

\textsuperscript{9} Each of these two approaches are discussed in greater detail in the next chapter.

\textsuperscript{10} A third high quality study of the nomination period does exist, focusing on voters in the Super Tuesday states in 1988. Unfortunately, the emotional response terms, so critical to this analysis, are not asked in that survey.
the major panel are of primary interest here, with the first wave of the minor panel used in a subset of the analysis. The other data collection available is the National Election Study of 1984, which featured a rolling cross-section design throughout the primary season. Weekly samples were surveyed, all being cross-sectional in design. Both studies feature the same key measures (all of which are discussed later in the text).

Each design has different strengths. The 1984 study would allow some sense of the aggregate profile at any given point, while the 1980 design would allow for an over-time analysis to be done. The latter is a very attractive feature of the 1980 data. Additionally, the design of the 1980 study increases the number of respondents at any one time point.\textsuperscript{11} For some of the analyses to be done here, the smaller samples associated with the weekly design of the 1984 study would be problematic. For these reasons, this analysis is limited to the 1980 nomination season, using data from the major and minor panels of the National Election Study.\textsuperscript{12}

Other data options, such as experiments, were considered, but rejected for a variety of reasons. One of the problems of all experimental designs is a lack of external validity. This, combined with the difficulty of designing a clear manipulation of emotional response to some political figure (real or hypothetical) makes the experiment a less attractive option, at least at this point in the analysis.

\textsuperscript{11} The overall sample size for the Major panel is 1,004.

\textsuperscript{12} The data used in this research were collected by the Center for Political Studies, and made available through the Inter-University Consortium for Political and Social Research (Study #7763). Neither the original collectors of the data nor the ICPSR bear any responsibility for the analysis and discussion presented here.
The 1980 NES Panel data have been used in a number of other studies. Principal among these is Markus (1982), who examined the dynamic aspect of the data in some detail. For example, he uses a number of measures from the January and June data to estimate June candidate evaluation. Specifically, he examined overall evaluation in June as a function of overall evaluation in January and June measures of partisanship, candidate traits, and performance dissatisfaction. His analysis, however, did not include any emotional response terms. In his work, Markus found that the most powerful indicators of June evaluation were January's measure of evaluation and June's measure of candidate characteristics. The analysis presented here represents an addition to the literature by accommodating the understanding of emotions and behavior that has developed since the publication of Markus's article.

The 1980 Nominating Campaign

It is useful to review the general contours of the 1980 nomination campaigns, as this knowledge puts the candidates and how the public may have perceived each of them into some perspective. Each of the two major party campaigns will be considered in turn.

As the party with the incumbent president, it would not have been surprising to see no race in the Democratic contests, or at least no significant race. Instead, Jimmy Carter was faced with a candidate of national prominence in the form of Senator Ted
Kennedy of Massachusetts. How did an incumbent come to be challenged by a strong opponent? As President, Carter had faced difficulties both at home and abroad. Domestic troubles had included an annoyingly persistent bout with inflation, as well as an energy crisis. In international events, the President had brokered a peace treaty between Israel and Egypt that, while largely portrayed as positive, offered limited political reward for Carter. On the negative side, Carter's agreement to give the Panama canal to Panama was seen as an American retreat. Similarly, relations with the Soviet Union were strained, with conservatives feeling that Carter had not been tough enough in relations with the USSR. Politically, Carter was most at home in the moderate to conservative wing of the Democratic party. His actions during the first term failed to fully satisfy the most liberal elements of the party, thus providing an opening for a more liberal candidate to occupy that space. Kennedy's campaign represented an attempt to build a victory out of a coalition of liberal and moderate Democrats.

Once the nomination season was actually underway, the different strengths of the candidates were visible. Kennedy's weaknesses were issues of character. The Carter camp ran advertisements questioning Kennedy's honesty and morality. Such issues were raised even in the mainstream media, where Kennedy was questioned about his marital fidelity and the incident at Chappaquiddick. The Carter campaign was most susceptible to questions of presidential performance. A significant pool of potential swing voters expressed frustration with what the president was (and was not) doing.

Jerry Brown of California also sought the Democratic nomination, but in a very limited fashion. His effect on the campaign can be best described as minimal.
The Kennedy campaign sought to exploit this by raising issues and dissatisfaction with the administration. As the delegate allocation began, Carter showed a strong start. Kennedy, seeking a message that would resonate with the party faithful, strengthened his message as the liberal candidate. The two candidates ran strong campaigns, although the Kennedy campaign was lacking enough resources to contest every event. The edge went to Carter, who had a strategy that took full advantage of the rules on the distribution of delegates. Because of this, Carter was able to finish the primary season with a strong lead in delegates and an almost certain nomination. However, the Kennedy campaign remained a strong challenger even into the convention.

With the incumbent looking weak enough to be challenged by his own party, it is not surprising that there no shortage of contenders in the Republican party. Coming on the heels of his strong showing in 1976, former California Governor Ronald Reagan was clearly the front-runner as the nomination fight began. His right to represent the party was challenged across the ideological spectrum. From Reagan's own area of strength, conservative candidates Congressman Phil Crane, former Texas Governor John Connally, and Senator Bob Dole all sought the nomination. From the most liberal element of the party came Congressman John Anderson. Former Congressman George Bush and Senator Howard Baker represented the moderates in the party. Rather quickly, the field narrowed to Reagan, Bush, and Anderson, with Reagan having a clear grasp on the conservative wing of the party. Bush and Anderson were left to split what was left. After Bush showed a surprising strength early in the nomination contest, a resurgent Reagan camp began to take the front-runner position it had been expected to
take. The nomination was basically Reagan's to lose.

While Reagan consistently showed significant strength, Bush did sometimes win a state outright. Additionally, Anderson often managed to show a reasonable presence in the campaign, coming in a strong second on several occasions and rarely being left out entirely. Such a pattern, however, did not spell success in the campaign. Anderson withdrew from the contest for the nomination shortly after the Wisconsin primary, having failed to build a winning coalition. Bush continued to have his successes, winning a number of states. In the end, however, his campaign was hard-pressed to defeat Reagan in many states.

In contrast to the Democratic race, which pitted two nationally known figures against each other, the Republican race was more lopsided. Reagan was well-known from his previous bid, as well as from his previous career in entertainment. Bush, although a long-time political figure, remained relatively unfamiliar and undefined to most voters. He never fully overcame this disparity, and withdrew from the nomination contest in late May of 1980.

Comparing the two party nominations, the public was exposed to some similarities in both, as well as some differences. Both parties had numerous candidates at the start of the nomination period, although this is more true of the Republicans than the Democrats. Both the Democratic and Republican races end as two candidate contests in the latter stages. Bush and Kennedy each fail to secure the nomination, and both knew their fate prior to the convention. However, in the eyes of the public, these two men represented the alternatives to their respective party's front-runners. The
major difference between the two nomination environments is the comparison of a Democratic race between two nationally known figures and a Republican race that ran a well-known individual against a significantly lesser known person. Kennedy started his opposition to Carter with his own historical baggage. Bush was able to enter the race with little publicized background to defend, and with the chance to define himself to the public.

Turning back to the data collected in 1980, there are observations available in January, April, and June, with the January and June observations being 2 points in a larger panel design. What did voters see in January? In the Democratic race, the incumbent was faced by what appeared to be a strong challenger. With no delegates allocated yet, it was not clear just how strong Kennedy would be, but he did represent a nationally-recognized figure that had the capacity to dislocate the sitting president. On the Republican side, voters witnessed a Reagan campaign that was trying not to campaign. With Reagan expected to be the strong leader in the pack, the other candidates were positioning themselves as the alternative to the Governor. By the time of the April survey, things have changed significantly. In the Democratic race, the Carter camp has managed to build a strong base, although it is not clear how aware the public was of the increasingly long odds associated with the Kennedy campaign. The Republican race saw many of the candidates winnowed between January and April. Respondents who were interviewed in the April survey really had three Republican candidates to speak of: Reagan, Bush, and Anderson. The leader, Reagan, was pulling away at this point, with Bush and Anderson falling off the pace. By the time of the
June surveys, both parties have essentially selected their nominee. While Kennedy would try a rules challenge at the convention in one last attempt to obtain delegates, he was effectively out of the race before June. Moreover, this fact was likely to have been understood by more members of the public by this time. Among the Republicans, Bush's withdrawal from the race during the last week of May left Reagan as the only candidate. The timing of his withdrawal is so close to the time the survey is conducted that it is not clear exactly how voters may have reacted. Since the emphasis is on evaluation rather than choice, this is less troubling. Still, the interaction of the timing of campaign events with the structure of the data collection should be considered as the following results are presented.

**Structure of the Analysis**

The first step in this research is to review the literature on candidate choice and evaluation, with special consideration for material related to work on presidential nominations. This review is found in Chapter 2. The basic variables used to explain the political behavior of individuals, as well as the current understanding of the role of these variables, are discussed in some detail. Those elements found only in the study of nominations, such as momentum and the diminished role of partisanship, are singled out for additional consideration. The goal of this review is to develop the baseline model to be used in the analysis. Chapter 2 also contains the basic review of our understanding of emotional response. A number of competing ideas are present in the field, and each is worthy of some consideration. The question of exactly where emotions come from
may well be the most prominent and most intractable of all the questions asked. However, numerous other questions are also important. How can emotional response be measured? Are there any measurement problems associated with survey data? What kind of structure should this affective term be assumed to take?

The review of the literature in Chapter 2 leads into the first actual analysis, which is reported in Chapter 3. This analysis is concerned largely with identifying the basic structure of emotional response. Is it unidimensional? Is it multi-dimensional? If so, is it 2, 3 or more dimensions? How strong are the individual measures of emotional response from the NES? Does the aggregate structure appear to fluctuate across the duration of the campaign period? Do different aspects of the population have different structures of emotional response? It is these sorts of questions that will be addressed in this chapter. The findings here will guide the remainder of the analysis. The conclusions of this chapter, therefore, will greatly influence the rest of the research, as well as the nature of the conclusions drawn.

Once the basic structure is clarified, the next question is that of stability. How stable is emotional response across time? Does it reflect real changes in the campaign? Is the structure of emotional response largely immune to the campaign? How does the stability of emotion compare to the stability of other terms, such as evaluation? Is the structure of emotional response less stable for those individuals who learn about the candidate during the campaign? If the affective terms show little or no stability, and there is no clear linkage between any changes observed and the real world campaign events, the potential influence of emotion would appear to be reduced. Stability or
some systematic change in structure can both be dealt with. If the analysis in Chapter 4 indicates a random pattern of change, the remainder of the research will have to be reconsidered.

Once the structure has been clarified, and the question of stability has been addressed, the next task is to attempt to explicitly test the idea that emotional response is a meaningful player in the development of candidate evaluation. It is this difficult task that is reported in Chapter 5. This chapter draws on the understanding of the literature sketched out in the second chapter. It is also in this chapter that the greatest methodological difficulties are addressed. Serious questions about the specification of different models require attention. The implications of using the 1980 panel data are felt most strongly in this chapter (it is also this chapter that most closely parallels the work of Markus 1988). The goal of this portion of the analysis is to examine, using a variety of models, the nature of the relationship between emotional response, candidate evaluation, and a set of the core variables common to the literature.

The final chapter of this work attempts to consolidate the findings presented in the following pages, as well as discuss some of the limitations of those same findings. Additionally, a brief agenda of potential additional work is developed, with special attention paid to how measurement of emotional response may be improved.
Elections have long been the topic of extensive discussion and analysis. It is only in the recent era that these discussions have been focused on the level of individual behavior. Prior to this, there were simply no data available to make such discussions possible. It is in this period, roughly since World War II, that the study of the political behavior of individuals has evolved. The availability of high-quality data on individuals opened new avenues of investigation to researchers. The topic that has been most widely examined in the period since the 1950's has been the behavior of individuals in presidential elections. Even today, the presidential general election receives a disproportionate level of attention from researchers. Other elections, be they presidential primaries or sub-national elections of some form, and other forms of behavior outside of elections have been displaced to a large degree. The reason for this is largely data driven. There are several data sets on presidential elections that are available for secondary data analysis. This influences the questions that researchers are able to investigate.

The study of political behavior in presidential nominations was ignored for some time for other reasons. While primaries have been in use for almost 100 years, they
were the subject of very little investigation for the vast majority of that time.\textsuperscript{14} One of the principal reasons for this was the stunningly limited impact that the overall system of primaries had on the actual selection of the nominee.\textsuperscript{15} Reforms in the Democratic party following the 1968 election lifted the primary to new levels of use and importance. The party's demand for increased participation led more states to adopt the primary as a means of selecting delegates. In the years since 1972, well over half the states have used primaries to select an average of 68\% of the total convention delegates. This new prominence has attracted scholars. The existing body of literature on presidential primaries has emerged in the short time since 1972.

The study of primary behavior may be approached in a number of ways. First, the processes that are involved in a primary vote decision may be considered a subset of the processes found in the general election. Under this approach, research would focus on such things as issues, ideology, partisanship, candidate evaluation, and so forth. A second approach to primaries would be to look at the primary process as a unique event, unlike the better studied forces in the general election. One working with this view could focus on the unique aspects of primaries. The key differences include concerns about the over-time aspect of primaries (momentum), and the shifting context (differing number of candidates and different possible comparisons). Each of these two

\textsuperscript{14} Overacker's review (1926) is one of the only examinations of primaries and their effects in the period prior to the 1960's.

\textsuperscript{15} Prior to the reforms, certain states were often critical (such as West Virginia for Kennedy in 1960), but the nomination was not determined by the primaries.
approaches has been utilized to some degree in the literature.

The purpose of this chapter is to review the basic literature as it relates to the development of candidate evaluation in the nomination period. Given that little work has been done directly on this question, the review will include relevant findings from the study of general election behavior, as well as the work done on primary vote choice. The structure of the review will be to first discuss the various forces influencing behavior that are found in both general election and nomination environments, then turn to those elements unique to nominations. The final portion of the chapter will turn from the traditional elements used to explain mass behavior to the consideration of emotion. The basic literature relating to emotion will be discussed, with an eye to its application to the question at hand.

Forces Common to Primaries and General Elections

In an effort to understand the processes associated with voting in general elections, numerous factors have been explored. Some, such as partisanship, are often hypothesized to represent long-term forces. Others, such as issues or candidate specific terms, are associated with greater instability in the short-run. As interest in primaries has grown in recent years, there has been some effort to import these two classes of indicators from the general election into the primary context. The review below, far from inclusive, turns first to the long-term forces.

Partisanship Perhaps the most closely examined variable in the study of general elections is partisanship. In The American Voter, partisanship was a central
explanatory variable: "Most Americans have an enduring partisan orientation, a sense of party identification, which has wide effects on their attitudes toward the things that are visible in the political world" (Campbell et al 1960:529). In this study of the 1950's, partisanship was clearly viewed as a major determinant of the vote. As time passed, the link between party identification and vote was seen to decline. In a review of voting in the period 1952-1972, one set of authors concluded that "[O]ne finds party affiliation playing a smaller role in determining the vote" (Nie et al. 1979:53). Numerous works have attempt to place partisanship in the proper role have emerged in recent years (see, among others, Fiorina 1981, Jackson 1975, Markus and Converse 1979, and Page and Jones 1979). While each of these works varies in the manner of specification, all show that partisanship is related to the vote in general elections.

When the context is changed from general elections to nominations, the role of partisanship in the vote decision becomes less clear, and perhaps less important.

Addressing the latter first, the importance of party identification in a primary is limited. Primaries are, by definition, the tool by which the party (or party identifiers) selects a candidate to run in the general election. Although the rules vary from state to state, participation in a primary is usually among those who identify with a given party or are independents. Knowing that an individual is a Democrat is not of much assistance in predicting vote choice among a number of Democratic candidates. Thus, direction of partisanship holds little promise in understanding primary vote. However, the intensity with which an individual identifies with a party may prove to be a useful tool. It is not unreasonable to expect that strength of partisanship may be related to preference.
The lack of understanding about the role of partisanship in primaries clearly emerges when the studies using party identification are compared. Kenney and Rice (1987) build a nonrecursive model of nomination politics that incorporates ideology, issues, candidate qualities, expectations, and partisanship. In the 1980 election, they find that partisanship has little or no impact on nomination preference. In contrast, Bartels (1988) finds that, in 1984, the perception of the Democratic candidates varied with strength of partisanship. Mondale was viewed more favorably by strong Democrats, while Hart did better with weak Democrats. As Abramson, Aldrich, and Rohde noted: "It may sound odd that party identification mattered in a contest between two Democrats. But Mondale stood at the core of the established Democratic party, and Hart stood at the periphery" (1986:33).

Considering the mixed findings, the role of partisanship in primaries must be considered an unresolved matter. Only two elections have been reviewed in the literature, and the results differ. Of the different sides to the question, that with the most promise may be the question of partisan intensity and how that interacts with candidate choice and evaluation.

**Ideology**

In an effort to find another attitudinal variable of some stability, a number of scholars have attempted to use ideology as a factor explaining primary behavior. The role of this variable in the study of general elections has often been limited. Converse (1960, 1974) established this view early, when he described a mass public that contained few ideologues. The authors of *The Changing American Voter* challenged that Converse's conclusion as time bound (Nie et al. 1979a). Nie and
colleagues argue that the period studied by Converse was one marked by a lack of ideological politics. The period since then has been one where ideology has been more prominent. Nie et al. argue that a result of this increased visibility is an increased portion of the electorate utilizing ideological distinctions. That is, ideological times promote the use of ideology as an aid in evaluation.16

Other work has approached the role of ideology in varying ways. Page and Jones (1979), in their nonrecursive model, use ideology as one of the exogenous variables. It was found to relate weakly to comparative policy distance and current party attachment. Hamill, Lodge, and Blake (1985), in a study of alternative schema, found that a liberal-conservative schema was used by some respondents to evaluate political stimuli. However, the ideological schema was utilized correctly less often than the class or partisan schema. Ideology, then, has not been a leading explanatory variable, largely as a function of the limited number of ideologues in the electorate.

Downs may have been correct when he wrote "Ideologies help [the voter] focus attention on the differences between parties.... With this short cut a voter can save himself the cost of being informed upon a wider range of issues" (1957:98). However, the primary offers a different set of opportunities. In a general election, the parties (and the candidates) are likely to be seen as representing significantly different ideological elements. While the results are mixed, the literature does suggest that the candidates in

16 There has been some debate about the validity of the findings reported by Nie and associates (1979a). See Sullivan et al. (1978, 1979) Bishop et al. (1978, 1979), and Nie et al. (1979b).
a primary may not be perceived as that distinct with respect to ideology. It would not uncommon for the differences between the nomination candidates to be smaller than the difference between the two eventual party nominees.

John Geer (1989) found that ideology did not play much of a role in the primaries of 1976, 1980, and 1988. Across the three election periods, Geer found that, on average, about 50% of the population did not possess enough information to make ideological voting possible. In contrast, he shows that during the period of the general election, just over 30% of the public lacks the critical information (Geer 1989:72). Geer argues that the difference is a product of the candidates’ desire to remain ambiguous in the primary period.

In a more sophisticated analysis, Kenney and Rice (1987) find significant reciprocal links between ideology and nomination preference. For the nomination race of both parties in 1980, the authors find the relationship between ideology and preference to be second in strength only to candidate qualities. However, the reciprocal link from preference to ideology is in both cases equal to the path from ideology to preference, suggesting that some degree of projection is present.

Bartels (1988) notes the role of ideology in a number of nomination periods. Looking at the 1976 Republicans, he shows how Ford’s electoral success varied with the ideology of the state. Facing the Reagan challenge, Ford did much worse in states
with a conservative Republican party than in states with moderate or liberal parties.\textsuperscript{17} Ford’s portion of the vote varied about 30 points from the least conservative state to the most conservative (1988:211-214). Similarly, looking at the 1980 Republican race, Bartels shows how Reagan did about 20% better against Bush in conservative states than he did in less conservative states (1988:240). Shifting to the 1980 Democratic race, the tendency of Carter to do best in moderate states with declining success as the state moved to either extreme is noted (1988:221-226).

Some research suggests that the role of ideology may vary with party. For instance, Wattier (1983b) finds little evidence to support a meaningful role of ideology in the 1980 Democratic nomination. His analysis of the 1980 Republican race shows that ideology does play a critical role in explaining preference. He writes, "When primary voters perceive a difference in candidate ideologies, they generally support the candidate closer to their own ideology" (Wattier 1983a:1023-1024). Others have found results that, like those of Wattier, show ideology is more likely to be a factor in Republican primaries. Norrander (1986) found ideology to be a significant correlate of primary vote in the 1980 Republican race. The previously discussed model by Kenney and Rice (1987) showed a role of ideology for Republicans that was much greater than for the Democrats.

\textsuperscript{17} Bartels conservatism index was based on the state’s past convention voting patterns, general election results from that state, and the ideological ratings of the state’s congressional delegation (1988:211).
The findings in the literature fail to show consensus on the role of ideology in primary vote choice. Does the impact of ideology vary with party? Does the role of ideology change from year to year, reacting to the context of the race? Until additional elections and data are available, the uncertainty about these findings will remain. It is clear, however, that ideology can have a significant impact in the nomination process, and should be considered in any comprehensive model.

Thus, a brief review of the two major long-term forces associated with the development of vote preference and candidate evaluation suggests that the role of these items in the nomination period is far from clear. Partisanship may matter, but not in the usual sense of direction being key. Rather, the strength of the link to the party may be critical. When considering ideology, it would appear that it may be a significant force at some points, but that no clear understanding exists to explain why this is so. Even given this level of understanding, it would seem obvious that partisanship and ideology would need to be accounted for in any model of candidate evaluation during the nomination season.

The other general class of indicators discussed in the literature involve what can be broadly described as short-term indicators. These items are simply not as stable as the other terms are hypothesized to be. The values of the short-term variables may well differ across the period of the campaign. The principal short-term forces discussed here involve the role of issues and candidate specific forces.

*Issues* The role of issues in presidential elections is a well-explored area. Policy based voting has been addressed in numerous studies over the last four decades. Campbell *et*
al (1960), established the early benchmark that limited issue voting was to be found in the American electorate. Some later authors have claimed that the findings in The American Voter were a product of the times, and that the level of issue voting increased in the 1960's (Boyd 1972; Nie et al. 1979a; Pomper 1972). This claim has been, at least to some degree, undermined on methodological grounds (see, for example, Margolis 1977). Other work on the role of issues has distinguished between the "easy" and "hard" issues, where easy issues tend to be symbolic rather than technical and focused on the ends rather than the means (Carmines and Stimson 1980).

Three criteria for issue-based voting were mentioned by Campbell and his colleagues: the voter must have a position on the issue; some level of intensity on the issue must exist; and the voter must perceive differences among the candidates on the issue (Campbell et al. 1960:170). These standards have been incorporated into a number of studies of issue voting. The Page and Jones (1979) work uses comparative policy distance (distance between the voter and the candidates on various issues). The Markus and Converse (1979) model includes the issue stands of the voter at multiple time points, as well as the voter’s perception of the candidates’ stands. Both of these studies, as well as that of Jackson (1975), find some issue voting in the electorate. However, other terms always carry greater impact on the vote.

Just as in the study of the general election, the role of issues in primary voting behavior has been rather well explored. Writing as far back as 1926, Overacker expressed concern for issues (or lack thereof) in presidential primaries.
The presidential primary laws at present in operation do not in themselves insure clean-cut, nation-wide divisions of opinion within the party - that would of course be impossible under any system, for there are times when there are no issues. The most that can be expected is a system which brings to a head deep-seated differences threatening to poison the party from within, which brings public opinion to focus upon the questions at issue, which shows up the strong and weak points of the candidates, and which forces party leaders to show their colors in the open. But it cannot be claimed that the existing presidential primaries have met these requirements in all cases (Overacker 1926:116).

Clearly, Overacker was concerned about the small role issues played in the first years of this century. Current research suggests that her conclusions extend beyond the Progressive era.

The overwhelming majority of research of primaries suggests that issues are not a major force in the development of preferences. Daniel C. Williams and his colleagues (1976), looking at the 1972 candidates, found issues to be much less important than candidate qualities in the development of preferences. J. David Gopoian (1982) found that issue voting was present only in minimal levels of the 1976 nominations. He did find that Republicans were slightly more likely to engage in issue voting than Democrats. In her examination of the 1980 nominations, Barbara Norrander (1986) found that issues largely failed to correlate with vote. The nonrecursive model of Kenney and Rice (1987) did show some issue voting to be present in both nominations of 1980. Just as Gopoian noted for 1976, Kenney and Rice did find that issues played a slightly larger role in the Republican race than in that of the Democrats. In their model,
issues always exerted less influence than ideology or candidate qualities. Henry Brady and Michael Hagen (1986) noted that, in 1984, the voters possessed little information on policy issues. They infer that the voter's limited knowledge of the candidate's policy stands prohibits issue based voting. Alone in arguing to the contrary, Bartels (1985) works to show that voters did utilize comparative issue positions in the 1980 races.\(^1\)

A portion of the literature has been concerned with the degree to which voters can learn about the candidates' issue positions. Thomas E. Patterson (1980), in a panel study of the 1976 elections, tracked information levels over several months. Little, if any, information was learned about those candidates who did not survive the primaries (in this case Udall, Jackson, Harris, Brown, and Reagan). On the other hand, significant learning did take place about the issue positions of Carter and Ford. Larry Bartels (1988), in what is the most ambitious study of primaries to date, describes the 1984 nomination period as one that did allow the public to learn about the candidates. Unfortunately, the majority of Bartels' work deals with general familiarity rather than with knowledge of issue stances. Regardless of that, he does show that some learning took place. Keeter and Zukin (1983) present results that conflict with those of Patterson and Bartels using a measure of willingness to place the candidate on issue scales, with

\(^1\) In a later work, Bartels (1988) argues that the small role of issues in primaries stems from the fact that the candidates are typically unknowns. The critical attention a candidate receives after doing well (Gary Hart in 1984, for example) makes it appear that no issues are discussed. However, Bartels argues that it is during this period that the public is learning about the candidate. He also notes that projection effects are strongest for unknown candidates, thus clouding the role of issues to an even greater degree.
no penalty for incorrect placement (similar to Bartels' general familiarity). Even with this relatively easy test, little learning was shown in the 1980 campaign.

Patrick Kenney (1988) helped define the role of issues in a paper on the projection and persuasion hypotheses. Examining the 1980 nomination, Kenney finds substantial evidence of voters moving their preferred candidate closer to their own position (projection). No support was found for candidates swaying voters to adopt new issue positions (persuasion). With these findings, it becomes apparent that voters are able to view themselves in agreement with their candidate, even with no real issue knowledge. What may appear as issue voting may actually be little more than a rationalization.

Candidate Qualities  Moving beyond such things as partisanship, ideology, and issues, some researchers have turned to the role that candidate qualities may play in the general election. Campbell and colleagues (1960, see also Stokes 1966) found that the personal qualities of the candidate were strongly related to candidate preference. Their results were based on the open-ended like-dislike questions. In a similar fashion, Page and Jones (1979) utilize the pro-Republican and pro-Democratic replies to the open-ended questions (including only those that dealt with leadership or personality) to assess candidate qualities. They did find that the evaluation of personal qualities had an effect on comparative candidate evaluations in 1972 and 1976. Unfortunately, the authors merely used the difference in positive responses rather than the content of the responses. However, this work is one of the first that works to relate candidate specific traits to the vote decision.
Markus and Converse (1979:1064) also use a personality measure. They examined a question that asked if the candidates had the "kind of personality that a president ought to have." The results presented show that the personality traits had a larger effect on evaluation than did issues and party. This work, just as that done by Page and Jones, utilizes not the content of the evaluation, but rather the differences in evaluations.

The role of candidate qualities in the study of primary voting appears to be very significant. Numerous authors have noted, often after finding the issues, ideology or such fail to play a meaningful role, that candidate qualities or traits are key to understanding the process. Gopoian suggested that, since issues failed to explain the vote in 1976, "personal characteristics of the candidates played a critical role in determining the candidate preferences of voters" (1982:544). Williams and colleagues, examining the 1972 New Hampshire primary, concluded

In short, the role of personal characteristics, as perceived by the electorate, appeared to be an important factor in decision making in this primary election, perhaps for the majority of voters the crucial factor (1976:47).

This conclusion was based on a series of survey questions that asked about the respondents' perceptions of candidate traits such as honesty, personal attractiveness, being a capable leader, and being patriotic.

In his panel study of the 1976 election, Patterson (1980) found that the image of the candidate was largely stylistic. Details mentioned by respondents tended to involve
such things as personal background of the candidate, personality, and other nonpolitical aspects of the candidate. For example, of those who had an opinion of Carter by the April wave, 67% noted some stylistic component of the candidate (Patterson 1980:134).

Moving to later studies, Wattier (1983b), Norrander (1986), and Kenney and Rice (1987) all examine the 1980 primaries. Wattier, using exit poll data, found that candidate traits (trust, leadership, and a retrospective evaluation of Carter) could accurately predict the majority of the vote, while ideology was able to predict only a small portion (1983b: 273-276). In her analysis, Norrander found that the most common correlates of vote were candidate quality terms. These terms were largely the themes stressed in the candidates' campaigns. The traits included such things as honesty, cares, experienced, and so forth (1986: 159-163).

The Kenney and Rice (1987) paper utilizes a scheme similar to that used by Page and Jones (1979) in their study of general election voting. That is, the respondent was asked how well a series of seven words described the candidates. Comparative candidate scores were then calculated on the basis of these responses. The results presented by Kenney and Rice show that candidate qualities had the largest effect on candidate evaluations of all independent variables. For example, the Democratic model had candidate qualities having twice the impact on evaluation than did ideology (1987: Figure 2).

Candidate qualities have been found to play a role, perhaps the dominant role, in primaries across a number of years and in both parties. Candidate qualities are the most commonly cited reasons for supporting a candidate. In multivariate analysis, candidate
traits emerge as one of the strongest predictors of vote. In the study of presidential primaries, where so few of the traditional explanations seem to work, some measure of candidate qualities may be the missing element.

**Forces Unique to Primaries**

The presidential primary differs from the general election on a number of counts. The competition is within a single party rather than between parties. There are often more than two candidates from which to select. Voters in one state may face a very different set of choices than voters in some other state. Finally, the process of presidential nomination is one that runs over a period of time, in contrast to the single day general election. When combined, this set of differences makes the presidential primary vote decision one that is unique in American politics.

Of the items that distinguish the presidential primary from the general election, the most intriguing (and perhaps hardest to fully understand) involves the over-time aspect of the nomination period. Under the current system, voters may be exposed to five months of primaries. Coverage of these primaries focuses largely on the successes and failures of the candidates over the course of the nomination period (Patterson 1980, Brady and Johnston 1987, Brady and Hagen 1986). Such information can then be used by the voter as preferences are developed.

The knowledge that becomes available as a result of the over-time aspect of primaries has been related to a number of topics. Included among these are expectations, momentum, viability, electability. Each will be discussed in turn, paying
attention to what role, if any, they play in the development of presidential primary preference.

Expectations

Expectations are perhaps the most discussed of the dynamic elements of primaries. A candidate may "win" a state by coming in second or third if he or she does better than expected. Likewise, the candidate who won on votes may "lose" the state if his margin is not as large as it was expected to be. The mass media, with their emphasis on the horse-race, use opinion polls to play the expectations game throughout the primary season. Those interested in examining the role of expectations in greater detail have, unfortunately, been limited by the type of data available. Thus, this often discussed topic is under-analyzed in the study of voting. However, some recent efforts have been made on this front.

Bartels (1985) discusses when expectations mattered in the development of preferences during the 1980 campaigns. He found that the impact of expectations on preferences was highest for Carter in the early portion (January-February), and then disappeared in the latter stages of the campaign. Bush benefited enormously from high expectations in the early portion of the primary season. The trend for Bush also dissipated in the later states. Bartels allowed preferences to have a reciprocal impact on expectations. He found a rather constant level of projection in the electorate. The conclusion he drew from his analysis was that expectations (and the ensuing

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19 Expectations may exist for any election. However, since most elections take place at a single point in time, expectations are unable to have an impact on that event. The sequential nature of primaries allows expectations to become a term of significance.
bandwagon) matter most when no single candidate dominates the campaign, as was true in the early portions of the 1980 race.

Utilizing the same data set as that used by Bartels, Kenney and Rice (1987) attempted to estimate the impact of expectations on preference, as well as the reciprocal path from preference to expectations. The findings they present are in clear conflict with those reported by Bartels. Kenney and Rice find the path from expectations to preference is small for both the Democrats and the Republicans. The path representing projection (running from preference to expectations) is much larger for voters in both parties. They concluded that

respondents were more likely to choose a candidate first and then come to expect that candidate to secure the nomination rather than basing their preferences on who they thought would secure the nomination (Kenney and Rice 1987:17).

Kenney and Rice, then, describe an election that has no expectations curve or bandwagon.

The differences between the two studies may stem from the estimation techniques used. Bartels utilizes two-stage logit to predict dichotomous variables. Kenney and Rice used OLS, predicting to comparative candidate evaluation (differenced feeling thermometers). Of the two, Bartels’ approach is more appealing, in that he is predicting directly to his variable of interest. The use of the comparative evaluations by Kenney and Rice allows a more understandable method of estimation to be utilized, but their dependent variable is evaluation rather than preference. In the context of the primary, it may not be safe to assume that these are equal.
Momentum  

A dynamic element of primaries that is related to expectations is that of momentum. Discussion of this somewhat nebulous force dominates the media during the election period. The campaigns of Carter ('76), Bush ('80), Hart ('84), and Reagan ('76) have all been discussed in terms of momentum. Indeed, Bush made momentum a household word in 1980 when he proclaimed "What we'll have, you see, is momentum. We will have forward ‘Big Mo’ on our side, as they say in athletics" (Greenfield 1982:39-40).

In the realm of academic inquiry, momentum has been explored to some degree. Bartels (1988), examined the role of momentum across a number of years. To Bartels, momentum is that somewhat difficult to define force that propels one otherwise nondescript candidate ahead of the pack. Even as he begins his study of momentum, Bartels acknowledges that there is a "certain ineffable quality about it" (1988:4). The critical elements of momentum, as described by Bartels, include the media coverage of the horse race aspect of the primaries, the level of uncertainty present in the electorate, political predispositions of the voters, and expectations. These four terms interact to produce the "Big Mo" that is so highly valued by candidates.

Bartels argues that expectations are perhaps the most critical element of momentum. Throughout his book, he cites numerous cases of candidates doing well early on, and gaining visibility, press coverage, and so forth. In each case, it is not the absolute margin of victory that promotes the candidate, but his performance relative to what was expected of him. An insightful example is that of Jimmy Carter in 1976. He received an enormous boost from his victory in New Hampshire (beating Udall by 5%),
his fourth place finish in Massachusetts, and his victory over Wallace in Florida. His standing in the polls went up 25 points as a result (Bartels 1988:4). Bartels claims that expectations matter in three important ways. First, in what he calls the "internalized" effect, expectations influence candidate evaluation, which in turn influence preference. Second, the "direct" effect is the impact that expectations has directly on preference. Third, the "interactive" effect involves expectations effecting choice both directly and through the evaluation of the candidate (1988:119-123). The total impact of expectations, as presented by Bartels, is quite impressive. Considering Gary Hart in 1984, if an individual's assessment of Hart's chances were to increase from 10% to 20% in the early portion of the race, the probability of that individual supporting Hart would increase by approximately 25 percent.

Bartels' argument, then, depends on the relationship between media coverage of the race, higher levels of uncertainty in the early portion of the period, the political predisposition that would lead one to look for an alternative candidate, and awareness of expectations about how various candidates should do. These four forces can combine to start a bandwagon rolling. The exact essence of this bandwagon is unclear. Bartels does lay out alternative versions of what momentum may be: strategic voting, cue-taking, contagion, and support a winner (1988:108-112).

Others have examined the importance of momentum without going into the exhaustive detail that Bartels presents. Stanley and Hadley (1989) discuss the possible role of momentum in the 1988 Super Tuesday primary. Using the Center for Political Studies' Super Tuesday survey, the authors found that knowledge of previous success
or failure did indeed have an impact on preference. Those respondents who were unaware of the winners in Iowa and New Hampshire assessed Al Gore's chances of winning the nomination at 50-50. Those who did know that Gephardt and Dukakis had wins under their belt gave Gore just over a 30% chance of winning. Preferences are also shown to move with the previous success. After Gephardt won Iowa, the percent of the sample preferring him rose from 8 to 30%. This is clearly evidence of some variety of momentum.

John Geer (1989) examines the impact of momentum in the 1976 and 1988 nomination campaigns. He finds results that are similar to those presented by Bartels. However, he disagrees with Bartels on the conceptual structure of momentum. The crucial element in the Bartels approach is the media's coverage of the horse-race. The public learns this information, and the knowledge of who is ahead becomes an element in the decision process. In contrast, Geer argues that it is not the knowledge of who is ahead, but the media's reaction to success that has an effect on the voters. In Geer's view, the media operates with a set of expectations about who will win in each state. The type of coverage each candidate receives is determined by how that candidate does relative to the media's expectations. The public then reacts not to the news of who is ahead, but to the different type of coverage given to those candidates who "beat" the expectations of the media. The critical component in Geer's work is that portion of the electorate that is either uncommitted or weakly committed to one of the candidates. It is this group that can be most easily swayed by new information about new candidates.
Viability & Electability

Viability and electability refer to the candidates' perceived chances of winning the nomination and the general election, respectively. The dynamic aspect of the nomination allows these two forces to vary over the course of the primary season as different candidates surge and fade. The comparison of these elements also allows one form of strategic voting to be explored.

Brady and Johnston (1987) engage in the most detailed exploration of viability and electability. Utilizing the 1984 "rolling cross-section" data, they demonstrate that the perceived electability stays largely constant for the major candidates. On a scale of 0 to 100, Reagan moves between 75 and 81, while Mondale operates in the 51 to 56 range. Less realistic candidates had a larger range of movement (Glenn, for example, moves 20 points). Viability demonstrates much more movement. Reacting to the ups and downs of the campaign, Mondale's perceived viability moves within a 20 point range. Other candidates also show significant movement.

Moving to a model that predicts primary vote, Brady and Johnston find that viability and electability both play important roles. A 10 point decrease in the perceived viability of Mondale would result in a 10% change in the vote (5% drop for Mondale, 5% increase for Hart). Electability is shown to have the effects that would be expected. That is, as a voter's perception of Mondale's electability increases, it becomes more likely that an individual will support him. Likewise, higher perceived electability levels for Hart are associated with greater levels of Hart voting (Brady and Johnston 1987:178-184).
In contrast to the work of Brady and Johnston, Abramowitz (1989) finds viability did not have a direct impact on primary vote choice in the 1988 nomination. He found that viability had a nonsignificant path to choice. However, electability did have a direct and significant impact on vote. Abramowitz did find that viability exerted an indirect influence on choice through electability.

Shanks et al. (1985) examined the 1984 Democratic nomination, attempting to determine how viability and electability related to preference. They attempt to explain evaluation of Mondale and Hart as a function of a number of variables, including viability and electability. They found that Hart’s evaluation was, during the early period, related to his viability. However, as the campaign ran its course, the emphasis of the voters shifted from his viability to the electability of Hart and Mondale. Mondale’s evaluation, on the other hand, was related to his electability throughout the race, with Hart’s electability being significantly related in the latter stages. Preferences were largely equal to preferred candidate in terms of overall evaluation.

In her analysis of exit poll data from 1980, Norrander (1986) finds a pattern that is similar to that noted by Shanks and colleagues. Although her data are much more limited, she does find that electability was a significant correlate of preference in the late stages of the nomination season.

The work of Brady and Hagen (1986) represents what may be the most detailed examination of viability in primaries. Utilizing the 1984 rolling cross-section data, they demonstrate the learning that takes place over the period of the nomination. Some learning took place in each of four areas: viability, electability, candidate issues, and
policy issues. The greatest level of information voters possessed was that dealing with candidate issues. Knowledge of policy issues was the lowest of the four, with electability and viability holding the middle ground.

Examining this learning in greater detail, Brady and Hagen found that perceptions of viability were significantly related to the media’s judgement of the candidates’ chances, as operationalized by UPI coverage (1986:29-31). The public appears to learn of the candidates’ viability early in the campaign. The same perceived level of viability at the end of February and the end of March is associated with 16 and 8 points change, respectively, in Hart’s perceived viability.

When the learning of candidate traits was examined, Brady and Hagen demonstrated that this learning took place at different rates for known and unknown candidates (1986:31-34). Candidates with national reputations (such as Reagan and Mondale) had great stability over the course of the nomination. Candidates that were less well known (Glenn, Jackson, Hart) showed marked increases in the stability over the course of the nomination.

In their discussion, Brady and Hagen (1986) comment on the nature of learning in the primaries. Information on viability of the candidates is available early, and is picked up by the public. More specific information about candidate qualities, policy questions, and so forth, are not learned for some time. In that interim period, the authors suggest that the electorate infers specific information about the candidates from their perception of viability.
Discussion

The literature reviewed in the previous pages leads to certain conclusions. The first general conclusion is that the "common" predictors of vote and evaluation fail to work as well in the context of presidential nominations. Partisanship plays a minor role as a result of the structure of primaries. Ideology, which was turned to as an alternative long-term variable, matters to a moderate degree only in some years. Issues have been found by nearly all researchers to be of minimal value in predicting the vote, perhaps due to the similarity of the candidates in the same party when compared to the larger difference present in the general election. Candidate qualities have been found to be perhaps the dominant force in the development of candidate preference in primaries.

The second point to note is how the dynamic aspect of primaries has added a new dimension to the analysis of candidate evaluation and preference. As the primary moves from state to state over a period of weeks, the voter is exposed to an enormous amount of information about each candidates' success (or lack thereof). This new information may lead to a different type of decision process.

Consider the elements of the literature just reviewed. Traditional methods of explanation do not work as well in the primary as they do in the general election. The reasons for this are part structural (primaries within party reduce the importance of partisanship) and part attitudinal (voters have less information about the candidates). Some effort has been made to modify the models in order to accommodate the unique aspects of the nomination season. These efforts largely revolve around the dynamic pattern of the primary period, usually attempting to take into account the respondent's
sense of how the various candidates are doing.

On one hand, the fact that horse race information has been shown to be core information both transmitted and received makes sense. This reflects the limits of the media and the voters, as well as the desires of the candidates to sometimes remain ambiguous. On the other hand, this is, at some level, a unsatisfactory explanation of behavior. Why is information on which candidate is doing well related to vote and evaluation? Why do voters appear to be drawn to those candidates who are doing well? The findings in the literature do not offer a satisfactory answer to these questions. Voters are operating in a low information environment, and generally doing so with limited enthusiasm. The behavior of a relatively uninformed voter who is seeking little other information will not be well accounted for by a traditional sort of model. Saying that this voter is being propelled only by the knowledge of who is doing well seems almost nonsensical. Imagine a model of evaluation for general election candidates that used knowledge of the candidates' standing in the latest polls as a major indicator. Such a model would never see the level of acceptance that the similar primary model has achieved.

One possible take on this is that the current models of political behavior are missing something. As noted in the previous chapter, the research presented here is exploring the idea that this missing element could be emotional response. Most existing

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20 It is worth noting again that the proportion of the population that turns out to vote in primaries tends to be more informed than those that do not. However, the data are drawn from the total population, not just likely voters.
models of behavior can be classified into one of three categories, at least with respect to
the treatment of emotions. The first category is that set of models which completely
omits emotion. The second class of models are those that appear to talk of emotion, but
in the end treat overall evaluation as if it were emotion. The third class of models are
those that talk of emotions indirectly, but never really address the issue squarely. Each
of these various approaches can be found in the literature to some degree. In the
following section, examples of each general approach are considered, especially the
relationship to emotions.

The first broad classification of models is the one that omits any specific
mention of emotion. This is the most common sort of model of candidate choice and
evaluation found in the literature. One example of this is the work of Gopoian (1982)
and his examination of issues and candidate choice in the 1976 presidential primaries.
His analysis examined primary candidate choice only in the context of issues (both
economic and non-economic). There was no inclusion of sociological or psychological
elements. In another example, Lyons and Scheb (1992) model candidate evaluation as a
function of partisanship, ideology, and a constructed issue scale. In their work, they are
essentially using a comparative measure of overall evaluation as a proxy for vote
preference. The only manner in which emotions are present in the model is the degree
to which the measures used contain affective elements.

The second broad class of models is that approach that makes reference to
emotion, but treats overall evaluation as emotion. The work by Page and Jones (1979)
represents one version of such a work. Their complex model includes a comparative
evaluation term as the variable through which all other factors must go in order to influence vote choice. The work by Rahn et al. (1990) models vote choice as a product of a multi-stage process. The actual vote is determined by partisanship and comparative affect. The affective term is theorized to be a product of some mixture of political information and candidate assessments. Under the model proposed by Rahn et al., the affective response that an individual has to a candidate is determined only after issue and ideological proximities have been considered, as well as comparative assessments of candidate competence and personal traits have been made. In the core sense of the model, then, this model resembles the Page and Jones model that posits comparative evaluations as the last step prior to the actual vote decision.

The third general class of models are those talk about affect in indirect ways as being of some importance, but never really makes an explicit case for it. Brady and Sniderman's (1985) development of attitude attribution based on a likability heuristic reflects the use of some sense of affect while not explicitly working with the elements of affect. In their model, individuals are posited as using a general sense of likability for various groups to fill in gaps in specific knowledge. The actual attribution is a

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21 Specifically, affect is a product of the assessment of the candidates' competence and personal qualities, as well as domestic and foreign policy issues and ideology. The assessments of competence and personal qualities are determined by domestic and foreign policy issues, ideology, and partisanship.

22 The key difference being that the Page and Jones model used feeling thermometers to assess overall affect towards the candidate, while Rahn et al. used two double-ended emotional response scales and overall evaluation of the candidate (as like-dislike) on a 7 point scale.
function of the individuals' own beliefs and their affective feelings towards the groups. The degree to which an individual likes a group was measured by the use of the feeling thermometer. The results indicated that, in the case of attitude attribution, the critical effect was the interaction of feelings towards the group and the individuals' own feelings on the issue. A second example of a model that includes affect in some fashion without really calling it by name is the work by Conover (1984) on the influences of group identification on political evaluation. In her work, Conover examined the role of not just objective group membership, but also identification with a group. This identification was operationalized as identifying which group the respondent felt "closest" to. The "closer" the respondent feels to a group, the more the respondent feels that group is like him or herself. Conover uses the language "people who are most like [the respondent] in their ideas, interests, and feelings about things" (p. 766) to describe how respondents tend to view the group that they feel closest to. The psychological underpinnings of group identification are not clear, but it seems most likely that the roots of such identification rest in objective membership, as well as some affective element. If an individual feels a great deal of pride or disgust with a group in which they are a member, their sense of identity in that group will certainly be influenced by their affective response.

The fact that the majority of literature fails to explicitly consider emotion does not mean that it has received no attention. There have been a series of papers dealing with the basic structure of affective response to political figures. Abelson et al. (1982) reported preliminary results on a variety of (what were then) new survey measures, one
of which was the measure of emotional response. With respect to emotional response, they found two dimensions (distinct positive and negative structures) with a weak association between the two. Marcus (1988) examined the basic structure of emotional response to the 1984 general election presidential candidates, finding two basic dimensions of weak to moderate relation. This level of relationship between the dimensions is a far cry from the almost deterministic relationship that is assumed by many to exist between positive and negative emotions.

Those actually considering emotions have done more than just consider the simple structure. Marcus and his colleagues (1991) considered the nature of emotional response to candidates during a campaign. They suggest that individuals depend on their emotions to evaluate the state of the world around them. That is, are things going as they should be? Are there new threats on the horizon? The authors point out how this fits into our understanding of political campaigns, in that candidates will often seek to portray the opposition as a threat, thus playing off emotions. The reverse is also true, in that it is desirable for a candidate to generate positive emotions among his own supporters while leaving the opposition feeling non-threatened. Additionally, Marcus and MacKuen (1993) examined the role of emotions in the general decision to participate in politics. Feelings of anxiety (negative emotional response) about one candidate were associated with learning about that candidate. Feelings of enthusiasm
(positive emotional response) were associated with increased campaign involvement.\textsuperscript{23} In their examination of emotions and voter preference, they found that voters with a high level of anxiety (high negative emotion about either general election candidate) were less likely to rely on partisanship than would be expected otherwise. Another example of work that attempts to deal with the complexities of emotion is that by Victor Ottati and his colleagues (1989). Through a series of experiments, they show that a respondent's affective state does have an influence on political judgements. In the case of the experiments, they demonstrated that affect-focused subjects demonstrated different views than subjects who were asked to concentrate on consequences of a statement (that is, the more cognitive side of consideration).

Conclusion

Over the last 40 years, our level of understanding in the area of candidate choice and candidate evaluation has dramatically increased. We have been able to move from rather broad and generalized statements to very specific statements about the nature of political behavior. The literature just reviewed demonstrates just how high our current level of understanding actually is, at least in the context of the general election. When the consideration switches to the presidential nominating period, our tried and true explanations of behavior weaken significantly. Structural and attitudinal differences

\textsuperscript{23} Unfortunately, the operationalization of campaign involvement is actually campaign interest. Those who felt higher levels of positive emotion at one point were more likely to report increased levels of interest in the campaign. It is not clear that the increased interest is translated into increased involvement in campaign affairs.
between the nomination and the general election appear to be the main reasons for our loss of understanding. Steps taken to adjust the models for those elements of the system that are unique to the nomination do help us regain some purchase on the process. However, these modifications leave the explanations less attractive.

Given the problems in the traditional literature, the option of adding emotions to the collection of explanatory variables appears to be an interesting proposition. While the vast majority of work in political science has not directly dealt with emotion, some work has been done in the area, both specifically on the topic as well as more generally. These works find some significant support for affect in a variety of circumstances. In the following analysis, the question of affect in the evaluation of candidates for the party nominations for president will be considered. The relevant literature on emotional response will be addressed as need be in each of the following chapters.
Prior to the incorporation of affect into a larger model of evaluation, a decision regarding specification must be made. Specifically, it must be determined if affect is best modeled as a single, unidimensional construct, or whether a more complex dimensional structure is needed. The goal of this chapter is to identify the most appropriate structure to use when modeling affective response.

Two basic guidelines will structure the search for an appropriate specification. The first item of consideration is the "theoretical fit" of any given model. Different theories are associated with different empirical specifications. It would be entirely possible to generate a solution that satisfies the standard statistical tests for fitting a model, yet the same model may fail to work in any theoretical sense. Thus, the quality of the theory supporting any model is an important part of any test. The second criteria by which alternative models will be judged is the quality of statistical fit. No matter how attractive any given approach may be in a general sense, a failure to resemble the empirical world represents a significant shortcoming.

Three different structures may be hypothesized from existing literature on affective response: a simple one dimensional structure, a two dimensional structure, or a
solution with more than 2 dimensions. Each of the alternatives is described below, with the basic implications identified.

First, emotional terms may be represented as a simple, bipolar scale with the ends anchored by extreme positive and extreme negative affect. Under this approach, the presence of one type of affect (say, for example, extremely positive feelings about candidate X) will, by definition, preclude the presence of other affective responses (in this case, indicating a total lack of negative affect). This results from the manner of scale construction. If the midpoint is neutrality, all points to one side indicate the presence of positive affect (albeit in varying degrees), and a complete lack of negative affect. Similarly, moving to the other end of the scale locates a position of negative affect to the exclusion of any positive affect. The presence of one sort of affect would predict the lack of another form of affect. This would be a state of perfectly constrained emotional response.

A second possible structure of affect would be a two dimensional representation. One interpretation has the first dimension representing a positive to negative scale, while the other dimension is an indicator of intensity or activation (see Russell 1980). Alternatively, the two dimensions could be viewed simply as positive and negative affect (Marcus 1988). In an orthogonal space, this would imply that positive and negative affective assessments of a single stimulus at any given time are unrelated. Stated another way, the assumption of orthogonal dimensions would indicate that the presence of positive affect would not require a lack of negative affect. An individual could possess high levels of either, low levels of both, or any combination in between.
Another option would be to have the two dimensional space with oblique factors. This would allow the presence of positive affect to be a predictor of the lack of negative affect. The power of this prediction would be a function of the degree of the relationship between the two dimensions.

A final possibility in specifying affective structure would be to allow the number of dimensions to increase beyond two. There must be some sort of theoretical adjustment to do this, since the number of dimensions would exceed the number of concepts currently being considered (positive and negative affect). Drawing one explanation from the literature, Morgan and Heise (1988) argue for a three dimensional representation, with evaluation, potency, and activity as the suggested factors.24 Other approaches are could certainly possible under the multidimensional solution. However, the utility gained by the application of the more complex solutions does not appear to be enough to justify their use in this research. Being more concerned with the nature of the relationship between positive and negative affect leads back to the one or two dimensional solution (assuming such a move can be supported by the data).

24 The Morgan and Heise work is based on a collection of semantic differential scales on almost 100 different emotional terms. The methods they utilize (multidimensional scaling) depend on these differential scales. The terms they review are not emotional responses, but rather just different emotions. There are no differential scales based on emotional response. One alternative would be to generate distance measures, but the NES-style questions used here are not in a format that would permit such distance measures (at least in a fashion appropriate to test the ideas discussed here). Thus, the three-dimensional model is not explicitly tested in this chapter.
Previous Reports on the Structure of Affect

While the nature of emotional reactions to presidential nomination candidates has not been explored in any real detail, there is a fair amount of research on affect in other contexts. These existing findings can serve as a guide in this research, and are briefly reviewed below. The elements of interest in each of these studies include the number of dimensions and the relationship (or lack thereof) between them.

At no point in the literature that focuses on affect do any researchers report a single dimension for the structure. Each of these studies finds at least two dimensions. Research in which affect plays a less prominent role is the only place in which one finds a model of affect that is portrayed as a single dimension (see, for example, Rahn et al. 1990).25

Results supporting the two dimensional structure are the most common finding in the literature. This conclusion has been found across a number of environments. Variation in the stimulus and in the measures has failed to alter the basic conclusion. Of all the studies, the most relevant are those dealing with the affective reactions to political figures. There are several studies of particular interest.

In a report to the National Election Board of Overseers, Don Kinder and his colleagues examined the structure of affective responses to candidates (Kinder et al. 1990).

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25 This is not unlike the study of partisanship. There have been numerous studies of partisanship, many offering some advance in our ability to understand partisanship (via a reduction in error, an alternative dimensional approach, etc.). However, when party ID is included in a model whose focus is on something other than partisanship (such as vote preference), the operationalization often falls back to the original, more simple, measure.
1979). The data utilized were drawn from a small study in New Haven, as well as the 1979 NES pilot study. They report a two dimensional solution where the positive and negative factors are correlated at rather low levels. The exact values ranged from 0.30 for Carter to 0.06 for Ford (see their Table 3.4). The degree of relationship between positive and negative affect was found to vary with the strength of partisanship. The emotional reactions of strong partisans were found to be more highly constrained than those of weak independents. Similarly, pure independents held affective views that were the least constrained of all levels of partisanship. Kinder and colleagues concluded that extremity in partisanship leads an individual to be consistent in affective reactions. Independents, less pressured by perceived partisan forces, have less incentive to reconcile conflicting emotional terms (Kinder et al., 1979, 29-31).

Following up the Kinder et al. paper, Abelson and his colleagues examined the affective elements in political person perception (Abelson et al. 1982). (It is important to note that the Abelson paper reports some of the same findings reported in the Kinder et al. paper. The additional analysis in the Abelson paper is based on the January 1980 NES data.) Abelson and company, just as in the Kinder et al. work, report a two dimensional structure of affect, with the correlations ranging between -0.54 (Kennedy) to -0.04 (Baker). They show that the declining correlation between positive and negative affect as related to decreases in partisan intensity holds for the 1980 data, just

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26 The Kinder et al. paper reports on several new measures, including the now familiar candidate trait terms, as well as a candidate behavior battery. Of all the new measures, only the affective battery was found to vary across partisan strength.
as it did for the pilot study data. Generally speaking, then, the Abelson et al. work suggests that the affective element of the evaluation of political figures in election years is similar to that found in off-years.\(^ {27} \)

Jones and Iacobucci, picking up on the Abelson et al. work, explored the affective structure of evaluation in an experimental study (1989). Using both different measures and different methods than previous studies, the authors report that they, too, find a two dimensional structure of affect. However, they report a significantly higher level of correlation across the two factors (average \( r = -0.54 \)).\(^ {28} \) Jones and his colleague also find significant individual differences in the factor structure. These differences were found to be related to various demographic and attitudinal characteristics (Jones and Iacobucci 1989, 470-73).

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\(^ {27} \) The Abelson et al. paper raises an interesting issue. They report that the affective battery was asked of all respondents, except for those claiming to "know nothing at all" about the candidate (p. 621). However, the NES study description describes a three point candidate familiarity scale, with the bottom point indicating no familiarity, the middle point represents that the respondent "felt he/she didn't know much, but the name was not unfamiliar," and the final category represents respondents who felt they knew about the candidate. Only those who fell in the latter category were asked the candidate specific questions (see ICPSR #7763, 67). Thus, the Abelson et al. comment is somewhat misleading, in that it suggests that only those answering with the totally unfamiliar reply were excluded from the analysis. The filter strategy used by the NES screened out the group in the middle. Unfortunately, these individuals did possess some level of information about the candidates. Their exclusion may well have eliminated some of the most interesting cases with regards to the role of affect in a larger evaluative model. This procedure will limit how well some of the questions in this work can be addressed.

\(^ {28} \) Jones and Iacobucci reported that their second-order factor analysis resulted in a single affective dimension. One interpretation of such results could be that the first-order factor analysis removed the measurement error, and that the two affective latencies are unidimensional.
Several studies reporting two dimensional results cast their interpretation within the idea of the circumplex model. A circumplex space can be simply thought of as a two dimensional space, with the data points located roughly on the perimeter of a circle. James Russell (1980) argues for a model based on such a circumplex space. In his work, the dimensions are said to be a pleasantness / unpleasantness factor and an arousal factor. Any emotion can be placed within the circumplex space as a product of these two dimensions. For example, "misery" falls at the unpleasantness end of the first dimension, and at the midpoint of the arousal dimension (located approximately at the 9 o'clock position). Increased arousal would be associated with such terms as "distress" (around the 10:30 spot), while lower levels of arousal would be related to emotions such as "depression." The extreme locations are associated with the pleased (near 3 o'clock), sleepy (near 6 o'clock), miserable (near 9 o'clock), and, at the top of the circle, alarmed (Russell 1980, 1164).

Marcus (1988; see also Marcus and Rahn 1990) examined the emotional reactions to the two general election candidates in 1984, and interpreted these reactions within a circumplex model. Marcus, blending the circumplex model with the previous two-dimensional findings, views his dimensions as Mastery and Threat. These labels, while critical to the ideas pursued in his paper, are essentially the basic ideas of positive and negative affect. Looking at the candidates for 1984, Marcus finds correlations

29 In this example, the arousal dimension runs from the top to bottom of the graph, while pleasantness factor runs from left to right. Maximum arousal is at the top, and maximum pleasantness is to the far right of the space.
between the factors of -0.46 for Mondale, and -0.54 for Reagan.\textsuperscript{30}

A critique of the circumplex model of emotion comes from Morgan and Heise (1988), who argue that emotion actually falls into a pair of arcs rather than a circle.\textsuperscript{31} They note that various emotions cover the full range of activation, but few fall into the neutral affective state (p. 21). The authors argue that a better representation (both substantively and statistically) is to be found in a three dimensional solution. The dimensions are evaluation, potency, and activity (Morgan and Heise 1988, 21-27, see also Heise 1979). The first dimension, evaluation, is similar to Russell's pleasantness dimension. Potency, which largely matters only for negative emotions, distinguishes between the fight or flight (or fear and anger) responses. The third dimension of their model is interpreted as one distinguishing active emotions from passive emotions.\textsuperscript{32}

\textsuperscript{30} Marcus (1988) treats his two dimensions as positive and negative affect (mastery and threat in his words). Note how this alters interpretation of the circumplex model. Movement along the dimension will be due to differing levels of arousal. A low-arousal positive emotion will be at one end of the positive dimension while a high-arousal positive emotion will be located at the other end of the scale. Using this interpretation, Marcus finds the NES stimuli to be clustered at the ends of each dimension (see his Figures 1 and 2). This is a rather drastic difference from the interpretation put forth by Russell (1980), one side effect of which is that the location of the stimuli is much more compact in the space. Interpretation also seems more difficult when using these dimensions in the circumplex situation.

\textsuperscript{31} Note that this criticism is aimed at the type of interpretation of the circumplex space used by Russell. Since Marcus essentially incorporates activation into each affective dimension, his model is not covered by the Morgan and Heise comment.

\textsuperscript{32} Again, it is worth keeping the nature of the Morgan and Heise data in mind while considering their results. They scaled semantic differential scales of different emotions (which were gathered without specific stimuli referents). The questions read "being afraid feels:," with valid answers running on a 9 point scale from good and nice versus bad and awful (evaluation); big and powerful versus little and powerless (potency); and (continued...)
The findings to date present an interesting mix of results. Some find two factors, with only weak correlations, while others find two dimensions with a stronger correlation between the factors. Still others report more than two dimensions. While some of the differences across studies can not be reconciled, some discrepancies may be resolved by addressing certain methodological issues.

One question which seems especially subject to methodological choices is that of the degree of relationship between positive and negative affect. The Kinder et al. (1979) and the Abelson (1982) papers utilize the NES style questions, which are asked as dichotomies. Using the question on anger about Carter as an example, the question simply asks "Think about Jimmy Carter. Now, has Carter -- because of the kind of person that he is, or because of something that he has done-- ever made you feel angry?" Valid replies were a simple "Yes" or "No." In their analyses, these two sets of authors factor analyzed the responses to the affective battery of questions. Both papers report low correlations between positive and negative affect. One possible reason for this is the assumption in factor analysis that the observed variables are measured at the interval level. The use of categorical variables in factor analysis may distort the results (see Kim and Mueller 1978; Rummel 1970). Evidence that these

32(...continued)
fast, lively and young versus slow, quiet and old (activation).

33 Exploratory factor analysis was used in both papers.

34 The use of dichotomies in factor analysis need not always be a bad thing. If the researcher is largely concerned with only the clustering of variables, the results obtained with variables measured below the interval level may be satisfactory.
research efforts may have suffered on this front can be found in the works of Jones and Iacobucci (1989) and Marcus (1988). In the former, the researchers allowed the measures of affect to be a 9 point scale, thereby incorporating at least ordinal level measure into the analysis.\textsuperscript{35} One result is that in their first-order factor analysis, Jones and Iacobucci report a significantly higher level of relationship between positive and negative affect. In the latter work, Marcus, forced to perform secondary data analysis on the NES questions, turned to the polychoric and polyserial correlations to improve his model. These correlations, estimated from the relationship between two ordinal level variables or between an interval level variable and an ordinal level variable, are then used as input data into the factor model.\textsuperscript{36} Marcus's confirmatory factor analysis results in higher correlations between positive and negative affect, as compared to the Kinder \textit{et al.} and Abelson \textit{et al.} papers. Thus, it appears that the early estimates of almost orthogonal factors may have been exaggerated on the basis of the method of analysis. This is not to downplay that work, but rather to point out how a potential weakness in the methods applied could lead one to faulty conclusions.

A second issue regarding the previous findings is worthy of some discussion. The usual finding has been that there are two dimensions, those being positive and

\textsuperscript{35} Multiple categories in an ordinal variable, while still not interval level, is associated with less error in the factor analysis than is associated with a simple dichotomous variable.

\textsuperscript{36} Technically, Marcus uses the special case of the polychorics between two dichotomies (called tetrachorics) as well as the polyserial correlations. His estimates were obtained using the ULS method of optimization. For a more detailed discussion of polychorics, as well as the relevant citations, see Joreskog and Sorbom 1986, 1988.
negative affect. It could be argued that this two factor solution stems from nonrandom measurement error. That is, the researcher, assuming random error (as does factor analysis), generates tainted results when working with data with nonrandom error. Green and colleagues (1990) make such an argument. If the measured variables actually are all indicators of the same latency, ignoring nonrandom measurement error will falsely lead the researcher to conclude that 2 dimensions exist. The nonrandom error discussed by Green et al. is a product of acquiescence bias in the survey itself combined with a battery of questions that alternate in their phrasing (positive vs. negative, agree vs. disagree). There are two reasons why the argument made by Green and company should not be fatal in this research. First, the questions are not positive-negative questions which merely alter which end is asked about. Rather, each emotion assessed in the NES questions represents one scale. The anchor at one end is the strong presence of that emotion. The other end is held by the complete lack of that emotion, but not the presence of the opposite emotion. For example, the measurement of afraid is not a scale that ranges from afraid to (perhaps) confident. It is, instead, a simple measure of being afraid. Presence of the emotion is marked by one end, and the lack of fear marks the other end. It is critical to note that the lack of fear does not require that there be the opposite of fear present. Second, a wide range of studies, using many different measures, have found that the basic two dimension structure holds up (see the literature discussed in the beginning of this chapter, as well as Diener and Emmons, 1985). This is true if one looks at facial expressions, self-reported affective states, or most any other form of emotion. So, while the questions used in most studies of
emotional reactions to candidates are less than perfect, the results generated by such
questions are consistent with other work in the field of emotions.\(^3\)

**Methods and Analysis Strategy**

The analysis reported here is done with a methodology that is very similar to
that used by Marcus. The respondents' answers to the affective questions were used as
input data for estimation of the polychoric correlations.\(^3\)

\(^3\) Green's concern is certainly worthy of some consideration. However, a recent piece
of analysis confronts his claim directly, and finds no support for it. See Rahn *et al.*, forthcomin.

\(^3\) The PRELIS routine that estimates polychoric correlations and the appropriate weight
matrix requires listwise deletion. For the analysis presented in this chapter, this poses
little problem. The vast majority of response patterns fell into an all-or-nothing pattern
(see table). There were very few individuals who, having passed the filter question,
were able to answer only a subset of the affective questions. There was no pattern of
one question or another being more likely to be answered than any other question.

The following table shows two numbers for each of the four candidates asked
about at three time points. The first number in each cell is the percentage of
respondents who were eligible to answer the affect questions (that is, they passed the
filter question). The second number indicates what percentage of respondents who
passed the filter question actually answered every affect question about that candidate.
For example, in the January survey, just over 86 percent of the sample passed the filter
question on knowledge of Reagan. Of that 86.2 percent, 98.7 percent answered all 7
affective response questions asked about Reagan.

<table>
<thead>
<tr>
<th>Candidate</th>
<th>January</th>
<th>April</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter</td>
<td>98.2 / 98.5</td>
<td>97.7 / 98.5</td>
<td>99.0 / 98.9</td>
</tr>
<tr>
<td>Kennedy</td>
<td>94.1 / 98.7</td>
<td>94.1 / 98.8</td>
<td>96.5 / 99.0</td>
</tr>
<tr>
<td>Reagan</td>
<td>86.2 / 98.7</td>
<td>91.7 / 98.6</td>
<td>93.9 / 98.7</td>
</tr>
<tr>
<td>Bush</td>
<td>38.0 / 96.6</td>
<td>57.9 / 97.3</td>
<td>59.1 / 97.4</td>
</tr>
</tbody>
</table>

It is clear that there is a consistently high pattern of responses. Respondents who felt
(continued...
estimate the weight matrix, which in this case is the matrix of asymptotic covariances.

The ability to calculate the proper weight matrix allowed the weighted least squares fit function to be used in the confirmatory factor analysis (weighted least squares is the recommended method to use when analyzing polychoric or polyserial correlations). Additionally, the WLS method, being asymptotically distribution free, yields a chi-squared goodness of fit measure that is correct for any distribution if the correct weight matrix is used. For other methods, this fit term is correct only under conditions of multivariate normality (Joreskog and Sorbom 1988, 21-24).

The estimation approach used here was confirmatory factor analysis rather than exploratory factor analysis. This selection of method was driven by the presence of a theoretically expected structure. While an exploratory approach will identify dimensions in the data, it will do so without respect to any existing theory. On the other hand, confirmatory factor analysis is driven by a hypothesized structure and assesses how well the data fit this structure.

---

38(...continued)
they "knew something about the candidate" (language from the filter question) had no problems assessing the emotions towards the candidates.

39 Under the routines found in LISREL, weighted least squares (WLS) and generalized least squares (GLS) are both variations of weighted least squares estimation. GLS is based on the assumption of multivariate normality, while WLS is asymptotically distribution free (see Joreskog and Sorbom 1988:23). Both WLS and GLS come from the same basic fit function. Only the weight matrix changes. The basic function is as follows.

\[ F(\theta) = (s - \sigma)W^{-1}(s - \sigma) \]

The value of W (the weight matrix) changes from GLS and WLS (as a result of changes in the manner in which the weight matrix is calculated). The inverse of the weight matrix is simply pre and post multiplied by the difference between the observed correlation (or covariance) matrix and the estimated correlation (or covariance) matrix.
hand, the confirmatory factor analysis approach demands that a proposed model be identified first, with the data then being fit to that proposal. Since a clear model is offered by Marcus and others, the confirmatory approach is the best route to follow. There is another benefit to this approach, in that the confirmatory model allows a more complex model to be estimated. Specifically, by using LISREL to estimate the model structure, I am able to address problems in the error structure that would not be possible in an exploratory analysis.

The basic model reported here was developed based on the findings reported in the literature. The hypothesized model is a two factor solution, with each of the measured variables loading on either the positive or negative factors (but not both). The relationship between positive and negative affect is treated as one of correlation, not causation. The hypothesized model has no covariances in the error structure.

An alternative model is also tested here. The single factor solution was estimated to examine the possibility that affective response actually is a simple, bipolar scale. Under this approach, the measured variables are all expected to load on a single latency. Again, no covariances in the error structure are hypothesized. It would be useful if the n-dimensional model (where n is greater than 2) could be tested here. However, the data available do not match the sort of data used in the existing three factor solutions. Nor are there any obvious alternatives with more than 3 dimension that could be tested.
Affect in the 1980 Nomination Period

Several aspects of the structure of affect should be considered here. First, what is the dimensionality of affect in the context of the 1980 nomination? Does it conform with prior studies suggesting two dimensions? How successful are the measured variables in fitting the dimensions? Second, what is the relationship between the dimensions found? Assuming that two or more dimensions are found, are they highly correlated, somewhat related, or are they essentially orthogonal? Third, does this structure vary across candidates? If so, is there a pattern? Fourth, does the structure of affect vary as the nomination progresses? Finally, are there significant differences in the structure for different elements of the population? It is these questions that are addressed now.

The hypothesized two-dimensional model of affective response estimated in this analysis is shown in Figure 1. The four negative terms (angry, afraid, uneasy, and disgusted) are expected to load on the negative factor. Three positive terms expected to load on the positive factor: hopeful, proud, and sympathetic. A non-causal link between positive and negative affect is also estimated. Note that the basic model hypothesized does not allow for any covariances on the error terms. This stems from the lack of any specific theoretical expectations about what one should expect. It may make sense to allow for similarly laden terms to have correlated errors, but the existing research in this area of is too tentative to be of much use here. The alternative model is shown in Figure 2. This is a simple one-dimensional model. Each term is expected to load on a generic emotion factor. No specific cross-loadings or covariances in the errors are hypothesized.
Figure 1: Basic 2 Dimensional Model of Affective Structure
Figure 2: One-Dimensional Model of Affect
Strategy of Estimation

When considering the estimation of these models, it is important to keep in mind that this is estimation of a cross-sectional model instead of a dynamic model. The appropriate way to think of the available data is as a series of cross-sectional surveys. The basic model was estimated for each candidate at each time point available (making a total of 17 candidate/time point combinations).

As a part of the estimation procedure, LISREL makes a series of modification indices available to the analyst. These indicators offer a way to identify what aspects of the model are causing the most problems with regard to fit. The modification indices are, unfortunately, absolutely atheoretical. In addition, Monte Carlo studies have emphatically shown that "blind" model fitting on the basis of modification indices rarely, if ever, leads the researcher to the true model if there are any significant specification errors (see MacCallum 1986). The work on modification indices has led to a number of suggestions for wise use. First, the use of the MI's should be based on theory, and second, be limited to a small number of changes. Adherence to these, combined with a significant amount of caution, should allow a use of the MI's that does not result in egregious errors. In the analysis reported below, the same error covariance

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40 Of course, the Major panel of the 1980 study is not a series of unrelated cross-sections. The selection of respondents between the Major and Minor panels does make them independent samples. The analysis in the next chapter moves to the dynamic aspect of affect. Here, it is only the basic structure that is under investigation.

41 The value of the MI is actually the estimated reduction in the value of chi-squared if the associated parameter is freed in the estimation.
was associated with the highest modification index in almost every run, and was compatible with the theory at hand (this will be discussed in greater detail shortly).\endnote{2}

The fact that the same parameter caused problems throughout the analysis is somewhat reassuring, in that it suggests that the structure shows some level of consistency.

The two-dimensional results based on all respondents are shown in Tables 1 and 2. The former shows the loadings for each of the terms, as well as the measures of fit. Also shown in this table are any error covariances that were freed. The latter table shows the estimated relationship between the positive and negative factors.

Turning first to the loadings, perhaps the most noteworthy finding is the overwhelming similarity of the models across time and candidates. There is a rather clear pattern of some terms having higher loadings than other terms (such as "angry" and "disgusted" generally having the highest loadings on the negative factor, while "hopeful" tended to have the highest loadings on the positive factor). There is even a consistent pattern in the magnitudes of the covariance in the error terms (theta in Table 1). The other general trend to notice is the high measures of fit for each model. The

\begin{footnote}{2}The modification index for the covariance of the errors for "afraid" and "uneasy" was by far the largest of all modification indices. Following the most conservative strategy, only one parameter was freed at a time. When the offending theta delta was freed, the MI's for the remaining fixed variables dropped drastically. An a priori decision was made not to address parameters with MI's of less than approximately 10. (Recall that the MI reflects a change in the chi-squared estimate, and as such should be interpreted in the context of the magnitude of chi-squared estimate of fit. A MI of 10, when chi-squared is only 15 would be very significant. In this analysis, the chi-squared value was always significantly higher than any MI.) Fortunately, this rule was rarely ever needed. When one parameter was freed, the remaining MI's dropped to a value of 2 or below.\end{footnote}
Goodness-of-fit index (GFI) and the Adjusted Goodness-of-fit index (AGFI) are both quite high. The rho values are also high. The probability associated with the chi-squared value is nearly always in excess of 0.5 (recall that in fitting the LISREL model, one wishes to find a chi-squared value that has a non-significant probability). Those cases where the probability is more marginal each have some unusual fit problem.

In terms of the individual candidates, several items are worthy of more detailed discussion. First, a word about the two loadings that have values greater than 1.0. The method utilized here (weighted least squares, based on the estimated polychoric correlations) may produce correlations that are slightly greater than unity. In each case reported here, the degree to which a loading exceeds 1.0 is less than 0.04, a trivial amount. A second result of note is that the April (C1) model for Carter contains an extra path from a measured term to a latency. Specifically, the path from "proud" to the negative factor was freed. The decision to free this parameter was based on the political situation of the time, as well as the large modification index for this path. Carter’s political fate in 1980 was being battered about by international events. The hostage-taking in Tehran in 1979 had started the decline. By the middle phase of the nomination, a rescue mission was mounted. While the mission met a tragic end, there

---

43 There is a tendency for models to result in unrealistically high GFI's and AGFI's. It is rather easy to obtain a GFI of 0.8. However, the results here are clear indicators of substantial fit. Alternative measures of fit have been developed to alleviate the problems associated with the GFI and AGFI. The strategy often recommended is one based on a multitude of fit indicators. Each summary fit measure has its own problems, but consideration of a set of indicators reduces the chance of false conclusions. For a discussion of this area of work, see Joreskog and Sorbom 1988.
Table 1: Two-Dimensional Model: Loadings and Fit for All Respondents

<table>
<thead>
<tr>
<th>Cand./Wave</th>
<th>Angry</th>
<th>Afraid</th>
<th>Uneasy</th>
<th>Disgusted</th>
<th>Hopeful</th>
<th>Proud</th>
<th>Sympathetic</th>
<th>Theta Delta</th>
<th>GFI</th>
<th>AGFI</th>
<th>Prob. X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson-C1</td>
<td>.998</td>
<td>.810</td>
<td>.758</td>
<td>.891</td>
<td>1.032</td>
<td>.787</td>
<td>.672</td>
<td>.337</td>
<td>.993</td>
<td>.987</td>
<td>.99</td>
</tr>
<tr>
<td>Anderson-P2</td>
<td>.917</td>
<td>.800</td>
<td>.701</td>
<td>.870</td>
<td>.871</td>
<td>.827</td>
<td>.684</td>
<td>.337</td>
<td>.999</td>
<td>.998</td>
<td>.99</td>
</tr>
<tr>
<td>Baker-P1</td>
<td>.926</td>
<td>.841</td>
<td>.878</td>
<td>.827</td>
<td>.869</td>
<td>.895</td>
<td>.629</td>
<td>.995</td>
<td>.995</td>
<td>.990</td>
<td>.62</td>
</tr>
<tr>
<td>Connally-P1</td>
<td>.879</td>
<td>.756</td>
<td>.757</td>
<td>.932</td>
<td>.933</td>
<td>.900</td>
<td>.678</td>
<td>.294</td>
<td>.998</td>
<td>.995</td>
<td>.39</td>
</tr>
<tr>
<td>Bush-P1</td>
<td>.955</td>
<td>.703</td>
<td>.631</td>
<td>.922</td>
<td>.929</td>
<td>.877</td>
<td>.737</td>
<td>.347</td>
<td>.995</td>
<td>.990</td>
<td>.62</td>
</tr>
<tr>
<td>Bush-C1</td>
<td>.906</td>
<td>.620</td>
<td>.592</td>
<td>.879</td>
<td>1.014</td>
<td>.743</td>
<td>.672</td>
<td>.463</td>
<td>.997</td>
<td>.993</td>
<td>.72</td>
</tr>
<tr>
<td>Bush-P2</td>
<td>.877</td>
<td>.820</td>
<td>.755</td>
<td>.931</td>
<td>.968</td>
<td>.767</td>
<td>.588</td>
<td>.262</td>
<td>.998</td>
<td>.996</td>
<td>.95</td>
</tr>
<tr>
<td>Kennedy-P1</td>
<td>.868</td>
<td>.755</td>
<td>.739</td>
<td>.904</td>
<td>.903</td>
<td>.912</td>
<td>.663</td>
<td>.254</td>
<td>.998</td>
<td>.996</td>
<td>.33</td>
</tr>
<tr>
<td>Kennedy-C1</td>
<td>.863</td>
<td>.700</td>
<td>.731</td>
<td>.920</td>
<td>.942</td>
<td>.921</td>
<td>.673</td>
<td>.230</td>
<td>.999</td>
<td>.998</td>
<td>.72</td>
</tr>
<tr>
<td>Kennedy-P2</td>
<td>.854</td>
<td>.758</td>
<td>.787</td>
<td>.946</td>
<td>.966</td>
<td>.874</td>
<td>.699</td>
<td>.217</td>
<td>.998</td>
<td>.997</td>
<td>.52</td>
</tr>
<tr>
<td>Carter-P1</td>
<td>.798</td>
<td>.466</td>
<td>.551</td>
<td>.876</td>
<td>.826</td>
<td>.760</td>
<td>.531</td>
<td>.261</td>
<td>.998</td>
<td>.995</td>
<td>.59</td>
</tr>
<tr>
<td>Carter-C1</td>
<td>.770</td>
<td>.632</td>
<td>.550</td>
<td>.879</td>
<td>.885</td>
<td>.670</td>
<td>.663</td>
<td>.269</td>
<td>.996</td>
<td>.992</td>
<td>.12</td>
</tr>
<tr>
<td>Carter-P2</td>
<td>.805</td>
<td>.566</td>
<td>.547</td>
<td>.920</td>
<td>.872</td>
<td>.821</td>
<td>.586</td>
<td>.302</td>
<td>.997</td>
<td>.995</td>
<td>.61</td>
</tr>
<tr>
<td>Reagan-P1</td>
<td>.873</td>
<td>.671</td>
<td>.708</td>
<td>.933</td>
<td>.920</td>
<td>.837</td>
<td>.600</td>
<td>.397</td>
<td>.997</td>
<td>.994</td>
<td>.12</td>
</tr>
<tr>
<td>Reagan-C1</td>
<td>.848</td>
<td>.736</td>
<td>.767</td>
<td>.884</td>
<td>.834</td>
<td>.863</td>
<td>.610</td>
<td>.264</td>
<td>.997</td>
<td>.994</td>
<td>.19</td>
</tr>
<tr>
<td>Reagan-P2</td>
<td>.889</td>
<td>.715</td>
<td>.773</td>
<td>.906</td>
<td>.981</td>
<td>.781</td>
<td>.575</td>
<td>.306</td>
<td>.998</td>
<td>.996</td>
<td>.51</td>
</tr>
</tbody>
</table>

a The notations following the candidate's name indicates the survey, where P1 is the January/February wave of the Major panel, C1 is the April wave of the Minor panel, and P2 is the June wave of the Major panel. A figure in parentheses underneath a full line indicates that the term loaded on the other factor as well as on the first factor. The value in the theta delta column is the covariance of the error terms for "afraid" and "uneasy." The fit measures are the Goodness of Fit measure, the Adjusted Goodness of Fit measure, and the probability associated with the chi-squared test.
Table 2: Correlation between Positive and Negative Affect, All Respondents.*

<table>
<thead>
<tr>
<th>Candidate</th>
<th>January</th>
<th>April</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson</td>
<td>- -</td>
<td>-.391</td>
<td>-.361</td>
</tr>
<tr>
<td>Baker</td>
<td>-.087</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>Connally</td>
<td>-.390</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>Bush</td>
<td>-.388</td>
<td>-.109</td>
<td>-.111</td>
</tr>
<tr>
<td>Kennedy</td>
<td>-.620</td>
<td>-.657</td>
<td>-.536</td>
</tr>
<tr>
<td>Carter</td>
<td>-.378</td>
<td>-.408</td>
<td>-.390</td>
</tr>
<tr>
<td>Reagan</td>
<td>-.491</td>
<td>-.379</td>
<td>-.477</td>
</tr>
</tbody>
</table>

* The reported correlations are drawn from the phi matrix in the confirmatory factor analysis reported in Table 4.1.
was some domestic reaction to the attempt. This effect, perhaps some variation of the "rally around the flag" effect noted in the presidential approval literature, is incorporated in this model by freeing the path between "proud" and negative affect. The presence of a self-reported affective state of pride is associated with a reduced level of negative affect.

Several other details from Table 1 should be mentioned. There were two models in which the error covariance between "afraid" and "uneasy" terms was not freed. To some degree, this is a product of the rule of thumb used to guide modification. For instance, the Anderson model in the April wave has no free elements in the off-diagonal of the theta-delta matrix. The modification index for the covariance of the errors between "afraid" and "uneasy" was the largest MI in the system (as was true in nearly every model estimated). However, it fell somewhat short of the preset threshold. Thus, it was not freed. The result is a somewhat poorer fit. Similarly, the Baker model fit the original specification without need for modification. Finally, there is somewhat of a trend in the individual loadings for certain candidates, albeit a weak one. The clearest example is that of Ted Kennedy. Of those terms loading on the positive factor, "proud" loads relatively higher for Kennedy than for other candidates.

The next component of affect to be examined regards the strength of the measured variables to represent the latencies. This may be assessed with the squared multiple correlations and the coefficient of determination. The former measure how well the observed variables serve as instruments for the latent terms individually, while the latter is a joint measure of all the observed variables. Both measures range from
zero to one, with higher values indicating better fit. Within this analysis, the squared multiple correlations are usually high, most having values of 0.7 or higher. Two terms ("sympathy" and "uneasy") do not fit as well as others. The SMC for these terms was as low as 0.3. The coefficient of determination for every equation was rather high, often reaching values better than 0.9. The observed variables, then, appear to serve as a satisfactory set of indicators for the latent terms.

A major question (if not the major question) about the structure of affect is that of the relationship between positive and negative affect. The correlations found in this analysis suggest that this relationship is far from a constant one (see Table 2). The lowest correlation (assessed with the appropriate value from the phi matrix) between the terms was -0.087 (Baker), while the highest was -0.657 (Kennedy). In each case, the correlation between the two terms is negative. As an individual's positive feelings increase, the negative feelings grow less likely. This relationship, however, is less than absolute.

The Alternative Model

As an alternative to the hypothesized two-dimensional model, a simple one-dimension solution was considered. The results for this model are shown in Table 3.

---

44 Marcus (1988) noted the poor fit of the sympathy term.

45 Note that this analysis was not done for every candidate at every time point. A subsample of the candidates is sufficient for the purposes at hand.
### Table 3: Single-Dimension Model: All Respondents in January

**Loadings:**

<table>
<thead>
<tr>
<th>Candidate</th>
<th>Angry</th>
<th>Afraid</th>
<th>Uneasy</th>
<th>Disgusted</th>
<th>Hopeful</th>
<th>Proud</th>
<th>Sympathy</th>
<th>GFI</th>
<th>AGFI</th>
<th>Prob X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter</td>
<td>-0.758</td>
<td>-0.439</td>
<td>-0.495</td>
<td>-0.846</td>
<td>0.281</td>
<td>0.281</td>
<td>0.243</td>
<td>0.997</td>
<td>0.993</td>
<td>0.527</td>
</tr>
<tr>
<td>Kennedy</td>
<td>-0.861</td>
<td>-0.757</td>
<td>-0.724</td>
<td>-0.901</td>
<td>0.594</td>
<td>0.587</td>
<td>0.396</td>
<td>0.998</td>
<td>0.994</td>
<td>0.178</td>
</tr>
<tr>
<td>Reagan</td>
<td>-0.824</td>
<td>-0.661</td>
<td>-0.698</td>
<td>-0.950</td>
<td>0.481</td>
<td>0.457</td>
<td>0.307</td>
<td>0.996</td>
<td>0.988</td>
<td>0.012</td>
</tr>
<tr>
<td>Bush</td>
<td>-0.865</td>
<td>-0.522</td>
<td>-0.266</td>
<td>-0.798</td>
<td>0.812</td>
<td>0.871</td>
<td>0.690</td>
<td>0.968</td>
<td>0.925</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Error Covariances:**

<table>
<thead>
<tr>
<th>Candidate</th>
<th>Angry-Uneasy</th>
<th>Afraid-Uneasy</th>
<th>Hopeful-Proud</th>
<th>Hopeful-Sympathy</th>
<th>Proud-Sympathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter</td>
<td>0.273</td>
<td>0.523</td>
<td>0.303</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kennedy</td>
<td>0.255</td>
<td>0.452</td>
<td>0.390</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reagan</td>
<td>0.404</td>
<td>0.552</td>
<td>0.371</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bush</td>
<td>0.469</td>
<td>0.625</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Squared Multiple Correlations & Coefficient of Determination:**

<table>
<thead>
<tr>
<th>Candidate</th>
<th>Angry</th>
<th>Afraid</th>
<th>Uneasy</th>
<th>Disgusted</th>
<th>Hope</th>
<th>Proud</th>
<th>Sympathy</th>
<th>Coef. Det.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter</td>
<td>0.574</td>
<td>0.193</td>
<td>0.246</td>
<td>0.716</td>
<td>0.079</td>
<td>0.079</td>
<td>0.059</td>
<td>0.816</td>
</tr>
<tr>
<td>Kennedy</td>
<td>0.741</td>
<td>0.574</td>
<td>0.525</td>
<td>0.811</td>
<td>0.353</td>
<td>0.344</td>
<td>0.157</td>
<td>0.904</td>
</tr>
<tr>
<td>Reagan</td>
<td>0.678</td>
<td>0.437</td>
<td>0.487</td>
<td>0.903</td>
<td>0.232</td>
<td>0.209</td>
<td>0.094</td>
<td>0.927</td>
</tr>
<tr>
<td>Bush</td>
<td>0.748</td>
<td>0.272</td>
<td>0.071</td>
<td>0.636</td>
<td>0.659</td>
<td>0.758</td>
<td>0.476</td>
<td></td>
</tr>
</tbody>
</table>

---

**Notes:***

- **Loadings:** The entries are loadings from the confirmatory factor analysis. There are no cross loadings. GFI, AGFI, and the probability associated with the chi-squared test are all measures of overall fit, and are discussed in the text.

- **Error Covariances:** The entries are estimated error covariances in the one-dimensional model. A blank cell indicates a non-estimated parameter.

- **Squared Multiple Correlations & Coefficient of Determination:** Entries in this panel are the Squared multiple correlations associated with each measured variable, as well the coefficient of determination for the entire measurement model.
The top panel of the table shows the loadings for each of the observed variables on the single emotion factor. One important point to note is the fact that the positive and negative terms generally do not have similar loadings. For three of the candidates, the negative terms dominate. The exception, Bush, has something closer to equality between the two sets of affective measures. This difference in loadings is in stark contrast to the two factor solution, in which the positive terms loaded on the positive factor at approximately the same magnitude as the negative terms loaded on the negative factor. The difference here is one indicator that the single factor solution may be less than optimal. Also in the first panel of the table are the general measures of fit. The Goodness-of-fit Index and the Adjusted Goodness-of-fit Index are satisfactory. The probability associated with the chi-squared test is insignificant for two of the four models (recall again that an insignificant probability is actually an indicator of a model that it is significantly different from chance).

The second panel of Table 3 shows the error covariances that were estimated as a part of the single factor solution. It needs to be stressed that these paths were freed on an absolutely atheoretical basis. For each of the major candidates, the same error covariance that was freed in the two dimensional model (between afraid and uneasy) needed to be freed here. Several additional covariances were also estimated. For the

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46 The modification indices in the single dimension model were freed on the basis of the magnitude of the modification index only. There was no a priori expectation about any given structure in the error terms. Paths were freed until there were no large modification indices left. The original model, with no freed error covariances, was associated with a very poor fit in every case.
three candidates who have higher loadings on the negative terms, the error covariances between all the positive terms needed to be freed. For Bush, the extra freed covariance was on the negative terms, with no error covariances freed among the positive indicators. The magnitude of the covariances is generally higher in this solution than it was in the two-dimensional solution.

Finally, the third panel of the table presents an assessment of the relationship between the observed indicators and the latent term. The first seven columns of this panel are the squared multiple correlations for each measured item. The SMC reflects the ability each specific observed variable to represent the latency. The values in this table represent a substantial drop from those found in the two dimensional solution (which are not presented in detail). This indicates that, under a single dimension model, the ability of any given measured affective response to represent the whole latency is less than if the measured variables are linked to similarly valenced dimensions. The last column in the panel contains the coefficient of determination. This value is an indicator of the ability of the entire set of measured variables to represent the latency. The values of this indicator for the single dimension solution are satisfactory.

What sort of conclusion do the single factor results support? It is possible for the seven measured items to form a single dimension of reasonable fit (a satisfactory coefficient of determination supports such a move). However, several pieces of evidence point to the single factor model being less satisfactory than the two factor model. First, the unequal degree of loadings in the solution suggests that the single factor model may be dominated by one form of affect or another. Retaining the two
factors permits the factors to be estimated in a stronger fashion. The question on the differing importance of positive versus negative affect can be addressed at the level of factor rather than at the level of the measured variable. Second, the noise in the structure of the error covariances indicates that the single factor solution does not represent as clear a model as does the two dimensional model.

The single dimension solution, while adequate, is less desirable than the two-dimensional model. The two factor solution is better suited to represent affect in a theoretical sense, and the statistical evidence supports this idea. It is clearly possible to treat affect as a single factor. However, such a move would represent a loss of information and an unnecessary clouding of the question of structure.

**Patterns in the Two-Dimensional Solution**

Given the range of correlations found in the two factor model, the next question is whether there is some meaning to the pattern of between the candidates and over time. As can be seen in Table 2, there is significant intercandidate variance. Carter, as sitting president, has what can be classified as moderately correlated factors. His major challenger in the campaign, Kennedy, has rather highly correlated positive and negative terms. In fact, Kennedy's affect terms are as strongly related as the trait terms reported in the Abelson et al paper (1982).\(^7\) The eventual Republican nominee, Reagan, has moderate correlations. Bush, the most visible threat to Reagan, is the subject of less

\(^7\) Recall the Abelson et al. finding that the candidate trait terms were much more highly correlated than were the affect terms.
related factors. The more minor candidates tend to have weak to moderate links between the two components of affect. For Anderson and Connally, positive and negative affect are correlated at approximately the same level of Carter. Baker, a long shot Republican, has a correlation indistinguishable from zero at the one time point respondents were asked about him.

Looking at the correlations for each candidate over time, there is a distinct sense of sameness over time with respect to these cross-sectional comparisons. Of the four candidates asked about at both time points, three show basic stability. The one candidate that does show a difference in the cross-sectional analysis is Bush. The correlation between positive and negative affect drops notably for Bush after the first wave of the major panel. Unfortunately, the remaining candidates (generally low profile) are not asked about at multiple time points.

A reminder about the study design is appropriate at this point. The three time points discussed here are actually part of two different samples. The January and June surveys are two waves of a larger panel study. The April survey, however, is an independent cross-section. The respondents in the June survey were all interviewed in the January wave. Of course, there is some movement possible between waves. An individual could have passed the filter question in wave 1 but not in wave 2, or vice versa. First wave respondents could be nonrespondents in the second wave. Obviously, the last option is that an individual passed the filter question in both surveys. The degree to which these options are mixed determines how much of the June wave is repetitive with the January wave. Table 4 shows the shift between waves for each
Table 4: Comparison of Waves 1 and 2

<table>
<thead>
<tr>
<th>Included on</th>
<th>Carter</th>
<th>Reagan</th>
<th>Kennedy</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waves 1 and 2(^a)</td>
<td>819</td>
<td>714</td>
<td>778</td>
<td>279</td>
</tr>
<tr>
<td>Wave 1 only(^b)</td>
<td>4</td>
<td>16</td>
<td>16</td>
<td>51</td>
</tr>
<tr>
<td>Wave 2 only(^c)</td>
<td>7</td>
<td>69</td>
<td>28</td>
<td>214</td>
</tr>
<tr>
<td>Neither Wave(^d)</td>
<td>4</td>
<td>35</td>
<td>13</td>
<td>290</td>
</tr>
</tbody>
</table>

\(^a\) Includes respondents claiming to "know something" about the candidate at both time points.

\(^b\) Includes only those respondents claiming to "know something" in January, but claiming some lower level of recognition in the June survey. Not included are the 165 respondents who were not reinterviewed in June.

\(^c\) Includes only those respondents who fell into one of the lower categories in January, while claiming to "know something" about the candidate in June.

\(^d\) Includes only those respondents who gave valid answers at both time points, but failed to cross the threshold needed in order to be asked the candidate specific questions.
As is clear, the dominant pattern is for there to be a solid core, passing the filter question at both time points. However, as is also clear, there is movement across categories, especially for George Bush. Any comment on the larger across-time results should be considered with this sampling issue in mind.

Looking back at the four candidates with three time points in Table 2, a more interesting comparison can be made between January and June results. Carter and Reagan show a strong stability across the two time points (at least in this cross-sectional analysis). Kennedy, starting with the highest correlation between positive and negative affect, drops somewhat. He still retains the highest correlation, however. The candidate showing the most movement over the time period is Bush. The correlation in the January wave for Bush is -0.38. This drops to -0.11 in the June survey. This is certainly due, at least in part, to the addition of the large pool of respondents who recognized Bush only in the second wave.

The final major aspect of affective structure to discuss involves comparisons across different elements of the population. Three different divisions are considered here. First, the sample was broken by partisan orientation. A second division was by education level. Third, the respondents were broken down by partisan intensity. The structure of affect was examined for each of these groups, with the results presented below.

Within the nomination context, the candidates seek support from within their own party and, perhaps, independents. The population of interest in presidential
nominations are those eligible to vote. In most cases, this excludes members of the other party, but may sometimes allow independents. Thus, the intraparty nature of the nomination process makes the structure of affect among possible supporters an interesting question. In order to examine this, the confirmatory factor analysis was performed for each candidate, using only those respondents who thought of themselves as members of the candidate's party or thought of themselves as independents. For example, the analysis for Reagan is based on Republican identifiers and independents, while the Kennedy analysis drew on Democrats and independents. Note that independents were included in the analysis of both Democratic and Republican candidates. This was done since independents can sometimes participate in the primaries of either party. Additionally, this group represents a potentially significant swing factor in the population.

The basic structure for this subset was very much like the entire population (see Table 5). In almost every case, the results fit the clean two factor model, most with the covariance of the error terms for "afraid" and "uneasy" freed in the estimation. The loadings and the various measures of fit for the partisan subgroups look very similar to the entire sample (compare Tables 1 and 5). Turning to Table 6, it is clear that the correlation between the two affective dimensions looks very much like those reported

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48 During almost any presidential campaign, one may well hear the campaigns and/or the party discussing the various candidates' electability come the general election. While electability may well be an important issue, the first hurdle for any potential president is to secure the nomination of their party (or perhaps, in the Anderson model, declare themselves an independent candidate if their nomination bid fails).
Table 5: Loadings and Fit for Same Party Identifiers and Independents

<table>
<thead>
<tr>
<th>Cand/Wave</th>
<th>Angry</th>
<th>Afraid</th>
<th>Uneasy</th>
<th>Disgusted</th>
<th>Positive</th>
<th>Hopeful</th>
<th>Proud</th>
<th>Sympathetic</th>
<th>Theta Delta</th>
<th>GFI</th>
<th>AGFI</th>
<th>Prob X²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson -Cl</td>
<td>1.008</td>
<td>.759</td>
<td>.719</td>
<td>.861</td>
<td>1.058</td>
<td>.746</td>
<td>.674</td>
<td>.360</td>
<td>.989</td>
<td>998</td>
<td>996</td>
<td>.97</td>
</tr>
<tr>
<td>Anderson-P2</td>
<td>.908</td>
<td>.839</td>
<td>.675</td>
<td>.879</td>
<td>.880</td>
<td>.785</td>
<td>.676</td>
<td>.360</td>
<td>.989</td>
<td>998</td>
<td>996</td>
<td>.97</td>
</tr>
<tr>
<td>Baker-P1</td>
<td>1.002</td>
<td>.877</td>
<td>.851</td>
<td>.747</td>
<td>.877</td>
<td>.913</td>
<td>.605</td>
<td>.991</td>
<td>991</td>
<td>984</td>
<td>50</td>
<td>.50</td>
</tr>
<tr>
<td>Connally-P1</td>
<td>.901</td>
<td>.800</td>
<td>.780</td>
<td>.843</td>
<td>1.055</td>
<td>.815</td>
<td>.647</td>
<td>.236</td>
<td>.995</td>
<td>995</td>
<td>990</td>
<td>.26</td>
</tr>
<tr>
<td>Bush-P1</td>
<td>.992</td>
<td>.763</td>
<td>.549</td>
<td>.890</td>
<td>1.025</td>
<td>.802</td>
<td>.693</td>
<td>.988</td>
<td>988</td>
<td>977</td>
<td>39</td>
<td>.39</td>
</tr>
<tr>
<td>Bush-C1</td>
<td>.957</td>
<td>.594</td>
<td>.489</td>
<td>.857</td>
<td>.946</td>
<td>.754</td>
<td>.714</td>
<td>.514</td>
<td>.997</td>
<td>997</td>
<td>993</td>
<td>.96</td>
</tr>
<tr>
<td>Bush-P2</td>
<td>.904</td>
<td>.906</td>
<td>.892</td>
<td>.897</td>
<td>1.065</td>
<td>.783</td>
<td>.552</td>
<td>.995</td>
<td>.995</td>
<td>991</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>Kennedy-P1</td>
<td>.864</td>
<td>.770</td>
<td>.748</td>
<td>.913</td>
<td>.815</td>
<td>.900</td>
<td>.661</td>
<td>.242</td>
<td>.997</td>
<td>997</td>
<td>994</td>
<td>.09</td>
</tr>
<tr>
<td>Kennedy-C1</td>
<td>.872</td>
<td>.692</td>
<td>.708</td>
<td>.895</td>
<td>.949</td>
<td>.900</td>
<td>.691</td>
<td>.348</td>
<td>.997</td>
<td>997</td>
<td>995</td>
<td>.31</td>
</tr>
<tr>
<td>Kennedy-P2</td>
<td>.831</td>
<td>.766</td>
<td>.774</td>
<td>.955</td>
<td>.992</td>
<td>.869</td>
<td>.699</td>
<td>.261</td>
<td>.997</td>
<td>997</td>
<td>995</td>
<td>.32</td>
</tr>
<tr>
<td>Carter-P1</td>
<td>.817</td>
<td>.444</td>
<td>.575</td>
<td>.886</td>
<td>.802</td>
<td>.801</td>
<td>.539</td>
<td>.270</td>
<td>.998</td>
<td>995</td>
<td>995</td>
<td>.84</td>
</tr>
<tr>
<td>Carter-C1</td>
<td>.806</td>
<td>.652</td>
<td>.532</td>
<td>.891</td>
<td>.883</td>
<td>.795</td>
<td>.618</td>
<td>.213</td>
<td>.994</td>
<td>994</td>
<td>989</td>
<td>.08</td>
</tr>
<tr>
<td>Carter-P2</td>
<td>.868</td>
<td>.537</td>
<td>.558</td>
<td>.911</td>
<td>.839</td>
<td>.794</td>
<td>.621</td>
<td>.291</td>
<td>.998</td>
<td>996</td>
<td>.91</td>
<td></td>
</tr>
<tr>
<td>Reagan-P1</td>
<td>.890</td>
<td>.623</td>
<td>.691</td>
<td>.918</td>
<td>.898</td>
<td>.841</td>
<td>.560</td>
<td>.434</td>
<td>.996</td>
<td>992</td>
<td>.35</td>
<td></td>
</tr>
<tr>
<td>Reagan-C1</td>
<td>.849</td>
<td>.725</td>
<td>.733</td>
<td>.885</td>
<td>.855</td>
<td>.826</td>
<td>.616</td>
<td>.272</td>
<td>.996</td>
<td>993</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Reagan-P2</td>
<td>.916</td>
<td>.757</td>
<td>.717</td>
<td>.873</td>
<td>1.024</td>
<td>.752</td>
<td>.588</td>
<td>.320</td>
<td>.997</td>
<td>994</td>
<td>.74</td>
<td></td>
</tr>
</tbody>
</table>

a The notations following the candidate's name indicates the survey, where P1 is the January/February wave of the Major panel, C1 is the April wave of the Minor panel, and P2 is the June wave of the Major panel. A figure in parentheses underneath a full line indicates that the term loaded on the other factor as well as on the first factor. The value in the theta delta column is the covariance of the error terms for "afraid" and "uneasy." The fit measures are the Goodness of Fit measure, the Adjusted Goodness of Fit measure, and the probability associated with the chi-squared test.
for the entire sample. There is no consistent pattern of increased or decreased correlations (comparing Tables 2 and 6). The exception to this is Kennedy. At each of the three time points, the correlations between positive and negative affect decrease when Republicans are excluded. This indicates a pronounced partisan effect for Kennedy. The long-term, high-profile reputation of the Kennedys certainly makes such evaluations likely. No other candidate shows that pattern. The conclusion at this point then, is that the affective structure for the population of possible supporters looks very much like that of the entire population.

The second way of subdividing the population is on the basis of education. The premise guiding this portion of the analysis is that greater education is associated with greater cognitive skills and greater information about politics. Given that, one could

\[\text{49} \quad \text{Indeed, the Kennedy clan has evolved into the perennial target of Republican attacks. In The Quayle Quarterly (a publication "devoted solely to our [then] Vice President" with a bit of a negative bent), several readers wrote back to the journal to defend Quayle. An impressive portion of those defending the Vice President did so by bringing in the Kennedy name. One colorful example: "How can you criticize Quayle? Have you forgotten the Kennedy tomcats - like father like sons. Ted got away with murder as a drunken swine and now sits in the Senate. John had the cats coming to the White House while Jackie was flying across the ocean. And then there was Bobby and Marilyn" (The Quayle Quarterly, V.3,N.2:3.). While the facts in such a reply may certainly be debated, the animosity towards the entire Kennedy family can not be ignored.}\]

\[\text{50} \quad \text{An alternative strategy for this analysis would be to estimate the model for each candidate twice. The first pass would be based on Republicans and independents, while the second pass would use Democrats and independents. This approach would probably be the most likely to produce partisan differences. However, the strategy followed in this work is based on the nature of the campaign. That is, the question of interest is not how one set of partisans differs in emotional structure from another, but rather how the primary population (a candidate's own partisans and independents) differs from the general election population (all respondents).}\]
Table 6: Correlation between Positive and Negative Affect, Same Party Identifiers and Independents.*

<table>
<thead>
<tr>
<th>Candidate</th>
<th>January</th>
<th>April</th>
<th>June</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson</td>
<td>- -</td>
<td>-.355</td>
<td>-.463</td>
</tr>
<tr>
<td>Baker</td>
<td>-.018</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>Conally</td>
<td>-.413</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>Bush</td>
<td>-.329</td>
<td>-.038</td>
<td>-.141</td>
</tr>
<tr>
<td>Kennedy</td>
<td>-.588</td>
<td>-.617</td>
<td>-.503</td>
</tr>
<tr>
<td>Carter</td>
<td>-.341</td>
<td>-.479</td>
<td>-.362</td>
</tr>
<tr>
<td>Reagan</td>
<td>-.497</td>
<td>-.350</td>
<td>-.415</td>
</tr>
</tbody>
</table>

* The reported correlations are drawn from the phi matrix in the confirmatory factor analysis reported in Table 4.4.
expect that individuals possessing higher levels of education are able to recognize (and reduce) the dissonance associated with the simultaneous feelings of positive and negative affect about an given candidate. Similarly, greater involvement and information may lead to more constrained emotional terms. For the purposes of this research, individuals who had attended any college were considered to be the high education bracket. Those with a high school degree or less were placed in the low education category. The analysis was performed only for a subset of the candidates. The minor candidates were excluded, as was Bush. There were simply not enough respondents in the first wave to do any analysis for Bush. Also, the June wave was not analyzed due to the aggregate stability of the January-June waves suggested in the previous results.

Several interesting trends can be found when looking at the factor structure for different education levels. Turning to Table 7, it can be seen that for those with high education levels, there was a tendency to load more highly on "hopeful" and "sympathetic" for all candidates. The low education respondents tended to load more on "angry," "disgusted," and "proud." Cross-loadings were estimated for high education Kennedy evaluations ("afraid" on the positive factor) and low education Carter evaluations ("proud" on the negative factor). The extra link on Kennedy defies easy explanation. The extra link in the Carter model suggests that respondents with lower education levels were likely reacting to the international morass that the President found himself in during his re-election bid. The fit for the models was consistently good across time and candidates. Table 8 shows the correlations between the two
Table 7: Loadings and Fit for Structure of Affect, by Education*

<table>
<thead>
<tr>
<th>Cand/Wave</th>
<th>Angry</th>
<th>Afraid</th>
<th>Uneasy</th>
<th>Disgusted</th>
<th>Hopeful</th>
<th>Proud</th>
<th>Sympathetic</th>
<th>Theta Delta</th>
<th>GFI</th>
<th>AGFI</th>
<th>Prob. $X^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennedy- PI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Educ.</td>
<td>.838</td>
<td>.429</td>
<td>.707</td>
<td>.909</td>
<td>.928</td>
<td>.888</td>
<td>.727</td>
<td>.403</td>
<td>.994</td>
<td>.998</td>
<td>.24</td>
</tr>
<tr>
<td>Low Educ.</td>
<td>.869</td>
<td>.809</td>
<td>.741</td>
<td>.921</td>
<td>.869</td>
<td>.937</td>
<td>.653</td>
<td>.201</td>
<td>.991</td>
<td>.988</td>
<td>.93</td>
</tr>
<tr>
<td>Kennedy- C1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Educ.</td>
<td>.873</td>
<td>.784</td>
<td>.760</td>
<td>.820</td>
<td>.978</td>
<td>.900</td>
<td>.750</td>
<td>.995</td>
<td>.995</td>
<td>.991</td>
<td>.51</td>
</tr>
<tr>
<td>Low Educ.</td>
<td>.873</td>
<td>.654</td>
<td>.714</td>
<td>.941</td>
<td>.920</td>
<td>.936</td>
<td>.654</td>
<td>.997</td>
<td>.997</td>
<td>.994</td>
<td>.25</td>
</tr>
<tr>
<td>Carter- PI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Educ.</td>
<td>.748</td>
<td>.433</td>
<td>.352</td>
<td>.837</td>
<td>.856</td>
<td>.754</td>
<td>.624</td>
<td>.331</td>
<td>.994</td>
<td>.989</td>
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<tr>
<td>Low Educ.</td>
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<td>.476</td>
<td>.629</td>
<td>.886</td>
<td>.822</td>
<td>.768</td>
<td>.493</td>
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<td></td>
<td></td>
<td></td>
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</tr>
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<td>High Educ.</td>
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<td>.501</td>
<td>.803</td>
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<td>.700</td>
<td>.339</td>
<td>.990</td>
<td>.980</td>
<td>.35</td>
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<td>.609</td>
<td>.866</td>
<td>.833</td>
<td>.709</td>
<td>.655</td>
<td>.994</td>
<td>.987</td>
<td>.987</td>
<td>.04</td>
</tr>
<tr>
<td>Reagan- PI</td>
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<td></td>
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</tr>
<tr>
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<td>.658</td>
<td>.955</td>
<td>.940</td>
<td>.849</td>
<td>.609</td>
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<td>.994</td>
<td>.70</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>High Educ.</td>
<td>.831</td>
<td>.700</td>
<td>.744</td>
<td>.885</td>
<td>.975</td>
<td>.759</td>
<td>.614</td>
<td>.316</td>
<td>.995</td>
<td>.990</td>
<td>.55</td>
</tr>
</tbody>
</table>

* The notation following the candidates' names indicates the wave, where P1 is January, C1 is April, and P2 is June. A figure in parentheses underneath a full line indicates that the term loaded on the other factor as well as the first factor. The value reported in the theta delta column is the error covariance for the terms "afraid" and "uneasy." The fit measures are the Goodness of Fit Index, the Adjusted Goodness of Fit Index, and the probability associated with the appropriate chi-squared test.
Table 8: Correlation between Positive and Negative Affect, by Education Level.\(^a\)

<table>
<thead>
<tr>
<th>Candidate</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennedy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Educ.</td>
<td>-.500</td>
<td>-.664</td>
</tr>
<tr>
<td>Low Educ.</td>
<td>-.651</td>
<td>-.665</td>
</tr>
<tr>
<td>Carter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Educ.</td>
<td>-.329</td>
<td>-.560</td>
</tr>
<tr>
<td>Low Educ.</td>
<td>-.440</td>
<td>-.396</td>
</tr>
<tr>
<td>Reagan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Educ.</td>
<td>-.539</td>
<td>-.461</td>
</tr>
<tr>
<td>Low Educ.</td>
<td>-.480</td>
<td>-.349</td>
</tr>
</tbody>
</table>

\(^a\) The correlations reported are from the appropriate phi matrix, based on the factor analysis presented in Table 4.6.
factors by education level. Once again, there is no real pattern of differences. In January, lower education respondents have more highly correlated factors for Kennedy and Carter, but by April this difference has disappeared or even been reversed. The Reagan models do show some stability, in that the higher education respondents have more strongly correlated factors at both time points.

While there do appear to be some educational differences in the affective structure, any trend present is not overwhelming. The one area of interest is the difference in loading patterns for the two education groups. This suggests that education is somehow related to what emotions are stimulated in an individual. The mixed pattern of correlations are inconclusive about the effect of emotion of emotional constraint.

The final division of the population was made on the basis of partisan intensity. Recall that Abelson et al. (1982) found that stronger partisan identification was associated with higher correlations between positive and negative affect. The proposed explanation was that strong partisans were more likely to filter information in such a way as to result in higher correlations. Testing that here, the respondents were divided on the basis of partisan strength. All respondents who claimed to strongly identify with a party were coded as "strong," while all others (including independents) were deemed "not strong." Just as above, this analysis was done only for three candidates at two time points.

The structure of the model, as assessed with the various loadings looks very much like the previous models (Table 9). All models are two factors, with no
Table 9: Loadings and Fit for Structure of Affect, by Partisan Intensitya

<table>
<thead>
<tr>
<th>Cand/Wave</th>
<th>Angry</th>
<th>Afraid</th>
<th>Uneasy</th>
<th>Disgusted</th>
<th>Hopeful</th>
<th>Proud</th>
<th>Sympathetic</th>
<th>Theta Delta</th>
<th>GFI</th>
<th>AGFI</th>
<th>Prob. $X^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kennedy-Pl</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong ID</td>
<td>.956</td>
<td>.839</td>
<td>.789</td>
<td>.870</td>
<td>.927</td>
<td>.927</td>
<td>.567</td>
<td></td>
<td></td>
<td>.70</td>
<td>.996</td>
</tr>
<tr>
<td>Not Strong ID</td>
<td>.859</td>
<td>.750</td>
<td>.740</td>
<td>.900</td>
<td>.910</td>
<td>.894</td>
<td>.699</td>
<td>.266</td>
<td></td>
<td></td>
<td>.997</td>
</tr>
<tr>
<td><strong>Kennedy-Ci</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong ID</td>
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<td>.808</td>
<td>.850</td>
<td>.909</td>
<td>.932</td>
<td>.985</td>
<td>.749</td>
<td></td>
<td></td>
<td>.67</td>
<td>.996</td>
</tr>
<tr>
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<td>.676</td>
<td>.910</td>
<td>.703</td>
<td>.958</td>
<td>.884</td>
<td>.640</td>
<td>.261</td>
<td></td>
<td></td>
<td>.999</td>
</tr>
<tr>
<td><strong>Carter-Pl</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong ID</td>
<td>.951</td>
<td>.618</td>
<td>.718</td>
<td>.849</td>
<td>.948</td>
<td>.685</td>
<td>.476</td>
<td></td>
<td></td>
<td>.28</td>
<td>.988</td>
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<tr>
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<td>.423</td>
<td>.878</td>
<td>.479</td>
<td>.781</td>
<td>.794</td>
<td>.559</td>
<td>.319</td>
<td></td>
<td></td>
<td>.998</td>
</tr>
<tr>
<td><strong>Carter-Ci</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Strong ID</td>
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<td>.777</td>
<td>.849</td>
<td>.856</td>
<td>.931</td>
<td>.526</td>
<td></td>
<td></td>
<td>.05</td>
<td>.987</td>
</tr>
<tr>
<td>Not Strong ID</td>
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<td>.574</td>
<td>.463</td>
<td>.896</td>
<td>.859</td>
<td>.773</td>
<td>.707</td>
<td>.293</td>
<td></td>
<td></td>
<td>.994</td>
</tr>
<tr>
<td><strong>Reagan-Pl</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Strong ID</td>
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<td>.661</td>
<td>.707</td>
<td>.782</td>
<td>.1004</td>
<td>.812</td>
<td>.677</td>
<td>.417</td>
<td></td>
<td>.15</td>
<td>.990</td>
</tr>
<tr>
<td>Not Strong ID</td>
<td>.848</td>
<td>.659</td>
<td>.691</td>
<td>.967</td>
<td>.879</td>
<td>.848</td>
<td>.578</td>
<td>.413</td>
<td></td>
<td></td>
<td>.997</td>
</tr>
<tr>
<td><strong>Reagan-Ci</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Strong ID</td>
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<td>.668</td>
<td>.807</td>
<td>.905</td>
<td>.857</td>
<td>1.054</td>
<td>.560</td>
<td>.318</td>
<td></td>
<td>.64</td>
<td>.995</td>
</tr>
<tr>
<td>Not Strong ID</td>
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<td>.766</td>
<td>.753</td>
<td>.875</td>
<td>.859</td>
<td>.746</td>
<td>.627</td>
<td>.244</td>
<td></td>
<td></td>
<td>.997</td>
</tr>
</tbody>
</table>

a The notation following the candidates' names indicates the survey, where Pl is January, Ci is April, and P2 is June. A figure in parentheses under a full line indicates that that term loaded on both affect factors, with the extra loading being the value in the parentheses. The values in the theta delta column are the error covariances between "afraid" and "uneasy." The fit measures are the Goodness of Fit Index, the Adjusted Goodness of Fit Index, and the probability associated with the appropriate chi-squared test.
cross-loadings. The theta delta coefficient between "afraid" and "uneasy" had to be freed in just over half of the models. There is a weak trend for strong partisans to load more highly on the negative terms than do the not-strong partisans. The fit, measured with the GFI, AGFI, and the chi-squared probability, looks good for every model. The strong partisan model for Carter in April is more marginal in fit. This stems from the a priori standards set for freeing parameters. The modification index for the theta delta value between "afraid" and "uneasy" was the largest in that model, but did not satisfy the predetermined guideline. Freeing that parameter would improve the fit. However, to be consistent with the a priori guidelines, the decision was made not to do so.

The correlations between the affective terms broken down by partisan intensity emphatically support the Abelson et al. results (see Table 10). For every candidate and at every time point, the strong partisan group has higher correlations between positive and negative affect. The largest difference appears with Carter, with the increase in phi approaching 0.3 at one point. The correlations for the not-strong partisans in both the Kennedy and Reagan models are higher than those for Carter. This makes some degree of sense, given the more extreme reputation of both those candidates. Such reputations are more likely to trickle down to those with less intense partisan affiliations.

Conclusions

The basic structure of affective response to candidates in the 1980 nomination campaign was found to be a rather simple two-factor structure. The observed indicators were found to load highly on a positive and negative factor. This corresponds to
Table 10: Correlation between Positive and Negative Affect, by Partisan Intensity*

<table>
<thead>
<tr>
<th>Candidate</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennedy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong ID</td>
<td>-.737</td>
<td>-.686</td>
</tr>
<tr>
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<td>-.638</td>
</tr>
<tr>
<td>Carter</td>
<td></td>
<td></td>
</tr>
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<td>Strong ID</td>
<td>-.520</td>
<td>-.653</td>
</tr>
<tr>
<td>Not Strong ID</td>
<td>-.308</td>
<td>-.394</td>
</tr>
<tr>
<td>Reagan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong ID</td>
<td>-.636</td>
<td>-.460</td>
</tr>
<tr>
<td>Not Strong ID</td>
<td>-.445</td>
<td>-.357</td>
</tr>
</tbody>
</table>

* The correlations here, drawn from the appropriate phi matrix, are based on the confirmatory factor analysis reported in Table 4.8.
numerous findings reported by other researchers. There was little change across candidates or time. Exceptions appear to fit the nature of the political world at that time (ie. "proud" loading on the negative factor for Carter after the failed rescue mission).

The pattern of loadings was very similar across all subgroups. The correlations between the two factors did not systematically vary partisan direction or education level. A significant pattern was found when looking at the correlation when broken up by partisan intensity, with stronger partisans having higher correlations, as had been noted in the literature.

What do these results say to the substance of affective response? Other than indicating the appropriate manner of incorporating emotion into a larger model, what kind of conclusions do these results support? The rejection of the one dimension model as a representation of affect is also a rejection of the theory of affect that casts affective response as a very organized, perfectly constrained sort of process. While no one has explicitly argued this approach in the literature, it has been implicit in a sizable portion of research. Works that omit affect or include it as a simple product at the end of an otherwise cognitively-driven process seem to be implicitly saying that emotional response is a unidimensional construct. Such a finding is at odds with the dominant ideas on affective response. The two factor model incorporates the realistic idea that individuals may possess mixed emotions about any single stimuli, and that the relationship between these mixed emotions is not constant. In that sense, it seems that the two-dimensional model is a more veridical model. While a model with more than 2 dimensions is not explicitly tested here, the bulk of the existing empirical evidence
weighs in supporting the 2 dimensional model. The major work on a 3 dimensional solution indicates that the third dimension largely discriminates between the fight or flight emotions, while playing little role in the positive emotion terms. Lack of appropriate data prohibits an explicit statistical test of this model. However, on the basis of the other criteria (theoretical fit), the three dimension model is less appealing. The additional complexity of the representation does not offer an appropriate payoff in our understanding.

The goal of this chapter was to evaluate the structure of affect in the 1980 nominations. The results clearly support modeling affect as a two factor structure. The statistical evidence backing this choice is strong. The theoretical base of the two-dimensional model is much more appropriate for a model that posits affect as a potentially major factor in evaluation. This two-factor structure can be incorporated as either factor scores or as latent terms in a larger covariance model. Beyond that, there are numerous little details that could enrich later analysis. For example, different factor scores could be calculated for different partisan intensities, and then entered into the larger evaluation model. Alternatively, the sample could be divided by partisan strength when examining the place of affect in a larger model.
CHAPTER IV
THE CONCEPTUAL AND EMPIRICAL DISTINGUISHMENT OF AFFECT

The preceding analysis offers an answer to the question of affective structure. Yet, the case must still be made that affective response has a place in a model of candidate evaluation. If affect is simply another way of expressing an overall evaluation of a candidate, then this work merely represents a rather detailed investigation of a tautology. Fortunately, this does not seem to be the case. The goals of this chapter are to demonstrate that 1) the concept of emotional response is not the same as overall evaluation of a candidate, and 2) that the relationship between the basic concepts of emotional response and evaluation is systematic and logical.

Given the goals of this section of the analysis, there are two basic questions. The first involves the degree to which affect and evaluation contain unique information. If the overall evaluation of a candidate held by an individual represents the exact same information captured by the individual's emotional response to that candidate, it would be nonsensical to discuss the two as separate concepts. The second question, which is of interest only once the second has been satisfactorily answered, involves the exact nature of the relationship between the various measures. The relationship between emotional response and evaluation should be systematic. Stated in another way, the
relationships between the emotional response terms and the evaluative terms should be non-zero. A random relationship would likely produce a relationship that cannot be clearly distinguished from zero. Yet, this is not enough. It is also expected that the relationship between the affective terms and evaluation will be logical. That is, the relationship between positive and negative emotional response should be in the direction that one would expect. Specifically, it is expected that positive affect will be positively associated with evaluation (increasingly positive emotional response is associated with increasingly levels of overall evaluation), and negative affect will be negatively associated with evaluation (increasing levels of negative emotional response will be associated with decreasing levels of overall evaluation).

It is important to note as these relationships are discussed that it is not the absolute role of emotions in evaluation that is being estimated. The purpose of this chapter is to show that emotional response simply has the possibility of influencing overall evaluation. Perhaps the best way to think about this is as a question of importance. Rather than say "the absolute effect of positive emotion on evaluation is $x$," the desired result of this chapter is to be able to say something along the lines of "positive emotion has a significant and logical relationship with evaluation." It may not be possible to estimate "true" effects in this case, as the application of survey data to what may well be a complex mental process is sure to produce some errors in the estimation.
Strategy

Demonstrating that affect plays an important role in the development of candidate evaluations is likely to be very difficult. One possible first step to such an answer involves looking at the stability associated with affective response. First, what is the baseline level of stability present over the course of the nomination? Is the basic emotional response to a candidate constant over the campaign, or does it move about in response to outside influences (or, perhaps, does it move about randomly)? How does the stability of emotional response compare to the stability of evaluation? A second step towards identifying the importance of emotional response is to examine the relationship between affect and evaluation. What is the relationship between affect and overall evaluation at a given time point? Does early affect predict later evaluation? Alternatively, does early evaluation predict later emotional response? The third step towards identifying the importance of affect is to examine the impact of information on the stability of affect and the relationship between affect and the evaluative terms. Does incoming information (defined as candidate-specific items learned during the campaign) have an impact upon affective response, or does affect act as a filter, bringing incoming information into agreement with existing impressions? If affect is the product of more objective information processing, the structure and role of affect should react to material gleaned from the campaign. However, if the affective response of an individual to a given candidate acts as a guide to some process of selective perception, it is possible that an individual may show significant learning during the campaign, all of which appears to support the original affective response. Early affective response
would predict later affective response (and possibly evaluation), in spite of any learning that may have taken place.

**Measures Used in the Analysis**

The research design was developed in such a manner as to allow the above questions to be addressed. Minimally, there needed to be some mechanism to examine the structure of affect response, examine the stability of affective response and its relationship with evaluation, and lastly, examine the effects of learning on the various parts of the model.

*Emotion* The assessment of emotional response to candidates is accomplished with the questions discussed in the previous chapter. Recall that the text of the general question went as follows: "Think about ________. Now, has _______ -- because of the kind of person that he is, or because of something that he has done -- ever made you feel angry?" A valid reply to this question was a simple yes or no. During the nomination period surveys, there were no follow-up questions asking about the extent to which any given emotion was experienced. There are two important things to note about this question. First, the question explicitly points out to the respondent that reactions may be based on something concrete ("something he has done"), or may be merely based on the impression of the candidate as a person ("because of the kind of person that he is"). There are very few survey questions that so explicitly allow the relatively uninformed an easy and valid response. Second, the affect questions lack a concrete time frame. This is not troublesome for new, relatively unknown candidates,
but for well known candidates, the "ever" part of the question may encompass a significant unit of time. If respondents answer the question in strict adherence to the language, it would be impossible to distinguish between an individual who was angered by Reagan in 1976 but has since overcome that emotion, from an individual who currently reports a state of anger associated with the former California governor.51 In spite of the weaknesses associated with this set of questions, it is the only source of data that we have on emotional response to real-world candidates in a natural setting. As will be shown below, the problems of a limited response range and unlimited time frame in the response do not appear to fatally damage the analysis.

Evaluation The overall evaluation of the candidates is assessed with the traditional feeling thermometer. While this is not a perfect measure, it does allow a decent assessment of the relative standing of the candidates. The raw thermometer scores do have some problems, however. Some respondents use only a portion of the scale, giving responses that have some "false" upper or lower bound. Others use the full range, anchoring the disliked candidate at zero, and their own preferred candidate at the

51 While the anchorless time aspect of the question is annoying, it is easy to imagine the debates that would occur over a question constructed with an explicit time frame: "Has Carter ... made you feel angry in the last 6 months?" The effect of such a change would be merely to shift the concern from a lack of time frame to the debate over any arbitrary time unit. Of course, one alternative would be to ask the respondent if they were angry with the candidate right now. Such considerations do not resolve the issue at hand, however.
top of the scale. The concern for most of the analysis done here is not with this arbitrary location of each candidate on this 101 point scale. Rather, the question is one of how candidates are evaluated with respect to other candidates evaluated by that individual. Therefore, the raw scores were manipulated in such a way to produce evaluations that are standardized within individuals. Specifically, the manipulation shown in Equation 1 was applied to each score.

\[
Adjusted \ Evaluation_j = \frac{Raw \ Evaluation_j - Mean \ Evaluation_j}{Standard \ Deviation \ of \ Evaluation_j} \tag{1}
\]

The result is the adjusted evaluation of the j'th respondent for the i'th candidate. The raw evaluation is the raw thermometer score of individual j on candidate i, while the mean evaluation and the standard deviation of the evaluations are calculated for the j'th individual on the basis of the entire set of responses by that individual to the feeling thermometer questions. The resulting adjusted evaluation represents the j'th individual's evaluation of the i'th candidate, where the unit is a standardized score showing the evaluation of that candidate with respect to the other candidates evaluated.

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52 See Wilcox et al., (1989) for a discussion of this sort of problem with the thermometer.

53 Only the ratings of individuals went into the calculation of the mean and standard deviation. Ratings of groups (such as the parties, unions, liberals, and so forth) were excluded. There were 14 individuals asked about in both the January and June waves. The respondent had to have rated at least three of these to be included in the analysis. Many respondents answered the vast majority of the thermometer questions. Of the 14 questions used in January, 70% answered 8 or more. In June, 73% answered 8 or more.
by that individual. This procedure eliminates some of the problems associated with the
thermometer scores that arise when wanting to compare relative evaluations across
respondents.\textsuperscript{54}

Analysis

The analysis in this chapter takes place at two levels. First, the observed
indicators are examined in some detail. This microlevel detail can add substantial
context to the larger analysis. Second, the relationship between the latent affective
dimensions over time will be explored, as will the relationship between affect and
evaluation.

The Observed Indicators The detailed emotional response questions comprise the
lion's share of the observed indicators used in this analysis. Respondents were asked
the 7 question battery in both the January and June waves (subject to passing the filter
question). The early answer may be compared to the later answer to look at patterns of
stability in this set of indicators. One example of such a comparison may be found in
Table 11.

The table shows the responses to the question asking if President Carter had
ever made the respondent feel uneasy. As can be seen, almost seventy percent of
respondents gave consistent replies in both waves (answers in the main diagonal of the

\textsuperscript{54} This standardization of the evaluation is a useful procedure. However, this is not to
say that the raw scores can never be examined. Indeed, there are portions of this
analysis that do just that. However, for making comparisons across individuals in a
model of evaluation, the adjustment seems most appropriate.
Table 11: Has Carter Made the Respondent Feel Uneasy?

<table>
<thead>
<tr>
<th>Uneasy (January)</th>
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<th>No</th>
</tr>
</thead>
<tbody>
<tr>
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<td>11.8</td>
</tr>
<tr>
<td>No</td>
<td>20.5</td>
<td>30.4</td>
</tr>
</tbody>
</table>

Entries are percentage of total. Kendall’s tau-b=0.36, N=813,
Almost forty percent of respondents gave Yes-Yes replies, while approximately thirty percent gave the No-No response pattern. This is a significant level of stability for an individual attitudinal indicator. A suggestion of the effects of a campaign may be seen in the off-diagonal. The lower left cell, just over twenty percent of the sample, indicates what portion of the sample did not feel uneasy about Carter in January, but did report such feelings by the time of the second survey in June. Stated another way, about one-fifth of the sample went from a "desirable" reply (never having felt uneasy about Carter) to an "undesirable" reply (having felt uneasy about the President). The opposite effect is in the top right cell. This is the percentage of the sample who reported feeling uneasy about Carter in the early survey, but by June reported not feeling that way. Technically, this cell should contain no responses (or all responses in this cell should be dismissed as simple measurement error). Since the question asks the respondent if they have "ever" felt such a way about a given candidate, there should not be a Yes-to-No pattern of switching. The pattern of responses suggests that as least some of the respondents are answering with a limited time frame in mind when faced with this question.

The distinction of interest in this table is the contrast between stability and change, as well as if the change is for the better or worse. The stable response was

55 In this analysis, the view of a response as desirable or undesirable comes from the candidate perspective. Affirmative responses to positive affect questions are viewed as desirable, as are replies to the negative questions that indicate that the respondent has never felt that emotion about that candidate. It would be an unusual campaign that would seek to generate negative emotions in the public (at least about their own candidate).
sizable, while about thirty percent showed change over the campaign. Of those showing change, for every change to the "desirable" response, almost 1.8 respondents changed to the "undesirable" response. Thus, the effect of the campaign (assessed only with this single indicator) is a tainting of the incumbent. The process of campaigning moved more respondents to feel negative after not feeling that way than moved formerly negative responses to new non-negative responses.56

The same sort of analysis was done for each candidate and each question of the emotional battery. The summary results, broken down by positive and negative affect, are shown in Table 12. This table shows the percentage of the sample that gave stable responses (Yes-Yes or No-No), No-to-Yes response patterns, and those with a Yes-to-No pattern. Also shown is the "desirable to undesirable" ratio (which is simply the proportion of the switches that were undesirable divided by the proportion that were desirable). As can be seen in the first column, the dominant pattern is one of stability on the indicators. For every candidate, the average percentage of stable responses was over 70 percent. The breakdown of Yes-Yes and No-No replies (which is not detailed in the table) varies considerably across candidates. High profile candidates (such as Carter and Kennedy) have a split between the two that is approximately equal, while candidates with less exposure are more heavily skewed. The extreme example is that of George Bush. When asked about the negative affect terms with regards to Bush, an

56 Of course, it is not clear if exposure to a candidate is alone enough to generate negative emotions or if a candidate suffers at the hand of opposition candidates and negative campaigning.
Table 12: Stability & Change in the Indicators - All Respondents

<table>
<thead>
<tr>
<th>Negative</th>
<th>Consistent Response</th>
<th>No-to-Yes</th>
<th>Yes-to-No</th>
<th>Undesirable/Desirable Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter</td>
<td>72.9</td>
<td>19.3</td>
<td>7.6</td>
<td>2.56</td>
</tr>
<tr>
<td>Kennedy</td>
<td>76.2</td>
<td>14.1</td>
<td>9.8</td>
<td>1.44</td>
</tr>
<tr>
<td>Reagan</td>
<td>79.5</td>
<td>12.5</td>
<td>8.0</td>
<td>1.56</td>
</tr>
<tr>
<td>Bush</td>
<td>88.8</td>
<td>7.75</td>
<td>3.4</td>
<td>2.28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Positive</th>
<th>Consistent Response</th>
<th>No-to-Yes</th>
<th>Yes-to-No</th>
<th>Undesirable/Desirable Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter</td>
<td>73.2</td>
<td>10.2</td>
<td>16.7</td>
<td>1.64</td>
</tr>
<tr>
<td>Kennedy</td>
<td>78.7</td>
<td>9.2</td>
<td>12.2</td>
<td>1.32</td>
</tr>
<tr>
<td>Reagan</td>
<td>73.8</td>
<td>17.0</td>
<td>9.2</td>
<td>0.54</td>
</tr>
<tr>
<td>Bush</td>
<td>71.5</td>
<td>15.1</td>
<td>13.4</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Entries are average percentages of total sample.
Average N: Carter=812.0; Kennedy=771.4; Reagan=706.4; Bush=266.0.
average of 80 percent gave the stable No-No reply (while only about 3 percent of the
total gave the Yes-Yes response pattern on the negative terms). Not having much
experience with Bush, the respondents appear to hesitate in reporting negative feelings
about the candidate. In contrast, however, they did show a willingness to report
positive emotions about the candidate. About 30 percent of the total sample gave the
Yes-Yes response when asked about positive emotions for Bush, while the No-No
pattern accounted for approximately 31 percent.

Table 12 also shows the average change associated with each candidate on both
dimensions of affect. Labeling the No-to-Yes change as "undesirable" on the negative
affect terms, and the Yes-to-No change as "undesirable" on the positive terms, one can
see that the "undesirable" changes average about 12 or 13 percent, while the "desirable"
changes average about 8 percent. This "tainting" effect of the campaign seen in the
single indicator examined above appears to hold up for all the indicators for each
candidate. Indeed, examination of the ratio in the last column shows that in every case
save two, there were more "undesirable" changes than there were "desirable" ones. The
high point is almost 3 responses shifting to an undesirable reply for every one shifting
to a desirable response (Carter on negative terms). Only the response patterns for
Reagan and Bush on positive affect show an actual gain (the ratio is less than one), and
Bush's is ratio is rather close to being an even draw. Clearly, there is some shifting in
the individual indicators of emotional response over the course of the nomination
Returning to the consideration of the Yes-No responses, one weakness stands out. This is the fact that it is difficult to determine what portion of these respondents are actually reporting a meaningful change and what portion represent random noise that is found in every survey. One way to get some rough sense of this is to look at how the people answering Yes-No for a given candidate evaluate that same candidate at both time points (assessed with the adjusted thermometer). If the switch from Yes to No on the affect question is random, one would not expect to see a related change in the evaluation of that candidate. If the Yes to No switch is meaningful, then it may be possible that the adjusted evaluations will reflect that. Table 13 gives a sense of what the mean adjusted evaluations look like for Carter and Reagan, based on the pattern of replies to two emotional response questions. While the pattern in the results in not obvious, there is something there. When looking at "angry," it is expected that a yes-no pattern would be associated with an increase in average evaluation, while a no-yes pattern would be associated with a decrease (the obvious expected mechanism is that if the voter has been made to feel angry by the candidate, the overall evaluation may also reflect the impact). Turning to "hopeful," a yes-no pattern would be expected to produce a decrease in average evaluation, while the no-yes pattern would be associated

57 The pattern seen in the ratio of undesirable to desirable responses raises an interesting question, albeit one that is not answerable at the present. Early in nomination period, the one candidate that shows more switches to a desirable response than to an undesirable one is the candidate that won the general election. Perhaps a close eye on shifting emotional response is an indicator of what is to come. Lacking data for other years limits this idea to speculation, but it is intriguing speculation.
Table 13: Mean Adjusted Ratings by Response Pattern

<table>
<thead>
<tr>
<th></th>
<th>Yes-Yes</th>
<th>Yes-No</th>
<th>No-Yes</th>
<th>No-No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angry</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carter</td>
<td>0.15/-0.32</td>
<td>0.52/0.55</td>
<td>0.69/0.16</td>
<td>0.97/0.79</td>
</tr>
<tr>
<td>Reagan</td>
<td>-0.64/-0.57</td>
<td>-0.25/0.52</td>
<td>0.00/-0.02</td>
<td>0.29/0.68</td>
</tr>
<tr>
<td>Hopeful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carter</td>
<td>0.96/0.70</td>
<td>0.36/-0.17</td>
<td>0.54/0.26</td>
<td>-0.05/-0.51</td>
</tr>
<tr>
<td>Reagan</td>
<td>0.81/1.12</td>
<td>0.17/0.16</td>
<td>0.00/0.71</td>
<td>-0.36/-0.17</td>
</tr>
</tbody>
</table>

Entries are mean evaluations for each candidate in January and June, broken down by response pattern.
with an increase (again, the expectation is that an individual who has been made to feel hopeful by a candidate is likely to view that candidate in a more positive manner).

As the results in the table show, the expectations are only partially met. The incumbent (and eventual general election loser) is associated with declining average evaluations at almost every point, even the no-yes or yes-no patterns where an increase is most likely. Looking at Reagan, the pattern is almost the perfect opposite. He is associated with increasing average evaluations almost all the time, with the exception being when there should be decreases. Even then, the decrease is indistinguishable from zero. Thus, it appears that the candidates were on diverging tracks, and these larger patterns overwhelm the individual questions examined here. While the expected pattern was not found, it is clear that there is some relationship. Carter's evaluation is dropping across time, and it drops a larger amount among those who report a changed emotional response that reflects poorly on the president. Reagan's overall evaluation is increasing across time, and the increase is smallest when individuals' report a change in their emotional response that reflects poorly on the former California governor. The changes in the responses to the same emotional response question over time correspond to changes in evaluation of the candidates.\textsuperscript{58}

Another piece of evidence that evaluation and affective response are systematically related may also be found in the 1980 data. The September pre-election

\textsuperscript{58} A similar pattern emerges when looking at partisanship across the two time points in the various response patterns. The movement is nearly all out of the independent category, and Reagan gets the vast majority of these.
wave of the survey (which is not used in the remainder of this analysis), asked a follow-up on the emotional response battery. The respondents were simply asked, of the emotions they reported feeling about a given candidate, which was strongest. The next step was to relate these responses to evaluation. Figure 3 does that by showing the average thermometer (unadjusted) rating for each candidate for each possible response. A line has been drawn at 50 (the theoretical neutral point on the thermometer). As can be seen, in every case, the average thermometer scores associated with each of the negative emotions is less than 50, while every positive emotion is associated with average scores greater than 50. This fails to answer any questions of primacy or causality, but it does show very clearly that the relationship between emotion and evaluation is a systematic one, at least at the level of the observed indicators. It also indirectly alleviates some concern about the Yes to No switches that take place, in that it adds support to the notion that the responses to the individual emotional response questions represent more than some random response.

Stability of Latent Affect and Evaluation

The Basic Model
In order to more fully assess the stability of emotional response, the analysis must move to the latent terms. By including the evaluative terms at this point, the importance of affect in evaluation can be assessed. Figure 4 shows the basic model tested in this chapter.

The method of analysis in this chapter is to use a covariance modeling approach. The benefit of this is that it allows the factor structure portion of the model (as
Figure 3: Mean Rating by Strongest Emotion

Note: Means are marked with a diamond, with bars running plus and minus 2 standard errors.
Figure 4: Basic Model
discussed in the previous chapter) to be estimated at the same time that a structural model between the latent terms is tested. This allows some gain with respect to the efficiency of the estimates (specifically in the standard errors). The measurement portion of the model (the factor structure) estimated here may be slightly different than was reported in the previous chapter as a result of estimating the full set of relationships (both the measurement and structural models).

Using this approach makes some assumptions. The basic assumption is that the relationship between the terms is linear in its effect, which is no different than is assumed in ordinary regression analysis. There are also assumptions about multivariate distribution and level of measurement. The multivariate distribution of the variables is expected to be normal (although the routine used here is distribution-free, meaning that it is not sensitive to departures from normality). LISREL makes the assumption that the variables are all interval and continuous. In this analysis, use of the PRELIS routine to estimate the correlations addresses that concern.

The model covers two time points (January and June), including both affective terms and an evaluative term at each point. The observed indicators are operationalized as discussed above. The measurement side of the model is straightforward. The makeup of the structural portion of the model is worthy of some discussion. An examination of the figure shows that early emotional response is allowed to influence the contemporary evaluative term as well as the later evaluative term. Each affective term at the first time point is, of course, allowed to influence that same term at the second time point. Evaluation at time one is allowed to influence evaluation at time
two, as well as the emotional terms at time two. The presence of this path allows for the estimation of the influence of previous evaluation observation on emotion, after considering the influence of the previous emotion terms. The total impact of affect at time one on evaluation at time two, then, includes the direct path, as well as the indirect paths. Similarly, evaluation at time one may influence evaluation at time two both directly and indirectly. As suggested by the literature, positive and negative emotional response at the same time point do not have a causal linkage. This represents the idea that while there is certainly a relationship between the different modes of emotional response, one does not absolutely cause the other.

The nature of this model is worth some additional comment. A glance at the figure reveals that the model is simple, if not bordering on primitive. Recall that the goal of this chapter is not to estimate exactly what influence emotional response has on evaluation. Rather, it is to build the argument that even considering such a question is valid. Demonstrating that emotional response is systematically related to evaluation is a key step en route to that point. If the relationship between emotions and general evaluation were found to be one of pure randomness, it would be hard to justify the inclusion of the former in a model of the latter.59

59 The analysis reported here is the product of covariance structure modeling, estimated in basically the same manner as the simple confirmatory factor models in the previous chapter. The iterations followed the Fisher Scoring method, while the optimization technique was weighted least squares. The results presented here are based on latent terms that are standardized to a variance of one.
A comment on model fit

There exists a range of measures that may be used to assess the fit of a model such as the one presented here. The single most commonly used is based on the $\chi^2$ distribution. Specifically, the overall fit statistic that is calculated as -2 times the log of the likelihood function is distributed as $\chi^2$.\textsuperscript{60} This fit measure is used to test the null hypothesis that the differences between the observed $S$ matrix and the estimated $\Sigma$ matrix are small enough to be a product of sampling fluctuations.\textsuperscript{61} It is important to note that an insignificant $\chi^2$ value is desired, as this indicates that the differences between the observed and estimated data are close enough to be a product of sampling variations. Stated in another way, an insignificant $\chi^2$ does not mean you have the "true" model, but it does mean that the observed data closely resembles the data that would be expected by the model being tested. A significant $\chi^2$ in this instance would indicate that the difference between what is observed and what is hypothesized is too great to be attributed to randomness in the sample if the "true" model is what is represented by the estimated model.

\begin{equation}
\text{df} = \frac{1}{2}(p+q)(p+q+1) - t
\end{equation}

where $p$ and $q$ are the number of observed indicators for the exogenous and endogenous terms, respectively, and $t$ equals the number of parameters estimated in the model.

\textsuperscript{60} The degrees of freedom are calculated as follows:

\textsuperscript{61} The $S$ matrix is the set of observed covariances (or correlations in some cases) between some number of observed variables. The corresponding (unobserved) population parameters are represented by the $\Sigma$ matrix. A combination of the observed variables (in the form of the $S$ matrix), the model, and the method of optimization are used to generate an estimated $\Sigma$ matrix.
One way to think of this is to consider exactly what it means to test the null in this fashion. The norm in social science is to set up hypothesis tests in such a way that allows the researcher to reject the null in favor of the alternative (when the alternative is the substantively interesting case, such as X having an impact on Y). In this case, the null hypothesis is that the model, as specified, is the "true" model. The observed variables are hypothesized to have been produced by an underlying process as indicated in the model. The covariance structural model is specified and the observed data are fit to the model. This allows an estimate of the underlying population data to be generated. The null hypothesis simply compares this estimated population data to the observed data. If the two sets of data (assessed by S and the estimated Σ matrices) are similar enough to attribute the differences to the randomness of sampling, then the null is not rejected. If the differences are significantly large, the null is rejected. The substantive meaning of this is that the deviations of the observed from the estimated covariance (or correlation) matrices are too large to attributed only to sampling issues. So, if the null is not rejected, the model that was specified is a possible representation of the underlying true model. If the null is rejected, the model, at least as specified, cannot be said to represent the underlying true model (within the bounds of the statistical test).

Within the realm of social science, however, it is rare that researchers are able to estimate the "true" model. It is in this vein that Jöreskog and Sörbom (1989) suggest that the χ² statistic be used not so much as a critical value for a hypothesis test but rather as an overall indicator of "goodness of fit." The larger the value of the statistic the worse the fit, while the smaller values are associated with better fitting models. The
calculated degrees of freedom are the standard by which the size is judged. The suggestions offered by Jöreskog and Sörbom are an acknowledgement that social science operates in a world of limited information. In that spirit, the comments are well-taken, and while they should not be used as a shield behind which one could hide a poor model, they do provide a more hospitable environment for judging preliminary models.

While Jöreskog and Sörbom make a strong case for the interpretation of $\chi^2$ as a goodness of fit measure, there are some problems with the use of this as a sole indicator of fit. The value of this test statistic is responsive to sample size, in that larger samples are likely to increase the value of $\chi^2$ above where it would be if just a product of specification error in the model, holding all other forces equal. As stated by Bentler and Bonett (1980, 591), "The probability of rejecting any model increases as $N$ increases, even when the model is minimally false..." Deviations from multivariate normality in the observed indicators will also lead to abnormally high values. Thus, use of the $\chi^2$ test raises several questions. Should it be used as a critical test or a more general indicator? If used as a general indicator, what standard is used to judge it? No matter how it is interpreted, what can or should be done about its responsiveness to sample size and issues of nonnormality?

Numerous attempts have been made to get around the issues associated with the $\chi^2$ measure. The Goodness of Fit Index (GFI) is based on the ratio of the fit function for the model to the fit function before the model was fitted (see Jöreskog and Sörbom 1989, p. 44). The Adjusted GFI is similar, but takes into account the number of degrees
of freedom in the model (not unlike the adjusted $R^2$ reported in regression analysis).

The GFI and AGFI measures are not directly determined by sample size, but the overall distribution of the measure does react to the size of $N$. Another way to assess the overall fit of the model is to examine the root mean squared residuals (designated as RMR). The RMR is the average of the fitted residuals and must be evaluated in comparison to the observed data in the S matrix. The utility of the RMR measure is best when the observed variables have been standardized (Jöreskog and Sörbom 1989, 44). One other attempt to resolve the problems of assessing overall fit was that of Bentler and Bonett (1980). They offer two measures for use: the nonnormed fit index and the normed fit index. Each are based on ratios of the fit of the model to the fit of some null model. The nonnormed fit index, which is designated as $\rho$, can be thought of as the improvement in fit obtained by moving from the null to the model tested. Because there are unusual circumstances which could lead $\rho$ to be negative, they offered a normed version of the measure which will always be bounded by zero and one. The interpretation is the same. The values of $\rho$ are usually interpreted in a fashion where anything below 0.9 means that the model can probably be improved upon.

One of the problems with the implementation of the nonnormed fit index (as well as the normed) is that they each require a null model to be specified. The null can be thought of as the theoretical end of a set of hierarchical models. In a simple confirmatory factor analysis, it may be that the null specifies no common factors ($z$ indicators with $z$ factors). In a structural model, it may mean that each of the observed measures is represented by its own latent term, and there are no relationships between
the latent terms. The fit for the null model can be compared to the fit for the model of interest as follows:

\[ \rho = \frac{Q_0 - Q_a}{Q_a - 1} \]

where \( Q_0 \) is the fit of the null (\( \chi^2 \)) divided by the degrees of freedom; \( Q_a \) is the same thing but calculated for the alternative model.

The biggest substantive problem with the use of \( \rho \) is the specification of the null model. There may exist a null that has many uninteresting paths that would never be freed, but the fully null model doesn't take this into account.\(^{62}\) For example, in a large structural model, the researcher may have a half dozen latent terms in the model of interest, each of which may have 6 indicators. Does she specify a null that shows no relationship between the observed indicators, or does she acknowledge the structure of the latent terms and leave the measurement side of the model alone, thus just testing a structural null model (all path coefficients set to zero)? The answer she selects will influence her assessment of fit if using either of the Bentler and Bonett indices. The formula for \( \rho \) can easily accommodate a competing model that is not fully null. The value for \( Q_0 \) in the numerator can be replaced with a value \( Q_k \) which represents some

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\(^{62}\) In the text, the phrases "fully null" and "truly null" are used to describe the most severe null model. That is, a model that has the largest number of relationships constrained to be zero is the fully null model. For example, a model with all structural relationships constrained to zero and each of the observed variables loading on one exclusive latent term each could be a reasonable fully null model.
model more restrictive than the true null, but less than the model of interest. How does one find that middle ground? The answer would appear to depend on the status of the theory. If the theory of the model is so strong and well-grounded that it can make fine distinctions, then one would prefer to use a more restricted null. If the theory is in its infancy, then it may be more useful to use a null model that is closer to the true null.

Not much advice exists for the researcher. Bentler and Bonett simply state that "In general, the most restrictive, theoretically defensible model should be used..." (1980, 600).

What does this mean for the results presented here? In each of the models that follow, a variety of overall fit measures have been presented. These include $\chi^2$, GFI, AGFI, and $\rho$. The model discussed in this chapter was not developed as the "true" model. Rather it is offered as an interim step. If affect is to matter in a larger model of evaluation, it would certainly be expected to behave in certain ways in this smaller model. In that light, the theoretical null for the $\chi^2$ test does not seem appropriate. Since this is the case, the overall measures of fit should be considered as general indicators of "goodness of fit." Since each of the indicators has its own unique characteristics, the set of indicators should be considered as a whole.

The last issue of fit is the question of what null model should be used in the calculation of the nonnormed fit index ($\rho$). Given that the overall theory of emotional

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63 Note that the denominator stays $Q_0 - 1$, even if a different equation is used in the comparison in the numerator. This statistic, then, allows the comparison of hierarchical models.
response is weak, the "most restrictive, theoretically defensible" model is not likely to be very well developed. The null that used in this chapter is the fully null model. That is, the value of $\rho$ is based on a comparison of the model as estimated to the model that features each observed variable being represented by its own latent term, with no causal links between the latent terms. This is the most hospitable environment for finding a reasonable model fit. It may be that the "most restrictive, theoretically defensible" null will become more restrictive with time.\footnote{For some of the analyses presented here, the null model was first computed in a separate run. However, a new release of the LISREL software calculates both the normed and non-normed fit indices. These numbers are identical to the ones that were computed by hand, and were relied on throughout the remainder of the analysis.}

\textbf{Results} When the basic model is fit to Carter using the entire sample (see Figure 5), several interesting results are apparent. First, the stability of the affective terms over the campaign is significant, and in this case, is higher in the case of negative affect.\footnote{The path coefficients in the model can be viewed as measures of stability in this model. Clearly, changing the model (adding terms or paths) will change the estimates.} The squared multiple correlations (SMC) for the two affective terms in the June wave are substantial, accounting for some 65 percent of the variance, on average.\footnote{Recall that in the last chapter, the squared multiple correlations represented the ability of the observed variables to serve as instruments for the latent terms. In the model presented here, there is also a SMC for each of the structural equations. This represents the amount of variance in the latent term that is explained by other latencies. For example, a SMC of 0.75 for positive affect at time 2 would indicate 75 percent of the variance in that term could be explained by positive affect at time 1 and evaluation at time 1.} Turning to the evaluation elements of the model, one can see that the early affective latencies...
Evaluation at time 2
Positive Affect
Negative Affect
Hopeful
Afraid
(Disgusted
Uneasy

Note: Insignificant values are underlined.
N=762. Indicators of fit: p=.017, GFI=.99, AGFI=.99, normed fit index=.99
SMCs: Positive 2: .61, Negative 2: .70, Evaluation 1: .64, Evaluation 2: .67

Figure 5: All Respondents - Carter
have a significant impact on early evaluation. Increasing levels of positive emotional response to Carter are associated with increasingly positive evaluation of the President (in respect to the evaluation of other political figures). Similarly, increases in negative emotional response are associated with increasingly negative relatively views of Carter. Turning to the second time point, the June measures of affective response have an significant relationship with the June evaluation term. The effects are in the directions expected, with negative emotional response having a bit more influence on June evaluation. The total variance accounted for in the both evaluative terms is between 60 and 70 percent. Interestingly, the path between evaluation at time 1 and evaluation at time 2 has a statistically insignificant coefficient, in contrast to the paths between the affective terms. If the path coefficients are read as a measure of stability, this would suggest that there exist a higher baseline of stability on the emotional response to Carter than exist in the overall evaluations of him.

One of the important questions of this research involves the relationship between early affect and later evaluation. Looking at the direct path between the affective terms at time 1 and the evaluation of Carter at time 2, one finds that neither of these paths reaches a traditional level of significance. The direct impact of early

67 The coding of the observed indicators has been reversed to produce intuitive signs. The expected association between the affective and evaluation terms is as follows: Increasing positive affect is expected to be positively associated with increasingly positive evaluations, while increasing negative affective response is associated with increasingly negative evaluations. Stated in terms of signs, the path between positive affect and evaluation is expected to be positively signed, while the link between negative emotional response and evaluation is expected to have a negative sign.
affective response on later evaluation is impossible to distinguish from zero when controlling for the influence of the affective terms via indirect paths through January evaluation and June affect. However, the total influence of the early affective terms on evaluation at time 2 is approximately equal to their effect on evaluation at time 1. The standardized total effect of positive emotion at time 1 on evaluation at time 2 is 0.40, while the same estimate for negative emotional response is -0.41. The numbers (as shown in the figure) for early positive and negative emotional response on early evaluation are 0.51 and -0.45, respectively. Thus, early affective response does exert significant influence on later evaluations of Carter, albeit indirectly.

The mirror-image of the early affect to late evaluation paths are those from early evaluation to later emotional response. In the Carter model, only one of these paths (the effect of evaluation at time 1 on positive affect at time 2) reaches a traditional level of significance. The impact of the January evaluation on the June measure of negative affective response is impossible to distinguish from zero. The relative effect of evaluation in January on emotional response in June is small. That is, the influence of early evaluation on later emotional response is one of the weaker terms shaping that emotional response (at least in this form of the model).

There have been a number of error covariances freed in this model. In the measurement model, the error covariance between any observed variable measured at times 1 and 2 has been estimated (excluding evaluation). These paths were freed on the
basis of a priori thoughts about what paths should be included. Of the seven covariances freed, five were significant (hopeful and disgusted were insignificant). The magnitude of these covariances varied considerably. The largest (0.4) is associated with what the literature has clearly identified as the least satisfactory observed indicator of positive emotional response ("sympathetic"). The remainder of the over-time covariances averaged about 0.20. Given the dynamic nature of the model, the pattern of significance in the error structure should not be surprising.

The overall fit of the model, as assessed with a variety of summary fit measures, is satisfactory. The $\chi^2$ value for the model has an insignificant value ($p=0.017$). The goodness of fit index (GFI=0.99) and adjusted goodness of fit index (AGFI=0.99) both reflect a good fit. The normed fit index ($p=0.99$) also reflects a nice fit. The values for the SMCs indicate that the model accounted for about 65 percent of the variance in each of the endogenous latent terms (see the figure for specific values). On the whole, this collection of indicators would suggest the model fits the Carter data rather nicely.

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68 Given the over-time aspect of this model, not allowing the error-covariances to be estimated would almost certainly violate the basic assumptions required to generate reasonable results.

69 Certain minor aspects of each model should be reported, but are not worthy of space in the text or in the figures. Therefore, these things will be noted in notes. In the case of the Carter model, it should be noted that both theta epsilon and theta delta were estimated in diagonal form and all elements were significant. In theta epsilon, the values associated with evaluation at both times 1 and 2 were constrained to be equal to 0.1. The values in psi associated with evaluation at times 1 and 2 were constrained to be equal.
The analysis of the terms with respect to Reagan is shown in Figure 6. On the whole, these results closely mirror those found for Carter. For overall evaluation in January, positive affect has a significantly greater influence than does the negative term. The same pattern is present in June (in a weaker form). The ability of the affect terms to explain the variance in the latent evaluation terms is about the same as it was for Carter. For Reagan, just under 80% of the variance in January evaluation is accounted for by the model, while the June evaluative term has about 66% of its variance explained (compare to the relatively consistent explanatory power in the Carter model). Both positive and negative emotional response have significant impacts on evaluation at both time points. The two emotional response terms are correlated at -0.5 in the first wave, and -0.4 in the second wave.

Looking at the stability of the terms across time, the Reagan model again resembles the Carter model. The path between January and June evaluations is marked by a statistically insignificant coefficient. The stability of the emotional terms averages almost the same as the Carter results, but in this case the two estimates are identical. The SMC's for the June emotion terms average 0.61.

Turning to the question of January emotions and their impact on the June evaluations, once again it can be seen that the direct paths again fail to reach significance. The total influence of early affect on later evaluation, however, is in the expected direction (with early positive affect having a slightly larger impact on June evaluation than early negative affect: 0.42 vs. -0.31). Among the various latent terms influencing June evaluation, the total effects of the January emotional response terms
Note: Insignificant values are underlined.
N=689. Indicators of fit: p<.001, GFI=.99, AGFI=.99, normed fit index=.99
SMCs: Positive 2: .67, Negative 2: .56, Evaluation 1: .70, Evaluation 2: .73

Figure 6: All Respondents - Reagan
are roughly equal to the total influence of January evaluation.

As shown in the figure, the paths from January evaluation to June emotions meet with mixed results. The path from early evaluation to later negative emotion response is significant and in the proper direction. The path from early evaluation to the June assessment of positive emotion is not statistically significant.

Just as in the previous model, there have been some error covariances freed. As was done in the case of Carter, the links between the same emotional term at each time were freed (ie. the error covariance between afraid at time 1 and afraid at time 2). In the Reagan model, 4 of the 7 error covariances were statistically significant. The largest was again the covariance associated with the term "sympathetic." The average magnitude of the covariance was, just as in the Carter model, about 0.2. Considering the nature of repeated measures across time, the presence of these significant paths should not be surprising.

Turning to assessments of overall fit for the model, the indicators suggest a model with reasonable fit. The value for $\chi^2$ has a significant value ($p<0.001$). Strict interpretation of the test would result in rejection of the model as a reasonable one. However, the other measures of fit indicate the model is not bad. The value for GFI is 0.99, as is the value for the adjusted GFI. The estimate for $\rho$ is also 0.99. Given the early stage of theory in this field, the significant $\chi^2$ value is not as troubling as it would
be in a more developed area.\textsuperscript{70}

The third major candidate of the 1980 election is one that would certainly be expected to be associated with strong reactions. Ted Kennedy, because of his own actions as well as the fact that he is a part of the high-profile Kennedy clan, should be an interesting case to examine. Analysis in the previous chapter has shown that Republicans have higher levels of emotional constraint with respect to Kennedy than do Democrats. In other words, for members of the GOP, the presence of negative affect is a strong predictor of the lack of positive affect towards Kennedy. The Democrats were more likely to have a mixed emotional reaction to this candidate. Turning to the analysis at hand (see Figure 7), however, one can see that the analysis of the entire sample yields results that, in broad terms, are much like those for the other candidates. There is stability in the affective terms (with the negative term being associated with surprisingly high level). The early affective terms do a reasonable job of accounting for variance in the later emotional terms, explaining an average of about 76\% of the underlying variance. The relationship between the emotion terms and the evaluative terms at each time point are as expected. In January, increasing levels of positive emotional response are associated with increasing increasingly positive evaluations of

\textsuperscript{70} The minor details in the case of Reagan are as follows. Theta epsilon was estimated in diagonal form with nearly all elements free. All free values were significant, save one (hopeful). The values of theta epsilon associated with the two evaluation terms were fixed at 0.15. Theta delta was also estimated in diagonal form, with all elements free. All were significant. Additionally, the path between uneasy and afraid was freed in the estimation. The result (0.3) was significant. Finally, the values of psi for the two evaluation terms were constrained to be equal.
Figure 7: All Respondents - Kennedy
Kennedy. Greater levels of negative emotions are associated with lower levels of evaluation. The influence of the positive term is greater than that for negative emotions. In June, the base relationship holds for positive affect, but the relationship between negative affect and evaluation is insignificant. The estimate of the variance explained in each of the latent evaluative terms is the same, 84%. Finally, just as in the models for Carter and Reagan, the path between evaluation at time one and evaluation at time two is not statistically significant. This insignificance is in stark contrast to the markedly high level of stability found in negative emotional response for Kennedy.

Turning to the impact that early affect has on later evaluation, the direct paths between early affect (both positive and negative) and late evaluation fails to reach statistical significance. The indirect effects, however, are noteworthy. The total impact of early positive emotional response on June evaluation, 0.61, is significant, as is the total impact of the early negative emotional term (-0.30). Comparison of the effect of early and late emotional response on late evaluation makes it clear that there is a unique contribution offered by the emotions reported in January. Indeed, the total impact of the early terms averages almost the exact value of the impact of June positive emotion.

Looking at the influence of early evaluation on later emotional response, it is clear that, in the case of Ted Kennedy, there is no significant linkage. Evaluation of Kennedy in January is not related to positive or negative emotional response in June.

Finally, the usual set of error covariances were freed. Five of the seven freed coefficients (hopeful to hopeful, proud to proud, etc.) were significant (hopeful and disgusted were not). The largest value was again associated with the "sympathetic"
term. The average value was just under 0.2. Just as in the case of the other two models, it appears that there was some over-time stress in the set of repeated measures.\textsuperscript{71}

The last major candidate of the 1980 race is perhaps the most interesting with regards to the dynamics of the nomination. George Bush emerged from the pack as the major challenge to Reagan during the early primary period. Very few knew much of Bush at the start of the nomination season. Indeed, examination of the filter question used by the NES on the candidate questions shows that just over 33 percent of the January sample recognized Bush’s name and felt like they knew something about him. This is in contrast to more than 85 percent that recognized the other major candidates in January. Bush was the subject of sizable gains in familiarity over the course of the campaign, however. By the June wave, just over half the respondents were able to both recognize his name and felt that they knew something of him. Such learning did not penetrate the entire public. Fully 35 percent of those interviewed in both January and June were unable to pass the relatively easy threshold question. One of the implications of this is that, since the affect questions were asked only of those who passed the threshold, and since the analysis needs the affect measures at both time 1 and time 2,

\textsuperscript{71} In the case of the Kennedy model, the theta epsilon matrix was estimated in diagonal form, with all elements free, except for those for the two evaluation terms (they were constrained to equal 0.1). All were significant except for the covariance associated with "hopeful." Additionally, the off-diagonal covariance between afraid and uneasy was estimated in the model. The result, 0.16, is significant. Theta delta was also estimated in diagonal form with all element free. All but "hopeful" were significant. Two off-diagonal covariances were freed (angry-disgusted, and afraid-uneasy). Both were significantly different from zero. In the psi matrix, both the terms associated with evaluative equations were constrained to be equal to each other.
the number of Bush respondents is small. Indeed, it is so small that great care should be used in considering the following results.\footnote{In order to calculate the asymptotic covariance matrix, PRELIS wants 1.5k(k+1) cases, where k is the number of variables. In this case, k is 16, resulting in a recommended minimum number of cases equal to 408. There were 255 usable respondents on the Bush questions. Note that the small N properties of the WLS estimates based on the asymptotic weight matrix are not known to be bad. Rather, they simply are not known. Large N estimates are known to be efficient and unbiased.}

The basic model for Bush shows results that fit the general mold (see Figure 8). There is significant over-time stability in the affective terms. The amount of the underlying variance explained in the June emotional terms is a little bit less than in the other 3 models, but is still reasonable. The relationship between affect and evaluation in January is as expected. Increasing levels of positive emotional response are associated with increasingly positive relative evaluation in January. Likewise, increasing levels of negative emotional response are tied to lower evaluations. In the June wave of the survey, neither of the emotional terms are significant predictors of evaluation. Again, the proportion of the underlying variance explained in the evaluation terms, while acceptable, is less than in the previous models. This may be, at least in part, a result of the smaller usable sample size in this case. It is interesting to note that this is the only model for the major 4 candidates that has a significant linkage between evaluation in January and evaluation in June.

The direct relationships between early emotional response and later evaluation and the mirror-image running from early evaluation to later emotional response all fail to reach traditional levels of significance. The total effect of early emotional response
Note: Insignificant values are underlined.
N=235. Indicators of fit: p=.66, GFI=.98, AGFI=.97, normed fit index=.97
SMCs: Positive 2= .52, Negative 2=.47, Evaluation 1=.44, Evaluation 2=.57

Figure 8: All Respondents - Bush
(both positive and negative) on June evaluation is significant. The total impact of positive affect is 0.44, while the value for negative affect is -0.18. The total impact of early evaluation on the later emotional response terms fails to reach significance in any case. Within the limits of the decreased confidence in this model, it would appear that the first emotional response to Bush did exert some meaningful influence on the evaluations of Bush by the end of the primary period.

As in the previous models, some over-time error covariances were freed. Only three of the seven error covariances for the repeated measure terms were significant. For these three, the average value is approximately 0.22. The pattern shown in the other models (of these terms generally being significant) may be weakened here by the small N. It is also possible that there really is less of a problem in this model, but it is impossible to resolve given the limits of the data.

When talking of the overall fit of the model, it is important to recall the previous discussion on the effects of sample size on the usual significance tests. With that caveat in mind, the $\chi^2$ assessment of fit produces an insignificant value ($p=0.66$), thus failing to reject the null. The GFI is 0.98, and the adjusted GFI is 0.97, both suggesting a model of acceptable fit. The normed fit index has a value of 0.97. Consideration of the set of estimates leads to the conclusion that the model represents the data in a fashion that is acceptable, especially given the small sample size.  

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73 The estimation details for the Bush model are much like those for the other models. Theta epsilon was estimated in diagonal form, with all elements free (save those associated with the evaluative terms). Of the seven elements estimated, three were not (continued...)
Conclusion

The basic results found for each of the four major candidates are very similar. In every case, early emotional reaction was not a significant predictor of later evaluation (at least directly). The trend of greater stability in the emotional terms holds up across the board. Indeed, the actual level of stability is similar across the candidates. The correlation between the affective terms at each point are of the expected direction, and, just as in the previous chapter, those in the Bush model are lower than the other models. There exists one basic set of results that can be said to exist that is not candidate specific.

Of the minor differences that exist for the different candidates, what kinds of political conclusions can be drawn? The short answer, unfortunately, is that not much can be said. Bush has a lower level of relationship between positive and negative affect, perhaps as a result of being a relatively unknown candidate. Kennedy, being a unusually well known candidate, had higher levels of relationship between positive and negative affect. Such conclusions, however, were possible from the previous chapter's analysis. When considering the whole of the sample in a dynamic model of evaluation and emotional response, it appears to be possible to model the process, but that the process is somewhat static across candidates.

...continued

(continued)

significant (hopeful, angry, afraid). The elements of theta epsilon associated with the two evaluation terms were constrained to equal 0.1. Theta delta was also estimated in diagonal form, with all elements free. Four of the seven elements were not significant (hopeful, proud, angry, and afraid).
What can be concluded is that examination of the major candidates of the 1980 nomination shows that emotional response is systematically related to overall evaluation. Certainly the exact nature of the role remains to be worked out, but the consistent results reported in this section are encouraging. The other task of this chapter was to take the first steps to show that including emotional response and evaluation in the model is not a tautology. It is to this task the next section turns.

The Effect of Learning

Recall that one of the goals of this chapter is to develop some empirical support for the importance of affect in the development of a candidate evaluation. The two extreme positions are 1) affect is influenced by (and merely a product of) information gathered during the campaign (making affect "not important"), and 2) existing affective response is a selective screen, unaltered by the campaign experience (affective response being of great importance). Therefore, one step in this research is to examine the relationship between learning and affect. Should information obtained in the campaign not lead to shifts in emotional response, affect can be viewed as being, at least to some degree, as a potentially meaningful player in the development of candidate evaluation.

While the preceding analysis has demonstrated that affect is largely stable, and has a systematic relationship to evaluation, it has not resolved the question of affect and evaluation representing a tautology. Examination of the effects of learning during the campaign represents a step in that direction. While there is a sizable literature on campaign effects, there exists no easy way to assess learning about the candidates. The
strategy followed here will be to simply look at the number of candidate-specific questions that each individual was able to answer at each time point. This is certainly a crude measure of learning. It would be more desirable to have some fashion of measuring objective knowledge in a manner that would permit "real" learning to be separated from "false" learning generated by projection effects. The measure here, while rough, should be satisfactory for the current purpose.

The panel study included five questions about each candidate in the January wave, and six on each candidate in the June wave. The questions utilized were those that asked the respondent to place the candidate on an issue or ideological scale. For instance, the individual was asked to place Reagan on a 7-point scale with regard to relations with the Soviet Union. A simple count was made of how many questions the respondent could answer about each candidate at each time point. A respondent was said to have "learned" if the number of questions answered in wave 2 was at least one greater than the number answered in wave 1. As an example, take a respondent that answered 3 questions about Reagan in January (about 60 percent of the questions asked about the candidate). If that individual answered 4 questions in June (66 percent of the questions asked about Reagan in that wave), they were marked as having learned during the campaign. Looking at responses by candidate, the majority of respondents learned over the course of the campaign. This is true at each level of response. Take the case of respondents who answered 4 questions about Carter in wave 1: 70 percent were able
to answer 5 or 6 in the second wave. In every case, for each possible number of responses in wave 1 (1 to 5), the majority of individuals answered at least one more question in the second wave.

If affective response is merely the product of information obtained during the campaign, one could expect that the gain in information would lead to some change in the response pattern to the affect questions. For this not to be so, it would have to be the case in which all incoming information conformed completely with existing emotions. Such a condition seems rather unlikely. So, if there is no change in emotions, despite what appears to be an objective increase in knowledge about the candidate, the conclusion that affect serves as a mediator of incoming information rather than a product of purely cognitive evaluation (or, alternatively, the new information could be inferred from affect) receives some support.

The percentage of respondents "learning" increased as the original score increased. That is, there were more learners at the high end (answering 4 or 5 questions in wave 1) than there were in the low end (answering none, 1, 2, or 3 questions in wave 1). This certainly makes sense, in that those with no interest in politics are less likely to know anything early in the campaign and less likely to pick up information along the way.

Also, an individual who answered all questions at each time point is marked as a learner, in spite of the fact that they hit the maximum score both times. About 25% of the respondents fell into this case. These individuals are different from the remaining learners, but only in minor ways. They are a bit more interested in politics (difference in the mean scores for the two groups averages just under 0.5 on a 5 point question), and interviewers assess them as being just a tad more knowledgeable about politics (difference in the mean scores averages about 0.7 on a 5 point scale). In every case, the differences are within about one standard deviation. While those respondents who answered all questions at each time point are different, they do not appear to be so different as to damage the analysis by their inclusion.
One of the first ways to examine this is to look at how the observed indicators move about with the different learning conditions. Using the above definition of learning, the responses to the affective battery can be explored (see Table 14). This table, similar to Table 12, shows the percentage of the sample that gave consistent replies as well as changes to the emotional question. As before, the results are broken down by positive and negative affect, as well as by candidate. However, in this table, the respondents are also broken down by status as learner.

One of the obvious predictions stemming from the "affect as product" hypothesis is that there will be a smaller percentage of consistent replies among learners than among non-learners, in that the new information is likely to have an impact on the responses. A quick scan of the table shows that this is not the case. There is absolutely no pattern of differences in the consistent replies with respect to learning. Similarly, the two groups giving changed responses are not significantly different. The undesirable/desirable ratio indicates that those who learned during the campaign did not become more negative in their emotional response than did those who did not learn anything. It can be concluded, then, that the observed indicators do not support the premise of affect as a product of objective information.

The structural analysis from above may also be repeated for the learners. As a result of sample size limitations, two steps are required at this point. First, Bush must be dropped from the analysis; there were simply too few respondents to do any
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<th>Yes-to-No</th>
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Entries are average percentages based on the respondents in each category.
meaningful analysis. Second, the models were run only for those who learned in the campaign. While it would have been preferable to run learners against the non-learners, both groups could not be analyzed separately. Dependent on the definition of learning, one group always fell into the zone of dangerously low sample size. So, the analysis that follows is based only upon those individuals who learned during the campaign (according to the definition above).

The analysis of respondents who learned something about Carter is shown in Figure 9. The basic set of results for respondents learning something about Carter look largely like those for the entire pool of respondents. The level of stability in the affective terms is approximately the same as before, as is the amount of underlying variance in the two June measures of affect that could be accounted for by the model. The effects of emotion on evaluation within each time point is as expected. Just as in the case of the entire sample, positive affect has more impact than negative affect in the January wave, with the situation reversed by the time of the June wave. Indeed, the linkage between positive affect and evaluation at time 2 is not significant. The ability of the model to account for variance in the two evaluation terms (averaging 0.70) is about the same as in the first analysis. Finally, the path between evaluation in January

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75 Recall there were only 255 viable respondents for Bush in the first model. Dividing the sample by status as learners greatly reduces this already painfully small number.

76 The response patterns of the observed variables for learners and non-learners are so similar that analyzing just the learners seems less troubling. If the observed indicators had differed significantly for the two groups, the structural analysis of the non-learners would be of greater importance.
Note: Insignificant values are underlined.

N=514. Indicators of fit: p=0.8, GFI=.99, AGFI=.99, normed fit index=.98.
SMCs: Positive 2: .67, Negative 2: .73, Evaluation 1: .69, Evaluation 2: .71

Figure 9: Learners - Carter
and evaluation in June is yet again insignificant.

Turning to the over-time relationships between evaluation and emotion, the trend of insignificant direct paths continues. The direct links from early emotion to later evaluation are insignificant. The indirect paths, however, do reach significance. The total impact of positive emotional response in January on evaluation in June is assessed at 0.48, while the value for negative affect is -0.38. Looking at the other aspect of the linkage (early evaluation's influence on later emotions), one finds mixed results. Evaluation in January has no significant impact on negative affect in June, but does on positive affect (which then has no significant impact on evaluation in June). To the degree that any linkage appears to exist, it is best described at running indirectly from early emotions to later evaluation.

The usual set of error covariances were freed in this model in order to satisfy the assumptions associated with the time series structure of the model. Of the seven covariances estimated, two were not significant (hopeful and disgusted). That for sympathetic was unusually large, just as it was in the case of the first Carter model. The value for the others again averaged around 0.2.

The fit of the model appears satisfactory. The effect of reducing the sample by about 250 respondents could be to alter the probability associated with the chi-squared test, and indeed, this appears to have been the case. The value for the log likelihood test is 76.61 (p=0.8). However, all the remaining assessments appear roughly the same as in the first model (GFI = 0.99, adjusted GFI = 0.99, normed fit index = 0.98), thus raising
suspicions that the change in the \( \chi^2 \) test are largely a product of changing sample size.\textsuperscript{77}

Turning to the analysis of those showing some increase in objective knowledge of Reagan, the similarity to the total sample is again apparent (Figure 10). The stability of the affective terms across time is sizable (with positive emotional response being somewhat more stable than negative). The variance that is accounted for in the June measures of emotional response are adequate (SMC's were 0.65 and 0.49). The relationship between emotions and evaluation at either time point are the same as exist for the whole sample. Increasing positive affect is associated with increasingly positive evaluations of Reagan, while the increasing negative emotional response is associated with less favorable evaluations. In what is unusual for this set of models, all four links (positive and negative emotion in January to evaluation in January, positive and negative emotion in June to evaluation in June) are significant. At both time points, the impact of positive affect is greater than that of negative affect. Of the underlying variance in the evaluative terms, an average of about 75\% is accounted for by the model. Finally, the path from evaluation in January to evaluation in June is not significant.

Turning to the question of what impact early emotions may have on later evaluation, once again the direct paths fail to reach a significant level of influence. The

\textsuperscript{77} In the Carter model of learners, theta epsilon and theta delta were both estimated in diagonal form, with all elements free and all results significant. The two elements in theta epsilon dealing with the evaluation terms were fixed at 0.1. Additionally, the two entries in the psi matrix associated with the evaluation equations were constrained to be equal to each other.
Figure 10: Learners - Reagan

Note: Insignificant values are underlined.
N=456. Indicators of fit: p<.001, GFI= .99, AGFI= .98, normed fit index=.98
SMCs: Positive 2=.65, Negative 2=.49, Evaluation 1=.74 Evaluation 2=.76
total effect of the early emotional terms, however, does have a significant impact on
June evaluations (for early positive affect, the coefficient is 0.44, while the number for
early negative affect is -0.32). Thus, the trend of the impact of early emotions
influencing later evaluations via indirect linkages continues.

The linkages between early evaluation and later emotional response produce a
significant result. Higher relative evaluations in January were associated with a lower
level of negative emotions in June. Since higher scores on the latent negative emotional
response term work to lower the relative evaluation, the effect of evaluation on later
emotion starts a process that could have implications across time. The linkage between
early evaluation and the June measure of positive affect failed to reach significance.

The set of seven error covariances was freed in the emotion aspect of the
measurement model. Only three were significant (sympathetic, angry, and afraid),
averaging about 0.2. These results are very similar to the Reagan model as estimated
for the full population.

The overall fit of the model appears to be satisfactory. The $\chi^2$ measure is
significant ($p < 0.01$), but the other measures suggest a reasonable fit. The Goodness of
Fit Index is 0.99, while the adjusted GFI is 0.98. The normed fit index is 0.98. Taken
in sum, the assessments of overall fit indicate a model with some minor problems.

However, as discussed early, at this stage of development in the field, the fit is probably
acceptable.\textsuperscript{78}

The final major candidate to be examined is Ted Kennedy (see Figure 11). Again, the results for learners closely mirror those for the entire population. There is significant stability in the affective terms across time (SMC's for the June emotions average 0.79, with average stability coefficient of 0.82). The linkage between evaluation in January and evaluation in June is not significant. The relationship between emotions and evaluation at either time point are predictable. Of the four paths in question, only 1 is significant (positive affect in January to evaluation in January).

Again in this model, Kennedy has some of the highest correlations between positive and negative affect, averaging just over 0.65.

Turning to the question of relations between emotion and evaluation across time, this model fails to produce much. There are no significant direct linkages between evaluation in January and emotions in June, nor between emotions in January and evaluation in June. Of the indirect effects of early emotional response on later evaluation, only positive affect has a significant impact. The total influence of negative emotions (in January) on June evaluations is impossible to distinguish from zero.

The usual set of error covariance were estimated. The results are almost identical to those found for the entire sample. Two of the over-time covariances are not

\textsuperscript{78} In the Reagan model for learners, theta epsilon was estimated in diagonal form with all elements free (except for those associated with evaluation, which were set at 0.15). All elements were significant, save that for "hope." Theta delta was also estimated in diagonal form, and all elements were significant. Additionally, the elements of psi associated with the evaluation equations were constrained to be equal to each other.
Note: Insignificant values are underlined.
N=466. Indicators of fit: p=.96, GFI=1.0, AGFI=.99, normed fit index=1.0
SMCs: Positive 2=.72, Negative 2=.86, Evaluation 1=.88, Evaluation 2=.88

Figure 11: Learners - Kennedy
significant (hopeful and disgusted). The significant terms average just over 0.15.

The overall fit of the model is good. The entire collection of estimates support the idea that the data and the model fit well. The log likelihood test produces an insignificant score \( p = 0.96 \). The GFI and adjusted GFI are high (1.0 and 0.99), while the normed fit index is 1.0. Taken together, these indicate that the model does not represent a great departure from the data.\(^7\)\(^9\)

**Conclusion** The separation of learners from the rest of the sample produces, in essence, a set of non-results. The principal finding (a lack of differences for learners) indicates that affective reactions are largely stable across the nomination period, regardless of any apparent gain in candidate specific information. This would lead one to argue against the idea that affect is a result of consideration of specific information, updated rationally as new information is encountered. Rather, the results can be viewed as evidence pointing towards a role of affect as a guide to selective perception, a cue in inferences, or possibly the product of a completely different process than more cognitive terms.

Placed in the language of this chapter, this section of the results leads towards accepting the idea of affect as a meaningful factor in the development of candidate

\(^{79}\) For Kennedy, theta epsilon was estimated in diagonal form with all elements free (save the evaluation terms, which were set to 0.1). All elements except "hopeful" were significant. One off-diagonal element was freed, that being the covariance between afraid and uneasy. The resulting coefficient was significant. Theta delta was also estimated in diagonal form. The term associated with "hopeful" was the only one not reaching significance. The same off-diagonal term was freed in this matrix (afraid & uneasy), and it was also significant. The error terms for the evaluation equations (in the psi matrix) were constrained to be equal to each other.
evaluations. That is, the evidence leads to the conclusion that affective response is not the same thing as overall evaluation. The differing levels of stability between evaluation and emotional response and the fact that the links between affect and evaluation are often insignificant (across time or contemporaneous) both are general indicators that a model that contains the two concepts contains two different concepts.

Conclusions

The major goal of this chapter was to develop the argument that affect plays a significant role in the evaluation of political figures. The results demonstrate that affect should not be treated as merely a by-product of some other process, but rather as a factor with the possibility of exerting significant influence on evaluation. This conclusion is based on three major findings in the analysis. First, the different levels of stability in the emotional and evaluative terms supports the proposition that these are distinct terms. Second, the lack of differences in the relationship between affect and evaluation for learners and the total population indicates that affective response appears to not be purely a product of new learning. Finally, the pattern of relationships between emotion and evaluation at each time point, as well between time points, indicates that, while emotions are related to evaluation, the pattern of influence and the ability to explain evaluation are such that the idea of emotion and evaluation as a non-tautology is supported.

The political implications of this analysis, while certainly tentative, can be speculated about to some degree. Perhaps the most interesting point to consider is the
similar patterns in stability and influence of affect response for both those who learned
during the campaign and the total population. If emotions play a meaningful role in the
development of the evaluation of political figures, and if emotional response does not
appear to be greatly altered by information gathered during the campaign, then the
literature on the influence of campaigns may be up for reconsideration. At this point in
the analysis, not much can be said with regards to the individual candidates and the
manner in which emotional response varies across candidates and campaigns. The
same general patterns discussed in the previous chapter are found here as well. Given
the very preliminary form of the model in this chapter, it is impossible to discuss
differing levels of importance played by emotion in the evaluation of different
candidates. The analysis of the next chapter takes a step towards incorporating affect
into larger models of evaluation.
CHAPTER V

ASSESSING THE ROLE OF EMOTIONAL RESPONSE

The task of incorporating emotions into an explanation of political behavior (rather than simply examining the structure or stability) is not an easy one. Numerous questions exist that have no easy answer, if an answer exists at all. Serious concerns exist about the measurement of emotions: How pure a measure of emotional response to a candidate can be obtained? Is the answer given in a survey or experiment tainted by the emotional status of the respondent at the time of the question being asked (information retrieval), or by the emotional state of the respondent at the time information was obtained (information encoding)? Is the basic measure of emotional response reliable?

Questions also exist about the applicability of survey data to this type of question. Given the measurement error associated with all surveys, how good a job can be done in measuring microlevel processes such as the generation of emotions. If the researcher is interested in the development of emotional response to some political stimuli, can repeated surveys be conducted in a fashion to capture the development, or is the entire process so quick as to be missed in a panel design? It may well be that the core process must be captured in a more controlled experimental study that manipulates
all aspects of the environment. If this is the case, then it is frustrating that the vast majority of studies of mass behavior are based on survey data. No argument on the need incorporate emotions will succeed as long as there exists no way to accommodate emotions in a model based on survey data. If an experimental measure can't be replicated or at least approximated in a survey questionnaire, the chances of this information being incorporated into new models of behavior are rather slim.

The one key issue underlying the discussion of what role emotions may play in political behavior is the question of how they should be incorporated in our current understanding of politics. Put another way, consider the major approaches to the study of mass behavior. If the task were simply to add an affective term to these models, where would it go? It may well be that it is impossible to just "add" emotion to an existing theory. Rather, there may need to be significant changes in the overall approach in order to make sense of the role emotion may play. The answer to that question must be drawn from the theory guiding the researcher. The issue of where affect fits into behavior is one that has been discussed at great length, but no clear answer exists.80 If the researcher feels that emotions are but a side-effect of the real process, then they can easily be excluded or just added at the end of model. If, instead, the researcher thinks that emotions occur in some more meaningful fashion, then they must be included in the model in a more substantive way. Exactly how this should be

80 The classic paper advocating a role for emotions in a world of cognitions is that by Zajonc (1982). Other papers of note in the exchange include, among others, Lazarus 1982, 1984; Tsai 1985; Zajonc 1984; Zajonc and Marcus 1982, 1985.
done is unclear. The process of model-building must address potentially unanswerable questions such as primacy and reciprocal effects of emotions.

A more subtle phrasing of this question involves the process by which emotional responses are generated. Does an individual have a standing judgement of candidates in the form of emotional response, or is this sort of information essentially recalculated from scratch each time the summary judgement is needed? This distinction closely parallels the contrasting memory-based models of candidate evaluation and the impression driven approach (see Lodge, McGraw, and Stroh 1989).

Fiske and Pavelchak (1985) examine these different forms of affective response in the context of schema theory. They portray a structure in which a top-level category label is associated with a positive or negative valence, as are each of the lower level attributes. Whatever the mechanism that generates the top-level affective judgement, that response can be accessed without accessing the lower level affective tags. They argue that if an individual can successfully place a stimuli in a broad category (one matching a developed schema), the top-level affective tag will be accessed. This is their example of category-based affective judgement. If the process of categorizing the stimuli fails, the respondent is then forced to use a slower piecemeal approach to generating an affective response. In this case, all or some of the lower-level attributes would need to be accessed to generate an affective response. They also hypothesize that the process of categorizing can be cued by a collection of attributes associated with the stimuli.
The work by Fiske and Pavelchak also poses a number of possible conditions in which categorical-based judgements would be more likely than piecemeal-based judgements (p. 190). They estimate that when a respondent is faced with a complex stimuli, categorical-based judgement is more likely. Similarly, when a respondent is less familiar with the category being accessed, they are more likely to default to a categorical approach. Finally, they suggest that an individual under some time pressure will use a category-based approach. Each of these conditions can be found, at least to some degree, in a political campaign during which a voter must react to candidates. People are, in general, complex creatures. Politicians, who are rarely experienced in person, are even more complex. Coupled with a relatively low level of information and a lack of first-hand familiarity, it seems likely that this would push an individual towards using a categorical-based approach. Finally, given the low priority to which most individuals apply to politics, many would seek to minimize the time needed to make political judgements. Although this is a self-imposed time pressure, it may well have the same effect. Considered as a set, these ideas would lead one to conclude that categorical-based affective responses are more likely to be observed in a campaign than are piecemeal-based responses.81

81 Rahn, Aldrich and Borgida (1994) show that the manner in which information is presented can influence the use of memory-based or on-line methods of evaluation. While their work does not extend to emotions, it is possible that the general idea of their finding may have some relation here, although without experimental data any such ideas are limited to speculation.
What would be the most desirable outcome of a study of emotions in politics would be a very explicit understanding of where emotions come from, as well as what role they play in the larger process of evaluating the political world. It is probably easiest if this point is broken into two parts for consideration. First, where do emotions come from? Second, what role do they play in the process of political perception and evaluation?

The question of the origin of emotional response appears to have no easy answer. There has been a rather heated exchange in the psychological literature about question of primacy of affect versus the primacy of cognition. While there are many nuances to the discussion (as well as what appears to be some miscommunication), the general outcome of the argument suggests a state of affairs that is far from agreement. Some argue that an individual's emotional response to a stimuli (be it person or object) is based on an initial cognitive assessment. Note that this could be interpreted in a way that is very conducive to the categorically-based affective response process suggested by Fiske and Pavelchak. If the initial cognitive assessment hits on favorable aspects, then the emotional response is favorable. If the first response is negative, the emotional response is likely to follow in that direction. The exact roots of that appraisal are not clear. It may be based on an individual's goals and their perception of whether the stimuli will help or hinder those goals (Roseman 1979). Alternatively, it may well be based on any number of idiosyncratic things, varying from person to person. It is worth

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*82 The following discussion draws from Ottati and Wyer (1993). See their discussion for more details.*
noting that Fiske and Pavelchak do not make clear how or even if the affective tags in their model are updated on the basis of new information or experiences.

A second, less visible version of the argument suggests that emotional response may be based on some cognitive processing, but that the individual may fail to recognize the process generating such a response. As Ottati and Wyer note, these cognitions represent a "holistic cognitive responses to a stimulus configuration that do not require an analysis of its individual features and, therefore, can occur without a conscious identification of these features" (1993, 300). An example given by Ottati and Wyer is that of a political speech in which the candidate's body language generates fear, but that the individual attributes that feeling of fear to the actual content of the speech. It should be noted that this approach is also compatible with the categorically-based affective response model.

The third interpretation of the roots of emotions is easily the most controversial. The leading voice on this front has been Robert Zajonc (1980). His argument is that affect may be present without prior cognitive activity. An object may become associated with some emotion generated by some stimulus. The object may be linked to the emotion in such a way that when an individual is exposed to the object in the absence of the stimuli, the emotion is still generated. Drawing on the example given by Ottati and Wyer, an individual may have some emotional reaction to a political event in which a candidate appears. When the individual later sees the candidate again in a different environment, the same emotional response may be generated due to the association between the stimulus (the first political event), the object (the candidate),
and the emotion (1993, 301).

The second half of the question posed above involves the role that affect may play in our understanding of political perception and evaluation. While this question may be somewhat entangled with the previous question of the roots of affect, it is useful to consider it separately in order to clarify the concepts involved. What aspects of political perception are influenced by emotional response to candidates?83

It is possible that individuals may use their emotions as a guide to fill in gaps in their knowledge. Ottati et al. (1989) consider the possibility that an individual may have some emotions elicited in response to some stimuli. The individual may then use that emotional reaction as a piece of information in the processing of the stimuli. Ottati and his colleagues go on to say that the individual may base his or her reaction to the stimuli on the elicited emotion rather than the "cognitions that gave rise to them" (p. 405). If Zajonc is correct in his argument that emotional response may be produced merely by exposure to some stimuli (without cognition), the emotional reaction that is present may well serve as information. A variant on this approach plays off the idea of repeated exposure producing increased levels of positive affect, even when there are not significant levels of cognitive awareness (Wilson 1979, Zajonc 1968). In other words, repeated exposure to a candidate, holding all else constant, is likely to be associated

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83 Ottati and Wyer make the distinction between evaluation, emotional response, mood, and affective arousal (1993). In the context of this paper, the concern is with emotional response (specific emotional reactions to candidates), which are then used to estimate an underlying affective response, which best corresponds to Ottati and Wyer's idea of evaluation (which they note may be all or in part determined by affect of some sort).
with an increase in positive affect. Of course, this effect could be countered by the learning of candidate-specific information that is negative in tone.

It is also possible that individuals do not use their affective response in any meaningful fashion. It may be a meaningless by-product of the whole perception process, or it may be generated by some parallel process that does not have any linkage to the cognitive portion of person perception, and contributes nothing to the final evaluative product.

If the most desirable result of a study of emotions is an answer to the questions developed above, we are almost certain to be disappointed. Testing these ideas with any great rigor requires a quality of data that is dearly missing in political science. A better understanding of where emotions come from requires careful study, most likely in the form of experimental manipulations. The design of such studies quickly grows complex as the setting of the experiment is expanded to resemble a realistic decision-making environment. These highly controlled manipulations, while perhaps identifying the process, are handicapped by the significant artificiality of the design. Estimating what role affect may play in the whole process of evaluation is also a challenging task. Ascertaining what contribution emotions may make is a very detailed, microlevel task. It is something that survey data - the most widely available data on political attitudes - is not perfectly suited to answer. The reality of survey data is that it probably is impossible to test such a model in any sort of a definitive fashion. The basic question needs to be recast in order to generate an answer. Rather than approaching the task as one in which the exact role of affect is estimated, the goal of the model-testing process
should be to estimate the approximate validity of the different approaches. These results can then be used as the groundwork in a more controlled study on emotions and the response to political figures.

**Logic of the Analysis**

While one goal of any analysis of emotions in political behavior would be to develop a full model of emotions and the role they play in the attitudes and actions of people engaged in political behavior, this is likely to remain a goal that is not fully met. As noted in the discussion of the literature, there exist so few works in this area that the level of conceptual development is strikingly limited. The presence of some significant understanding of emotions in psychology has proven difficult to import directly to the study of politics. Therefore, this analysis is in the position of having a very limited knowledge base built up in the literature that can be used as a launching pad. Given the tentative nature of our understanding, the structure of the analysis presented here is that of a step-by-step approach. While grand models may be easy to discuss, the methodological difficulties associated with such a model are staggering. The results, whatever they may be, will be more satisfactory if they rest upon a structure of carefully done, albeit smaller, steps.

The limited literature alone would suggest the first steps be exploratory in nature. However, additional reasons to proceed with caution and attention to detail are found in the attitudes towards emotions in the discipline. While the study of attitudes is so widely accepted that one could not speak of understanding mass behavior without
using attitudes in the discussion, the acceptance of emotions has been much more limited. Few published models of candidate evaluation or choice have used affect as an independent variable. When emotions have been used, they have been near the end of the model (see Rahn et al. 1990 for an example). Stated in the language of psychology, the discipline has been much more receptive to the modelling of cognitive factors than of emotional. While the reasons for this may vary from person to person, the result is that the field is not particularly easy ground for new ideas on emotion in behavior. For this reason, there is a value in a cautious process here.

The basic structure of the analysis presented here is based on the two concerns just raised. Rather than offer a complex model that, by its very design, may contain troubling assumptions or difficult issues of measurement or estimation, the path taken here is one of an incremental style. The first step of the analysis will be to estimate what could be described as a "typical" model of evaluation, simple in its structure. Then, over a series of estimations, emotions will be added to the model in a number of ways drawn from the different possible approaches. Care will be taken to address key areas of concern as the analysis unfolds. The analysis will culminate with an attempt to estimate a more complex model, with attention to the strengths and weaknesses of such an approach in this field.
Measures Used in the Analysis

The same set of core variables will be used throughout this analysis. There are two general types of variables used. The first is best described as information about the respondent. This would include any demographic information, as well as the respondent's description of his or her own attitudes. This class of variable is the same for each respondent regardless of which candidate is being considered. The second class of variables are those dealing with the respondent's assessment of the various candidates. This includes, for example, feeling thermometer ratings, assessment of viability, and ideology and issue placements of the candidates. Obviously, the same respondent need not have the same values for these variables across candidates.

Consider the first of the variables describing the respondent, partisanship. An extensive literature has developed around the question of how partisanship is measured and how stable it is when considered in the long run. Various works show shifts in stability in the aggregate distribution (Mackuen, Erickson, and Stimson 1990, Weisberg and Smith 1991), as well as individual variation (see Flanigan, Rahn, and Zingale 1989). Concerns have been raised about the measurement and conceptualization of

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84 It is important to note that the number of respondents available in any analysis decreases as the number of variables used increases. This is a result of listwise deletion for cases with missing data. There is a possibility that exclusion of individuals unable to answer the ideology, partisanship, and issue questions (which is where nearly all the missing data come from) may bias the results. The exact direction of the bias is unknown, but the possibility should be considered as the following results are presented. While the most likely bias would appear to come from excluding the less-informed (in that they may rely on emotional response to a greater degree), there is a chance that the more informed are better with emotions, largely as a result of being more attuned to politics.
partisanship (Green 1990, Miller 1991, Weisberg 1980). The collection of works, while not unified, clearly show that partisanship is not the benchmark once envisioned, and defies perfect measurement. However, the focus of the analysis at hand is on emotions, and a simple understanding of how respondents perceived themselves should be satisfactory. For that reason, the basic 7 point NES format is used, where 1 represents a strong Democrat and 7 represents a strong Republican. Use of the collapsed 3 point scale (Democrat, independent, Republican) was explored, but offered no clear advantage.

The second respondent variable, ideology, is treated in the exact same fashion. The basic NES question, in which respondents were asked to place themselves on a 7 point scale ranging from strong liberal (coded 1) to strong conservative (coded 7), was used. There was no attempt to recover those respondents who, in response to the question, declined to place themselves on the scale but did answer the follow-up question placing themselves, although later analysis does include this group of respondents. In some sense, it may be that those not thinking in ideological terms may be most likely to use emotional response as a cue, as they are not using one of the easier cues.

Dealing with the respondents' placement of themselves on the issues is a bit more difficult. Not many issues are asked about during the early waves of the panel. In the January and June interviews, respondents were asked to place themselves on 4 issue scales: defense spending, relations with the Soviet Union, government aid to minorities, and the level of government spending and services. A simple first-order factor analysis
showed that these four issues break very cleanly into two factors. The first factor, which I call Domestic Issues, includes the minority aid question and the government spending question. The second factor, International Issues, is based on the defense spending and relations with the USSR questions. In both January and June, the factor solution was rotated (varimax) for the cleanest solution, although the solution in each is close to orthogonal. The factor scores for each factor at each time point were extracted and used in the analysis.

The second general class of measures, those involving the respondent's evaluation of the candidates, include assessments of viability, overall evaluation, and affective response. Obviously if the models were to be comparative in nature, then this list would also include the respondent's placement of the candidates on the issues.

The assessment of perceived viability is not an easy task. As Bartels (1988) demonstrated, individuals are not particularly good at assessing and rating the likelihood of success for each candidate. In the 1980 NES, the questions on viability are rather limited. Rather than the 100-point scale assessing chances, respondents were simply asked who they thought would win the nomination, and then were asked a follow-up question on whether they felt it would be close or not. Using these two questions, a three point scale was built to assess viability. If a candidate was not mentioned as the likely winner in the first question, they were assigned a score of 0. If the candidate was mentioned on the first question, but then the respondent said they thought it would be a close race, the score for viability was 1. If the respondent answered the second question by saying they thought the candidate would win and it
would not be close, they were scored as a 2. Table 15 shows the distribution of this variable for each candidate at each time point.

Examination of the patterns for each candidate suggest that voters are updating their perceptions of how viable each candidate is across the nomination. The incumbent shows slight changes, while his challenger would appear to have never been widely perceived as a likely winner. Reagan shows what may well be the most dramatic shift, from almost 70% not mentioning him as a winner in January to 60% saying that he would win easily in June. Bush, like Kennedy, never really gets started. It would appear that there was a small subset that thought Bush would be a strong challenger when the year started, but the performance of Bush across the primary season deflated that assessment.

The second candidate-related variable is the overall evaluation of the candidate. This measure, described in earlier analysis, is simply the adjusted thermometer score. The adjustment changes the unit from undefined thermometer degrees to a measure of how many standard deviations above or below that respondent's mean evaluation of all political figures this particular candidate is placed. These adjusted scores have a range of roughly -2.70 to 2.70, and have an average standard deviation of about 1.0.

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85 Recall Bush actually quits the race in late May.

86 It is worth noting that 20% of the sample thought Bush would win in a close race, and that was with just over 20% actually recognizing Bush in the filter question. One possible read on this is that those who knew of Bush early on were strong Bush supporters, and they perhaps over-estimated his chances. These early Bush supporters appear to be an interesting group, worthy of additional study.
Table 15: Viability

<table>
<thead>
<tr>
<th>Candidate / Wave</th>
<th>Not Viable</th>
<th>Viable - Close Race</th>
<th>Viable - Not Close Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>23.4%</td>
<td>42.5%</td>
<td>34.1%</td>
</tr>
<tr>
<td>June</td>
<td>26.5</td>
<td>35.6</td>
<td>37.9</td>
</tr>
<tr>
<td>Kennedy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>86.5</td>
<td>12.3</td>
<td>1.3</td>
</tr>
<tr>
<td>June</td>
<td>95.9</td>
<td>3.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Reagan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>69.3</td>
<td>27.4</td>
<td>3.3</td>
</tr>
<tr>
<td>June</td>
<td>25.4</td>
<td>14.3</td>
<td>60.3</td>
</tr>
<tr>
<td>Bush</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>77.4</td>
<td>20.6</td>
<td>2.0</td>
</tr>
<tr>
<td>June</td>
<td>99.5</td>
<td>0.5</td>
<td>0.0</td>
</tr>
</tbody>
</table>
The final candidate-related variables are those reflecting emotional response to the various candidates. As the previous analysis clearly demonstrated, the 7 question battery can best be treated as indicators of a 2-dimensional solution. The factor scores from the confirmatory factor analysis in the previous chapter were saved and used in this analysis. The general range of the scores is 0.6 to 5.2, with a standard deviation averaging about 1.6.

Affect in Simple Models

Consideration of the literature reviewed in the earlier chapter suggests that a simple model of candidate evaluation would contain some measure of respondent characteristics and some measure of candidate characteristics. To recap the previous section, the general model used here includes the following as respondent characteristics: partisanship, ideology, and issue scores. The candidate characteristic terms include viability and evaluation.

One of the continuing threads of discussion in the literature involves the degree to which perceptions of candidates are comparative. Are they comparative in the elements (compare partisanship, ideology and so forth for each candidate) or comparative in the sum (evaluations generated for each candidate, and then the overall evaluations are compared)? Numerous examples of each can be found, yet no clear theoretical rational exists for either approach. A model that is comparative in the elements is more susceptible to problems with projection, while a model that treats the process as comparative in the sum may well omit a perceptual error that leads a voter to
behave in a fashion that would not make sense without considering their perception of
the candidates. In the context of the primaries, this discussion is even more difficult. If
the model is comparative in the parts, what is the basis for comparison? Most models
that are done this way are based on general election data, where the comparison is
obvious. In a multi-candidate field, it is never clear how the process should be
modeled. Is it comparison to the front-runner? If so, is it the objective front-runner or
is it the respondent's assessment of front-runner status? How frequently is the
comparison updated? How is a favorable candidate with low levels of viability
compared to a candidate to which the respondent is indifferent but has a higher level of
viability? While some of these questions flirt issues of strategic and sophisticated
voting, they are fundamentally different and, unfortunately, lacking in clear answer.

Given this difficulty, as well as the lack of evidence that person perception is
fundamentally comparative, the decision was made to treat evaluation as the product of
a process that is not comparative in the parts. It is assumed the voters evaluate each
candidate independent of the other candidates in the field. Then, once these evaluations
are reached, the voters engage in a process of selection on the basis of these
evaluations.

The first model tested can be described as a simple, general model without any
affective terms. In this model, overall evaluation of the candidate is treated as a
function of domestic and foreign issue scores, viability, ideology, and partisanship.
There are no reciprocal links or interactive terms, nor is there a dynamic element to the
model. The equation was estimated for each of the four major candidates using both
January and June data. The results are shown in Table 16.

Considered as a set, these five variables do a reasonable job of accounting for the variance in the dependent variables. In the January wave, between 20 and 30% of the variance is accounted for in each equation, with the standard error of the regression averaging just over 0.8. When considering the June data, the ability of the model to account for the variance decreases and the average standard error of the equation increases slightly. Even so, the results are not unacceptable.

Turing first to those variables that describe the respondent, it is clear that each has at least some influence. In the January wave, one or both of the issue terms is significant for three of the four candidates (failing only for Bush). Increasing scores on the Domestic Issues score were associated with increasingly positive evaluations of Carter and Kennedy, while the same change was associated with a decreased evaluation of Reagan. Increasing values on the International Issues score were associated with decreased evaluations of Kennedy and increasing evaluations of Reagan. In the June wave, neither issue works for Carter, but every other candidate has one issue variable reach significance. For Kennedy, increased values on the Domestic Issues score are associated with increased evaluation, while for Bush the same change is associated with a decreased evaluation. Only Reagan has a significant International Issues term in June, signed the same as it was in January.

Looking at the traditional terms of partisanship and ideology, it is clear that these are strong forces. Partisanship is significant at both time points for every candidate, and is signed in the direction that would be expected. Ideology is significant
**Table 16: Basic Equation for Evaluation - Excluding Affect*  

January**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.54 (3.34)</td>
<td>0.42 (2.42)</td>
<td>-1.07 (-7.16)</td>
<td>0.02 (0.13)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>0.10 (2.28)</td>
<td>0.15 (3.02)</td>
<td>-0.16 (-3.92)</td>
<td>-0.09 (-1.64)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.03 (-0.81)</td>
<td>-0.17 (-3.59)</td>
<td>0.13 (3.14)</td>
<td>0.00 (0.01)</td>
</tr>
<tr>
<td>Viability</td>
<td>0.46 (8.07)</td>
<td>1.00 (7.34)</td>
<td>0.36 (5.12)</td>
<td>0.56 (6.12)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.04 (-1.17)</td>
<td>-0.12 (-3.02)</td>
<td>0.19 (5.77)</td>
<td>0.05 (1.13)</td>
</tr>
<tr>
<td>Partisanship</td>
<td>-0.13 (-5.73)</td>
<td>-0.11 (-4.27)</td>
<td>0.08 (3.64)</td>
<td>0.06 (2.21)</td>
</tr>
<tr>
<td>n</td>
<td>441</td>
<td>438</td>
<td>418</td>
<td>212</td>
</tr>
<tr>
<td>R²/St. Error</td>
<td>0.20/0.84</td>
<td>0.27/0.94</td>
<td>0.29/0.78</td>
<td>0.23/0.72</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.73 (3.27)</td>
<td>0.34 (1.72)</td>
<td>-1.01 (-3.96)</td>
<td>0.28 (1.59)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>0.03 (0.52)</td>
<td>0.21 (3.79)</td>
<td>-0.05 (-0.96)</td>
<td>-0.10 (-2.14)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.09 (-1.73)</td>
<td>-0.06 (-1.27)</td>
<td>0.17 (3.43)</td>
<td>-0.01 (-0.05)</td>
</tr>
<tr>
<td>Viability</td>
<td>0.15 (1.77)</td>
<td>1.01 (4.18)</td>
<td>0.04 (0.39)</td>
<td>-0.48 (-0.94)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.06 (-1.37)</td>
<td>-0.06 (-1.41)</td>
<td>0.22 (5.26)</td>
<td>-0.01 (-0.37)</td>
</tr>
<tr>
<td>Partisanship</td>
<td>-0.18 (-6.65)</td>
<td>-0.15 (-5.46)</td>
<td>0.14 (5.32)</td>
<td>0.08 (3.47)</td>
</tr>
<tr>
<td>n</td>
<td>368</td>
<td>365</td>
<td>357</td>
<td>253</td>
</tr>
<tr>
<td>R²/St. Error</td>
<td>0.18/0.99</td>
<td>0.22/0.99</td>
<td>0.27/0.90</td>
<td>0.10/0.70</td>
</tr>
</tbody>
</table>

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
for Kennedy and Reagan in the January wave, which is not surprising given that these are the two most ideological candidates. Carter (who was full of internal ideological conflicts) and Bush (who was not well known) offered much less distinct ideological profiles, and therefore were likely to draw from a more heterogeneous ideological profile. In the June data, ideology works only for Reagan.

The last term, viability, is the only term in the model that includes the respondent's sense of the candidate. Using the coding described above, the viability measure was significant for every candidate in the January data. The sign was as expected, with increasingly high levels of viability, evaluations increased. In the June wave, viability is significant only for Kennedy. The exact interpretation of what role viability may play is not certain. The way in which it is tested here, viability is influencing evaluation. This would fit with the bandwagon interpretation in which voters are drawn to a candidate out of the desire to support a winner (see Bartels 1988). It is possible that assessments of viability are driven by other forces. I will return to this point later in the analysis.

The next version of the model to be tested is that including affect as one of the independent variables. In this case, the factor scores for positive and negative affective response to each candidate were entered in the appropriate equation. The emotional response terms were entered as merely another set of explanatory variables. At this point, there was no attempt to allow for reciprocal relationships or anything more complex that the simple relationship modeled above. The results of this analysis are shown in Table 17.
Table 17: Basic Equation for Evaluation - Including Affect

<table>
<thead>
<tr>
<th>January</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.32 (1.71)</td>
<td>0.00 (0.18)</td>
<td>-0.76 (-4.90)</td>
<td>-0.06 (0.29)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>0.02 (0.55)</td>
<td>0.04 (0.95)</td>
<td>-0.11 (-3.16)</td>
<td>-0.06 (-1.07)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.01 (-0.27)</td>
<td>-0.07 (-1.85)</td>
<td>0.06 (1.69)</td>
<td>0.01 (0.21)</td>
</tr>
<tr>
<td>Viability</td>
<td>0.31 (6.30)</td>
<td>0.26 (2.32)</td>
<td>0.22 (3.70)</td>
<td>0.46 (5.53)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.02 (-0.67)</td>
<td>-0.06 (-1.93)</td>
<td>0.12 (4.40)</td>
<td>0.06 (1.38)</td>
</tr>
<tr>
<td>Partisanship</td>
<td>-0.08 (-4.25)</td>
<td>-0.04 (-1.84)</td>
<td>0.05 (2.57)</td>
<td>0.02 (0.96)</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>0.20 (8.01)</td>
<td>0.32 (11.93)</td>
<td>0.20 (8.90)</td>
<td>0.15 (4.94)</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>-0.17 (-6.99)</td>
<td>-0.20 (-7.23)</td>
<td>-0.16 (-6.39)</td>
<td>-0.21 (-3.30)</td>
</tr>
<tr>
<td>n</td>
<td>438</td>
<td>432</td>
<td>413</td>
<td>209</td>
</tr>
<tr>
<td>R² / St. Error</td>
<td>0.44 / 0.71</td>
<td>0.60 / 0.71</td>
<td>0.52 / 0.65</td>
<td>0.37 / 0.66</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>June</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.65 (2.79)</td>
<td>-0.10 (-0.50)</td>
<td>-0.31 (-1.32)</td>
<td>-0.37 (-2.05)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>-0.00 (0.13)</td>
<td>0.08 (1.82)</td>
<td>-0.07 (-1.72)</td>
<td>-0.07 (-1.69)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.07 (-1.76)</td>
<td>0.02 (0.45)</td>
<td>0.09 (2.08)</td>
<td>-0.05 (-1.29)</td>
</tr>
<tr>
<td>Viability</td>
<td>0.05 (0.84)</td>
<td>0.29 (1.55)</td>
<td>0.14 (1.72)</td>
<td>-0.81 (-1.82)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.05 (-1.39)</td>
<td>0.04 (1.18)</td>
<td>0.12 (3.52)</td>
<td>0.04 (1.07)</td>
</tr>
<tr>
<td>Partisanship</td>
<td>-0.09 (-4.18)</td>
<td>-0.10 (-4.51)</td>
<td>0.04 (1.60)</td>
<td>0.04 (2.02)</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>0.24 (9.09)</td>
<td>0.23 (9.98)</td>
<td>0.15 (6.07)</td>
<td>0.20 (9.18)</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>-0.25 (8.96)</td>
<td>-0.23 (-7.48)</td>
<td>-0.29 (-9.77)</td>
<td>-0.08 (-1.98)</td>
</tr>
<tr>
<td>n</td>
<td>366</td>
<td>365</td>
<td>365</td>
<td>251</td>
</tr>
<tr>
<td>R² / St. Error</td>
<td>0.50 / 0.77</td>
<td>0.56 / 0.75</td>
<td>0.53 / 0.73</td>
<td>0.34 / 0.61</td>
</tr>
</tbody>
</table>

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
Consider first the overall fit of the equations. For every candidate in the January wave, the standard error of the regression decreases somewhat from the value obtained with emotions left out of the equation, indicating that the addition of the affective terms increases our ability to account for the variance in evaluation. When looking at the June data, the same general pattern of reduction can be seen.

How do the affective terms perform in the analysis? The short answer is very well, indeed. In the January equations, both emotional response terms are statistically significant for all the candidates. Increasing positive affect is associated with increasingly positive evaluations, with a one unit change in positive affect being associated with an average increase in evaluation of about 0.22 units. Increasing negative affect is associated with decreasing evaluations, where a one unit change in negative affect is associated with an average decrease of 0.19 units in evaluation. In the June equations, all 8 of the emotional response terms are significant again. A one unit change in positive affect in June averages a 0.20 unit change in evaluation. A one unit increase in negative affect in June is associated with approximately a 0.21 change in evaluation. Both of these numbers represent a similarity in the effect in June to that found in January.

Of course, one of the first questions that must be asked is that concerning the influence of the emotional terms. Does the power of these terms come at the cost of the other terms? The first cut answer appears to be a mixed response. Consider the case of the two issue terms. In the models without affect, 5 of the 8 issue terms were significant in January. Once affect is added to the equation, this number drops to 1 of 8.
Looking to the June data, the number of significant issue terms again drops to 1. There would appear to be, then, a pattern of affect displacing the issue terms. The interesting aspect of this is that these are not issue proximities, but rather absolute issue placements of only the respondent. The fact that the affective measures displace some of the explanatory power of these terms indicates that there is a relationship between voters issue stands and their feelings about the candidates. The nature of the linkage is not clear at this point, however.

Turning to partisanship, the addition of the affective terms to the January equations had the effect of knocking the influence of party in the Kennedy and Bush models to insignificance. In the June data, only the Reagan equation does not have a significant partisanship term. The effect of partisanship decreases once emotional response is controlled for in both the January and June data. For example, in January, moving one notch up on the partisan scale reduced the evaluation of Carter 0.13 units. Once emotional response was controlled for, the effect of the same change in partisanship was associated with a decrease of 0.08. A similar (albeit weaker) pattern may be seen when considering the impact of ideology. While ideology was significant for only 2 candidates in January when affect was not included, the addition of the emotion terms knocks out one of them (Kennedy), and slightly reduces the impact of ideology for Reagan. In June, ideology was significant only for Reagan without affect, and this remains true once affect has been added. The effect of ideology was decreased somewhat in this case, too.
When looking at the influence of perceived viability on evaluation, the effect of adding emotion to the equation differs, depending on which way is considered. In January, viability was significant for all 4 candidates when affect was not in the equation. Once affect is controlled for, all four equations continue to have significant viability terms. The size of the effect decreases as well, with the decrease producing an effect that averages about two-thirds of the previous effect. Looking at the June data, only one equation had a significant viability term without affect. Adding affect to the equation took away the influence of viability in June.

There appears to be a trend of affect decreasing the importance of other terms when it is added to an equation. The consistency of this effect is somewhat surprising, given that these are not issue or ideological proximities. Does this mean that emotions are doing little more than capturing these other elements, but in a somewhat different flavor? Probably not. It is worth noting that the addition of the affective terms did not wipe out the effect of all the other terms. Every other term is significant in at least one of the 8 equations. If affect were representing the same core forces as these terms (but in summary form), then it would not be surprising to see all the terms fall out of the equation. The fact that this does not happen suggests that there is some unique (but somewhat overlapping) explanatory power here. This fits with some of the earlier work on affect (see Abelson et al. 1982).

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87 In some of the Bush equations for evaluation in June that include affect, the viability term could not be entered in the equation. By June, this variable essentially becomes a constant for the sample being studied here.
One other concern that is raised by some is the idea that emotional response is a tautology with overall evaluation. Indeed, this is what is implied by so many of the models in the field to date. While a relationship between evaluation and emotion would certainly be expected, it is assumed that it would be significantly less than perfect. This can be tested in a couple of different ways. Evaluation can be regressed on each of the individual affective terms to determine how much of the variance each would account for by itself. Similarly, the core variables used in the analysis above can be used as predictors of the emotional terms. If the model of emotional response looks largely similar to the model for evaluation, additional concern will be warranted. Finally, in a direct test of the proposition that measuring emotional response is the same as measuring evaluation, overall evaluation can be regressed on the differenced emotional response terms. In this analysis, each of these general approaches was used.

Each of the adjusted evaluations was regressed on each of the affective scores. For example, evaluation of Kennedy was regressed on negative emotional response to Kennedy, then in a separate equation it was regressed on positive emotional response. In the 16 equations (4 candidates x 2 time points x 2 affective variables), the emotional response term is significant in every equation. This is not surprising, given the general relationship between emotion and evaluation. The overall performance of the equations, however, was not so high as to suggest that each emotional response term is
capturing the same elements of the process as is overall evaluation.**

When each of the emotional response terms was regressed on the core set of predictors (partisanship, ideology, viability, and issues), the results indicate that, while there is a similarity between emotions and evaluation, they are far from the same thing. The detailed results, which are not presented here, show no consistent patterns with respect to the role of any particular variable in predicting positive or negative emotions. The overall fit of the models was weak, with an average of less than 10% of the variance in each emotional response term explained by the core variables. The average standard error of the regression was just over 1.5.

Finally, the idea that evaluation is merely the net balance of emotional response was tested. Overall evaluation was regressed on the differenced (positive - negative) emotional response measures. If the variance explained in the dependent variables is high, then the concern over an evaluation / emotional response tautology is difficult to dismiss. Additionally, if the amount of variance explained by the emotional terms alone rivals that found in Table 17, it offers some support for the interpretation of emotional response being virtually identical to evaluation. When overall evaluation is regressed on the differenced thermometers, the net emotional balance term is always significant. However, the ability of this term to account for the variance in the evaluative terms is well below that of the model featuring affect and the core variables. The average proportion of the variance explained is 0.37, in contrast to 0.48 in Table 17.

** The average proportion of the variance explained in the evaluation terms was between 0.1 and 0.2.
Clearly, there is some relationship between emotional response and evaluation. This is not a trivial relationship. The above tests represent attempts to distinguish one from the other. In that sense, the tests succeed, for the differences between emotion and evaluation are visible. It should be noted, however, that the validity of these tests is related to the validity of a recursive specification in the equation. Later analysis will look into the non-recursive aspect of the relationship.

The last simple model of evaluation to be discussed is that using the core variables mentioned above, but using a lagged measure of affective response. In the case of the 1980 data, this means that June evaluations were regressed on June measures of issues, viability, ideology, and partisanship, but using January measures of emotional response. The results, shown in Table 18, indicate that the lagged measures work well.

When the lagged values of emotional response are used in the model, the other core terms tend to be knocked out of the equation. In the case of Carter, both affective terms are significant, with the only other significant term being partisanship. The Kennedy equation has significant emotion terms, as well as partisanship and viability. In the case of Reagan, International Issues and Ideology are also significant, as are both affective terms and partisanship. For Bush, the only significant term in the model is the January measure of positive affect. The power of these models is slightly less than the results based on all June measures. The standard error of the regression for this set of equations averages about 0.80 (compared to an average of 0.71 in the models using June emotional response).
Table 18: Basic Equation for Evaluation - Including Lagged Affect*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0.87)</td>
<td>(1.91)</td>
<td>(-2.03)</td>
<td>(-1.24)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>-0.26</td>
<td>0.09</td>
<td>-1.42</td>
<td>-1.54</td>
</tr>
<tr>
<td>International Issues</td>
<td>-1.35</td>
<td>-0.12</td>
<td>2.91</td>
<td>-0.89</td>
</tr>
<tr>
<td>Viability</td>
<td>1.40</td>
<td>2.00</td>
<td>0.33</td>
<td>na</td>
</tr>
<tr>
<td>Ideology</td>
<td>-1.13</td>
<td>0.52</td>
<td>3.47</td>
<td>1.38</td>
</tr>
<tr>
<td>Partisanship</td>
<td>4.92</td>
<td>2.52</td>
<td>3.50</td>
<td>1.25</td>
</tr>
<tr>
<td>Lagged Positive Affect</td>
<td>7.16</td>
<td>9.64</td>
<td>4.43</td>
<td>6.09</td>
</tr>
<tr>
<td>Lagged Negative Affect</td>
<td>5.44</td>
<td>5.61</td>
<td>4.26</td>
<td>-1.08</td>
</tr>
<tr>
<td>n</td>
<td>364</td>
<td>353</td>
<td>335</td>
<td>161</td>
</tr>
<tr>
<td>R² / St. Error</td>
<td>0.39 / 0.86</td>
<td>0.54 / 0.78</td>
<td>0.39 / 0.85</td>
<td>0.30 / 0.62</td>
</tr>
</tbody>
</table>

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
The interesting issue in this case is that the models using January observations on emotional response to estimate January evaluations work reasonably well. Limiting the process to this simple model would suggest that early emotional response is playing some role in the development of later evaluation. This could be through a number of different psychological mechanisms, ranging from selective perception to selective retention to some process of using emotions to reduce the cognitive complexity of the situation. As the discussion by Fiske and Pavelchak suggests, the primary season could be a place where categorical type emotional responses may be likely. Perhaps the early emotional response is then echoed throughout the system, exerting a significant influence across time. Clearly, any answer on this will require something more than the simple models tested so far.

**Affect in More Complex Models of Evaluation**

The number of different strategies that may be pursued as a more complex approach is developed are almost without limit. One strategy would be to pursue methodological security, giving up a bit of theoretical soundness if need be. Another strategy would be to pursue the "true" process at all cost, with the goal of creating a perfect veridical map of the political evaluation process and the role that affect play in it. This approach would involve some significant methodological difficulty, especially when working with survey data. Indeed, the difficulties could be so great as to prohibit the analysis from making any conclusions. No clear answer exists to the question of what strategy is best to pursue. In an area with limited theory and even less empirical
work, some argument can be made for each of the numerous approaches. In the end, this portion of the analysis will continue the incremental step approach of model building. The first few equations offered are only somewhat more complex than those in the previous section, while the last set of equations represent a more complex world.

One of the key assumptions in the results presented above is that all individuals use affect in the same way. The effect is emotional response on evaluation is hypothesized to be the same for each person, regardless of any other potentially relevant characteristics. While this is not bad as a starting point, it is not a position that would be easy to defend. Individuals come to the task of political perception and evaluation with different skills, different backgrounds, and different goals. These are sure to influence the way in which the individual seeks out and processes information, as well as the manner in which they can or wish to rely on emotions as cues.

The next portion of the analysis relaxes this assumption somewhat. It is difficult to determine exactly what different variables should be used to separate the sample for this sort of test, but a short list of candidates can be developed. Based on some of the social psychology literature, it would seem that information and interest can influence the manner in which people apply various cognitive processes. On those grounds, it may be useful to look at the sample in terms of low education / high education, low political information / high political information, and low political interest / high political interest. Also, on the grounds that extreme partisans and extreme ideologues may view the world through a somewhat different lens, it maybe useful to consider those in the middle of the road versus those on the extremes. In this
context, that means independents versus partisans, and moderates versus those at the ideological end points. In the analysis that follows, these five groupings will be examined to determine if the importance of emotional response differs in each. The model presented above will serve as the baseline for this analysis.

The first element to be examined is the distinction between high and low education levels in the sample. The respondents were divided on the basis of having completed high school, which split the sample roughly in half. A dummy variable was created for those in the low education classification, on the grounds that it would be the less educated who may be hypothesized to rely on emotions more than those with higher levels of education. The model estimated is basically the same as that used in Table 17, except for the addition of an interactive term allowing emotional response to have a different impact for the low education group.\(^8\)\(^9\) The low education variable was introduced as a slope dummy variable, since the hypothesis is that the effect of emotions may differ by education level, not that those with low education levels have a fundamentally different level of evaluation of candidates than do those with higher levels of education. If the coefficient for the interaction term is significantly different from zero, it indicates that respondents with lower levels of education have a different relationship between emotions and evaluation than do the rest of the sample. The exact difference can be found by adding the coefficient of the interaction to the coefficient for

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\(^8\)\(^9\) The results presented in Tables 19-21 are reported without the main effect terms of the interaction being explicitly included, as they are of no theoretical interest. In each case, however, the model was also estimated with the main effect included, which produced no significant changes in the model. Therefore, they are not reported here.
the relevant emotional term. The total would represent the influence of that emotional term for those in the low education category.

The results of the analysis on education and the use of emotional response are shown in Table 19. Using the January data, the results look little different from those shown previously. None of the interactions are significant in January. The results for the other terms in the models looks about as it did in the earlier analysis. The June data present a slightly different picture. For Carter and Kennedy, the interactions are insignificant, and the other terms appear to be largely unchanged by the addition of the education terms. In the case of Reagan, however, both of the education interactions are significant. Interestingly, both work to reduce the effect of emotional response among those in the lower education grouping. The effect of positive emotional response, which is 0.18, is reduced by 0.08 for those with lower levels of education. The effect of negative emotional response, -0.32, is reduced to -0.19 for the low education group. The remainder of the results look much like those from the earlier analysis, except for the now insignificant coefficient associated with international issues. Similar results are seen in the case of Bush. In this case, only the interaction between education and positive emotional response is significant. The coefficient for positive affect, 0.22, is reduced 0.14 for those with low levels of education. The other interaction, while not quite significant, appears to also be one of moderating influence.

The hypothesis tested here was that respondents with lower levels of education would be more likely to rely on emotional response. The results indicate that, at least under this specification, this is not the case. Indeed, when there are significant effects
### Table 19: Basic Equation for Evaluation - Including Education Interaction*

#### January

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.032 (1.74)</td>
<td>0.01 (0.05)</td>
<td>-0.77 (-4.96)</td>
<td>-0.05 (-0.29)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>0.02 (0.43)</td>
<td>0.03 (0.81)</td>
<td>-0.11 (-3.20)</td>
<td>-0.03 (-0.67)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.01 (-0.38)</td>
<td>-0.07 (-2.05)</td>
<td>0.05 (1.47)</td>
<td>0.01 (0.20)</td>
</tr>
<tr>
<td>Viability</td>
<td>0.32 (6.36)</td>
<td>0.26 (2.35)</td>
<td>0.23 (1.78)</td>
<td>0.45 (5.26)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.02 (-0.79)</td>
<td>-0.06 (-2.11)</td>
<td>0.12 (4.29)</td>
<td>0.07 (1.81)</td>
</tr>
<tr>
<td>Partisanship</td>
<td>-0.08 (-4.21)</td>
<td>-0.03 (-1.78)</td>
<td>0.05 (2.68)</td>
<td>0.02 (0.83)</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>0.19 (7.51)</td>
<td>0.31 (10.45)</td>
<td>0.21 (8.71)</td>
<td>0.14 (4.58)</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>-0.17 (-6.46)</td>
<td>-0.20 (-6.85)</td>
<td>-0.17 (-6.55)</td>
<td>-0.20 (-2.99)</td>
</tr>
<tr>
<td>Educ.* Pos. Affect</td>
<td>0.01 (0.30)</td>
<td>0.03 (0.94)</td>
<td>-0.03 (-0.98)</td>
<td>-0.01 (-0.31)</td>
</tr>
<tr>
<td>Educ.* Neg. Affect</td>
<td>0.02 (0.72)</td>
<td>0.01 (0.45)</td>
<td>0.06 (1.48)</td>
<td>-0.19 (-1.68)</td>
</tr>
</tbody>
</table>

| n                    | 438          | 431          | 413          | 209         |
| R² / St. Error       | 0.44 / 0.71  | 0.60 / 0.71  | 0.52 / 0.65  | 0.39 / 0.65 |

#### June

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>constant</td>
<td>0.60 (2.58)</td>
<td>-0.12 (-0.56)</td>
<td>-0.35 (-1.48)</td>
<td>-0.39 (-2.14)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>-0.02 (-0.43)</td>
<td>0.09 (2.12)</td>
<td>-0.07 (-1.53)</td>
<td>-0.06 (-1.34)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.08 (-1.91)</td>
<td>0.02 (0.52)</td>
<td>0.07 (1.60)</td>
<td>-0.06 (-1.47)</td>
</tr>
<tr>
<td>Viability</td>
<td>0.07 (1.12)</td>
<td>0.33 (1.77)</td>
<td>0.15 (1.78)</td>
<td>-0.75 (-1.69)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.05 (-1.51)</td>
<td>0.05 (1.34)</td>
<td>0.12 (3.55)</td>
<td>0.04 (1.07)</td>
</tr>
<tr>
<td>Partisanship</td>
<td>-0.02 (-4.08)</td>
<td>-0.10 (-4.49)</td>
<td>0.04 (1.68)</td>
<td>0.04 (2.12)</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>0.23 (8.34)</td>
<td>0.25 (9.71)</td>
<td>0.18 (6.81)</td>
<td>0.22 (9.48)</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>-0.26 (-8.37)</td>
<td>-0.23 (-7.33)</td>
<td>-0.32 (-10.38)</td>
<td>-0.10 (-2.46)</td>
</tr>
<tr>
<td>Educ.* Pos. Affect</td>
<td>0.03 (0.72)</td>
<td>-0.04 (-1.41)</td>
<td>-0.08 (-2.82)</td>
<td>-0.08 (-2.41)</td>
</tr>
<tr>
<td>Educ.* Neg. Affect</td>
<td>0.03 (0.92)</td>
<td>-0.00 (-0.05)</td>
<td>0.13 (2.79)</td>
<td>0.11 (1.46)</td>
</tr>
</tbody>
</table>

| n                    | 366          | 365          | 355          | 251         |
| R² / St. Error       | 0.51 / 0.77  | 0.56 / 0.75  | 0.54 / 0.72  | 0.36 / 0.61 |

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
on the interaction, they serve to reduce the importance of emotions for those with less education. While it is too early to speculate to any significant degree, it may be that those with lower levels of education have a significant amount of random disturbance in the way they perceive and react to the political world. If this is the case, the clear effect seen for higher levels of education may be lost in noise for the less educated. Further analysis will be required to add understanding and confidence in these results.

The second set of interactions to be tested were those dealing with the level of political information held by the respondent. The hypothesis here is that those with lower levels of information may be relying on emotions to guide their behavior and perceptions. The method of ascertaining the respondents level of information was to rely on the interviewers' coding of this. The question asked the interviewer to place the respondent on a 5 point scale, with the end points being very high and very low. Roughly 40% of the respondents were coded as very high or fairly high. The remaining 60% were coded as being in the lower information category. The low information dummy variable was entered in the equation just as the low education variable was in the previous section.

The results, shown in Table 20, indicate that, in the majority of cases, the information interaction did not significantly alter the effect of emotional response on evaluation. The January results for Carter and Kennedy look basically the same with and without the new interactions. For Reagan, the interaction between low information and positive affect was significant. Again, just as in the case of low education, the effect is to reduce the impact of emotions for the low information individuals. In this
Table 20: Basic Equation for Evaluation - Including Information Interaction*

<table>
<thead>
<tr>
<th>January</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.28 (1.51)</td>
<td>0.02 (0.43)</td>
<td>-0.01 (-0.15)</td>
<td>0.32 (6.43)</td>
</tr>
<tr>
<td></td>
<td>0.01 (0.05)</td>
<td>0.04 (1.05)</td>
<td>-0.07 (-1.96)</td>
<td>0.24 (2.19)</td>
</tr>
<tr>
<td></td>
<td>-0.69 (-4.42)</td>
<td>-0.11 (-2.97)</td>
<td>0.05 (1.50)</td>
<td>0.22 (3.72)</td>
</tr>
<tr>
<td></td>
<td>0.12 (0.66)</td>
<td>-0.04 (-0.84)</td>
<td>-0.03 (-0.57)</td>
<td>0.39 (4.61)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Variable</td>
<td>Carter</td>
<td>Kennedy</td>
<td>Reagan</td>
<td>Bush</td>
</tr>
<tr>
<td></td>
<td>0.63 (2.67)</td>
<td>-0.07 (-0.35)</td>
<td>-0.22 (-0.91)</td>
<td>-0.31 (-1.70)</td>
</tr>
<tr>
<td></td>
<td>-0.01 (-0.10)</td>
<td>0.09 (1.98)</td>
<td>-0.06 (-1.32)</td>
<td>-0.07 (-1.58)</td>
</tr>
<tr>
<td></td>
<td>-0.08 (-1.81)</td>
<td>0.02 (0.51)</td>
<td>0.09 (2.08)</td>
<td>-0.04 (-1.06)</td>
</tr>
<tr>
<td></td>
<td>0.06 (0.90)</td>
<td>0.31 (1.64)</td>
<td>0.12 (1.36)</td>
<td>-0.74 (-1.68)</td>
</tr>
<tr>
<td></td>
<td>-0.05 (-1.36)</td>
<td>0.04 (1.12)</td>
<td>0.12 (3.35)</td>
<td>0.03 (0.78)</td>
</tr>
<tr>
<td></td>
<td>-0.02 (-4.07)</td>
<td>-0.10 (-4.62)</td>
<td>0.03 (1.38)</td>
<td>0.04 (1.84)</td>
</tr>
<tr>
<td></td>
<td>0.24 (8.10)</td>
<td>0.24 (8.82)</td>
<td>0.17 (6.30)</td>
<td>0.21 (9.19)</td>
</tr>
<tr>
<td></td>
<td>-0.26 (-8.00)</td>
<td>-0.22 (-6.82)</td>
<td>-0.30 (-9.50)</td>
<td>-0.08 (-2.00)</td>
</tr>
<tr>
<td></td>
<td>0.01 (0.31)</td>
<td>-0.01 (-0.28)</td>
<td>-0.05 (-1.84)</td>
<td>-0.06 (-1.99)</td>
</tr>
<tr>
<td></td>
<td>0.01 (0.21)</td>
<td>-0.03 (-0.93)</td>
<td>0.02 (0.53)</td>
<td>0.02 (0.35)</td>
</tr>
<tr>
<td></td>
<td>366</td>
<td>365</td>
<td>355</td>
<td>251</td>
</tr>
<tr>
<td></td>
<td>0.71 / 0.50</td>
<td>0.56 / 0.75</td>
<td>0.53 / 0.73</td>
<td>0.36 / 0.61</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
case, the reduction is 0.07 (from 0.23). Thus, for respondents coded as having an 
average amount of political information or less, the effect of positive emotional 
response to Reagan on evaluation of Reagan is reduced. A similar (and somewhat more 
sizable) effect is seen in the Bush equation. Looking to the June data, only the 
interaction between low information and positive emotional response to Bush is 
significant.

The hypothesis that individuals with lower levels of information would rely on 
emotions more than those with significant levels of information is not supported in this 
specification. Just as in the case of lower education level respondents, the effect of the 
interaction serves to reduce the impact of emotions rather than to enhance it. It is 
interesting to note that when this interaction is significant, it is only significant for the 
Republican candidates. No clear explanation exists for this pattern, but the same thing 
was seen with the education interactions.

The third class of interactions tested are those involving the respondents' interest 
in the campaign. The general idea behind this inquiry is that those individuals with 
little interest in the campaign may rely on emotions as guide more than those who 
express significant interest in the events of the political world around them. A dummy 
variable for interest was created, placing those respondents who described themselves 
as only somewhat interested or not much interested in the campaign in one group, and 
the high interest respondents in the baseline group. The interest interaction term was 
incorporated in the model just as the previous interactions have been.
The results indicate that the interest interactions do not work particularly well (see Table 21). Only in 2 instances of a possible 16 do the interaction terms reach significance. For Carter in January, the effect of low interest / negative affect interaction is one of reducing the effect of negative affect on evaluation by about one-third. None of the other January interactions are close to being significant, nor do any of the results change dramatically. In June, the low interest / negative affect interaction is significant in the Reagan equation. Interestingly, the sign is opposite of what the pattern has been so far. That is, among those respondents with low interest in the campaign, the effect of negative emotional response is greater than it is for the rest of the sample. None of the other June results are significantly different from those presented earlier.

The hypothesis explored here, that respondents with lower levels of information would rely more on emotional response, is not supported. To the degree that there is any effect of low interest, it is split. Only in one case of 16 is the expected effect found.

In short, the expected relations between the importance of emotional response and various measures of intellectual ability or interest are not found. If there is any relationship to speak of, it actually appears to run counter to these hypothesized relationships. Those with lower levels of education, lower levels of information, and to some degree those with less interest in the campaign are relying less on emotional response. Perhaps this is similar to the work that found that only the well-educated could apply abstract schema to a task (see for example, Hamill, Lodge, and Blake, 1985). Only further work will clarify this question.
Table 21: Basic Equation for Evaluation - Including Interest Interaction*

<table>
<thead>
<tr>
<th>January</th>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>constant</td>
<td>0.29 (1.57)</td>
<td>0.02 (0.09)</td>
<td>-0.77 (-4.93)</td>
<td>0.06 (0.27)</td>
</tr>
<tr>
<td></td>
<td>Domestic Issues</td>
<td>0.02 (0.48)</td>
<td>0.04 (0.96)</td>
<td>-0.11 (-3.08)</td>
<td>-0.07 (-1.25)</td>
</tr>
<tr>
<td></td>
<td>International Issues</td>
<td>-0.01 (-0.15)</td>
<td>-0.07 (-1.90)</td>
<td>0.05 (1.58)</td>
<td>0.01 (0.23)</td>
</tr>
<tr>
<td></td>
<td>Viability</td>
<td>0.32 (6.53)</td>
<td>0.26 (2.33)</td>
<td>0.22 (3.74)</td>
<td>0.45 (5.11)</td>
</tr>
<tr>
<td></td>
<td>Ideology</td>
<td>-0.01 (-0.40)</td>
<td>-0.06 (-1.98)</td>
<td>0.12 (4.40)</td>
<td>0.03 (1.10)</td>
</tr>
<tr>
<td></td>
<td>Partisanship</td>
<td>-0.09 (-4.55)</td>
<td>-0.03 (-1.78)</td>
<td>0.05 (2.59)</td>
<td>0.03 (0.96)</td>
</tr>
<tr>
<td></td>
<td>Positive Affect</td>
<td>0.22 (7.91)</td>
<td>0.32 (10.27)</td>
<td>0.19 (7.34)</td>
<td>0.14 (4.12)</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-0.21 (-7.31)</td>
<td>-0.20 (-6.69)</td>
<td>-0.15 (-5.01)</td>
<td>-0.20 (-3.09)</td>
</tr>
<tr>
<td></td>
<td>Interest* Pos. Affect</td>
<td>-0.04 (-1.56)</td>
<td>-0.01 (-0.20)</td>
<td>0.03 (1.15)</td>
<td>0.00 (0.07)</td>
</tr>
<tr>
<td></td>
<td>Interest* Neg. Affect</td>
<td>0.07 (2.51)</td>
<td>-0.01 (-0.29)</td>
<td>-0.03 (-1.00)</td>
<td>-0.12 (-1.03)</td>
</tr>
<tr>
<td>R² / St. Error</td>
<td>0.45 / 0.70</td>
<td>0.60 / 0.71</td>
<td>0.52 / 0.65</td>
<td>0.38 / 0.66</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>June</th>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>constant</td>
<td>0.68 (2.90)</td>
<td>-0.09 (-0.45)</td>
<td>-0.26 (-1.10)</td>
<td>-0.37 (-2.03)</td>
</tr>
<tr>
<td></td>
<td>Domestic Issues</td>
<td>0.00 (0.08)</td>
<td>0.08 (1.82)</td>
<td>-0.07 (-1.75)</td>
<td>-0.07 (-1.64)</td>
</tr>
<tr>
<td></td>
<td>International Issues</td>
<td>-0.07 (-1.73)</td>
<td>0.02 (0.40)</td>
<td>0.08 (2.00)</td>
<td>-0.06 (-1.33)</td>
</tr>
<tr>
<td></td>
<td>Viability</td>
<td>0.05 (0.81)</td>
<td>0.29 (1.56)</td>
<td>0.15 (1.78)</td>
<td>-0.81 (-1.82)</td>
</tr>
<tr>
<td></td>
<td>Ideology</td>
<td>-0.06 (-1.55)</td>
<td>0.04 (1.14)</td>
<td>0.11 (3.27)</td>
<td>0.04 (1.04)</td>
</tr>
<tr>
<td></td>
<td>Partisanship</td>
<td>-0.02 (-4.10)</td>
<td>-0.02 (-4.49)</td>
<td>0.04 (1.65)</td>
<td>0.04 (1.99)</td>
</tr>
<tr>
<td></td>
<td>Positive Affect</td>
<td>0.23 (7.17)</td>
<td>0.24 (8.18)</td>
<td>0.14 (4.90)</td>
<td>0.21 (8.13)</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-0.24 (-7.23)</td>
<td>-0.23 (-6.73)</td>
<td>-0.25 (-7.60)</td>
<td>-0.08 (-2.01)</td>
</tr>
<tr>
<td></td>
<td>Interest* Pos. Affect</td>
<td>0.02 (0.70)</td>
<td>-0.01 (-0.20)</td>
<td>0.02 (0.61)</td>
<td>-0.02 (-0.53)</td>
</tr>
<tr>
<td></td>
<td>Interest* Neg. Affect</td>
<td>-0.04 (-1.22)</td>
<td>-0.01 (-0.26)</td>
<td>-0.09 (-2.58)</td>
<td>0.03 (0.41)</td>
</tr>
<tr>
<td>n</td>
<td>366</td>
<td>365</td>
<td>354</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>R² / St. Error</td>
<td>0.51 / 0.77</td>
<td>0.56 / 0.75</td>
<td>0.54 / 0.73</td>
<td>0.34 / 0.61</td>
<td></td>
</tr>
</tbody>
</table>

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
Two other interactions were examined with an eye to how those on the passionate edge of politics may differ from those more mainstream (or perhaps even out of stream). The first to be examined is that of independence. A dummy variable was created for those respondents opting to not identify themselves as feeling closer to either party (on the three point scale). This independence dummy variable was entered in the equation in an interaction with emotional response just as with the previous measures. One difference in this equation is that, rather than include the 7 point partisanship scale as a independent variable, a partisanship dummy was created for each respondent. It is coded 1 if the respondent is of the same party as the figure being evaluated, and 0 otherwise. For example, a respondent who described herself as Republican will have a partisanship dummy of 1 in the Reagan equation, but one of 0 in the Kennedy equation. Otherwise, all aspects of the equation remain the same.

The hypothesis for the independence interaction was that those not feeling close to a party may actually rely on emotions more than partisans, as they are lacking the information that a partisan can glean from simple partisan familiarity. The results, shown in Table 22, offer weak support for this idea. In the January data, one of the 8 interactions is significant (independence and negative affect in the Reagan equation). The effect is in the expected direction, in that those who think of themselves as independents were associated with 0.12 greater impact of negative emotions than were those who identified with one of the parties. In the other equations, no significant departures from the previous analysis were noted. Turning to the June data, again only
Table 22: Basic Equation for Evaluation - Including Political Independence Interaction*

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>constant</td>
<td>-0.09 (-0.45)</td>
<td>-0.17 (-0.90)</td>
<td>-0.74 (-4.86)</td>
<td>-0.03 (-0.15)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>0.02 (0.55)</td>
<td>0.04 (0.98)</td>
<td>-0.11 (-3.18)</td>
<td>-0.05 (-1.06)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.00 (-0.12)</td>
<td>-0.07 (-1.84)</td>
<td>0.05 (1.42)</td>
<td>0.02 (0.45)</td>
</tr>
<tr>
<td>Viability</td>
<td>0.31 (6.33)</td>
<td>0.26 (2.34)</td>
<td>0.24 (4.07)</td>
<td>0.47 (3.39)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.02 (-0.57)</td>
<td>-0.06 (-1.95)</td>
<td>0.13 (4.48)</td>
<td>0.07 (1.72)</td>
</tr>
<tr>
<td>Partisanship Dummy</td>
<td>0.35 (4.36)</td>
<td>0.16 (1.98)</td>
<td>0.23 (3.07)</td>
<td>0.03 (0.26)</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>0.20 (7.86)</td>
<td>0.31 (11.48)</td>
<td>0.19 (8.48)</td>
<td>0.14 (4.61)</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>-0.18 (-7.23)</td>
<td>-0.19 (-6.96)</td>
<td>-0.14 (-5.58)</td>
<td>-0.22 (-3.41)</td>
</tr>
<tr>
<td>Ind.* Pos. Affect</td>
<td>0.03 (0.71)</td>
<td>0.02 (0.45)</td>
<td>0.03 (0.60)</td>
<td>-0.14 (-1.68)</td>
</tr>
<tr>
<td>Ind.* Neg. Affect</td>
<td>0.05 (1.13)</td>
<td>-0.03 (-0.71)</td>
<td>-0.12 (-2.51)</td>
<td>0.12 (1.79)</td>
</tr>
<tr>
<td>n</td>
<td>438</td>
<td>432</td>
<td>414</td>
<td>209</td>
</tr>
<tr>
<td>R² / St. Error</td>
<td>0.44 / 0.71</td>
<td>0.60 / 0.71</td>
<td>0.53 / 0.64</td>
<td>0.38 / 0.65</td>
</tr>
</tbody>
</table>

| June                  |              |              |              |             |
| constant              | 0.26 (1.02)  | -0.61 (-2.65)| -0.31 (-1.32)| -0.32 (-1.77)|
| Domestic Issues       | 0.01 (0.23)  | 0.09 (2.07)  | -0.08 (-1.86)| -0.07 (-1.69)|
| International Issues  | -0.08 (-1.82)| 0.01 (0.31)  | 0.08 (1.84)  | -0.04 (-1.09)|
| Viability             | 0.06 (0.89)  | 0.24 (1.29)  | 0.15 (1.75)  | -0.82 (-1.84)|
| Ideology              | -0.06 (-1.62)| 0.04 (1.11)  | 0.13 (3.58)  | 0.04 (1.01)  |
| Partisanship Dummy    | 0.32 (3.26)  | 0.45 (4.87)  | 0.19 (1.99)  | 0.18 (1.89)  |
| Positive Affect       | 0.25 (8.93)  | 0.22 (9.24)  | 0.14 (5.65)  | 0.19 (8.62)  |
| Negative Affect       | -0.26 (-9.01)| -0.22 (-6.99)| -0.28 (-9.13)| -0.07 (-1.68)|
| Ind.* Pos. Affect     | -0.01 (-0.19)| 0.10 (2.12)  | 0.08 (1.58)  | 0.11 (1.87)  |
| Ind.* Neg. Affect     | 0.04 (0.60)  | -0.05 (-0.98)| -0.09 (-1.47)| -0.16 (-1.16)|
| n                     | 363          | 365          | 355          | 251         |
| R² / St. Error        | 0.50 / 0.79  | 0.57 / 0.75  | 0.53 / 0.73  | 0.35 / 0.61 |

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
one term is significant. In the Carter equation, the interaction between positive affect and independence is significant and in the expected direction. The effect of positive affect for partisans is 0.22, while for independents it is 0.32.

The examination of ideology is based on a similar sort of logic as was the partisan analysis. Extreme ideologues may rely less on emotions than moderates (at least once ideology is accounted for). A dummy variable was created for ideology, coding moderates with a 1 and either extreme getting coded as 0. The resulting dummy variable was entered in the analysis as an interaction, just as before. The partisan dummy, described above, was also used. The 7 point ideology measure was removed from this equation, and replaced with 2 intercept dummy variables reflecting liberals and conservatives. The rest of the equations stayed the same.

The results are shown in Table 23, and indicate no support for the hypothesis. Of the 16 interaction terms in the 4 equations across both time points, one is significant (and signed opposite of what was expected). In the January equation for Reagan, the moderate / positive affect interaction is significant. Positive affect has less of an impact on evaluation among moderates than it does for the rest of the sample.

Consideration of this class of models, using interactive terms to allow different elements of the population to have differing levels of importance of emotional response, has not been particularly fruitful. When relationships were found, they were often not as expected. More often than not, however, there was simply no relationship to describe. It is important to note that the importance of emotions outside the interactions is still clear. Adding these interactive terms did nothing did weaken the argument that
Table 23: Basic Equation for Evaluation - Including Ideological Moderate Interaction*

<table>
<thead>
<tr>
<th>January</th>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>constant</td>
<td>-0.10</td>
<td>-0.33</td>
<td>-0.18</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>Domestic Issues</td>
<td>0.04</td>
<td>0.06</td>
<td>-0.13</td>
<td>-0.08</td>
</tr>
<tr>
<td></td>
<td>International Issues</td>
<td>-0.03</td>
<td>-0.04</td>
<td>-0.27</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Viability</td>
<td>0.30</td>
<td>0.44</td>
<td>0.22</td>
<td>0.42</td>
</tr>
<tr>
<td></td>
<td>Liberal Dummy</td>
<td>-0.13</td>
<td>-0.05</td>
<td>-0.28</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Conservative Dummy</td>
<td>-0.06</td>
<td>-0.18</td>
<td>-0.03</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>Partisanship Dummy</td>
<td>0.32</td>
<td>0.16</td>
<td>0.27</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Positive Affect</td>
<td>0.20</td>
<td>0.29</td>
<td>0.21</td>
<td>0.15</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-0.16</td>
<td>-0.18</td>
<td>-0.13</td>
<td>-0.19</td>
</tr>
<tr>
<td></td>
<td>Moderate* Pos. Affect</td>
<td>-0.01</td>
<td>0.02</td>
<td>-0.07</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>Moderate* Neg. Affect</td>
<td>0.03</td>
<td>-0.06</td>
<td>-0.00</td>
<td>0.03</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>547</td>
<td>539</td>
<td>519</td>
<td>238</td>
</tr>
<tr>
<td></td>
<td>R² / St. Error</td>
<td>0.42 /</td>
<td>0.60 /</td>
<td>0.46 /</td>
<td>0.38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>June</th>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>constant</td>
<td>0.00</td>
<td>-0.41</td>
<td>0.39</td>
<td>-0.37</td>
</tr>
<tr>
<td></td>
<td>Domestic Issues</td>
<td>0.03</td>
<td>0.07</td>
<td>-0.07</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>International Issues</td>
<td>-0.10</td>
<td>0.05</td>
<td>0.09</td>
<td>-0.03</td>
</tr>
<tr>
<td></td>
<td>Viability</td>
<td>0.09</td>
<td>0.37</td>
<td>0.12</td>
<td>-0.76</td>
</tr>
<tr>
<td></td>
<td>Liberal Dummy</td>
<td>0.22</td>
<td>0.01</td>
<td>-0.46</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td>Conservative Dummy</td>
<td>0.04</td>
<td>-0.00</td>
<td>-0.17</td>
<td>0.32</td>
</tr>
<tr>
<td></td>
<td>Partisanship Dummy</td>
<td>0.26</td>
<td>0.39</td>
<td>0.21</td>
<td>0.17</td>
</tr>
<tr>
<td></td>
<td>Positive Affect</td>
<td>0.23</td>
<td>0.23</td>
<td>0.18</td>
<td>0.18</td>
</tr>
<tr>
<td></td>
<td>Negative Affect</td>
<td>-0.28</td>
<td>-0.22</td>
<td>-0.28</td>
<td>-0.09</td>
</tr>
<tr>
<td></td>
<td>Moderate* Pos. Affect</td>
<td>-0.00</td>
<td>0.00</td>
<td>-0.07</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>Moderate* Neg. Affect</td>
<td>0.02</td>
<td>-0.01</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>427</td>
<td>424</td>
<td>415</td>
<td>286</td>
</tr>
<tr>
<td></td>
<td>R² / St. Error</td>
<td>0.48 /</td>
<td>0.55 /</td>
<td>0.51 /</td>
<td>0.35</td>
</tr>
</tbody>
</table>

* The dependent variable in each case is the adjusted overall evaluation. Entries are the unstandardized OLS coefficients, with t-values in parentheses. For convenience, significant values are underlined.
emotions matter. Unfortunately, it did little to significantly clarify the level of understanding either. In order to do this, perhaps a significantly complex model is needed. It is to this final model that I now turn.

There are two major weaknesses with the analysis in the form presented so far. First, there is evidence that an individual's assessment of the viability of a candidate not only influences their preference of candidate, but is also influenced by said preferences. While it is not clear that viability has a reciprocal influence on candidate evaluation as well, the presence of the viability measure on the right-hand side of the equation may raise some concern. Second, there exists no mechanism in the analysis to this point that allows for emotional response to be influenced by evaluation as well as running the other way. While there may not be solid theory advocating this additional linkage, given the survey-based measures used here, it is likely that the issue must be dealt with. If micro-level data were available, it may be possible to then carve up the time slices so small that the non-recursive element of the model could be resolved.

The seriousness of these two weaknesses is not easy to ascertain. The failure to incorporate the measure of viability in a reciprocal fashion (if it actually has a reciprocal link with evaluation) would be to over-estimate the importance of viability. A similar effect is present if we omit a reciprocal link on emotions. The way to resolve these conflicts would be to estimate a non-recursive model of evaluation, allowing

\[ \text{\cite{footnote}} \]

\[ \text{\cite{footnote}} \] While no non-recursive model with viability was estimated (due to instrumentation difficulties), the emotional terms were very poor predictors of the viability measures in simple OLS models (both current emotional response and lagged emotions were examined).
feedback from evaluation to some of the other terms. One of the difficulties of this approach, however, is finding appropriate instruments to use in the estimation. Items that serve as reasonable instruments for evaluation serve equally well as instruments for emotional response, at least once the noise of the process is allowed to attenuate the relationships. At any given time point, there are simply not many instruments that can distinguish between the various factors that need to be estimated. Once the dynamic aspect of the data is considered, however, new possibilities are available. The previous values of the variables of interest are reasonable estimates of the current values of those same variables. This allows some of the complexity of the model to be explored.

Lastly, it should be noted that the viability measure will be dropped from the remainder of the analysis because of the uncertainty about exactly how it should be treated, as well as poor instrumentation.

The final model to be estimated is one that allows significantly more complex relationships between the key variables. Evaluation is expressed as a function of the core set of variables used throughout this analysis and the previous measures of evaluation. Each emotional response term is expressed as a function of previous evaluation, that same previous emotional response, and the evaluation of the same period. The results were obtained via two stage least squares, with a number of exogenous terms serving as instruments. The equation was estimated for each candidate, and the results are shown in Table 24.

The first section of the table reflects the results for the evaluation equation. The key differences here are the exclusion of the viability measure and the addition of the
Table 24: Reciprocal Linkages Model

Dependent Variable: Evaluation

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>const</td>
<td>-0.15 (-0.38)</td>
<td>-0.82 (-2.36)</td>
<td>-0.15 (-0.44)</td>
<td>-0.69 (-2.04)</td>
</tr>
<tr>
<td>Domestic Issues</td>
<td>0.02 (0.36)</td>
<td>0.04 (1.02)</td>
<td>-0.05 (-1.15)</td>
<td>0.01 (0.21)</td>
</tr>
<tr>
<td>International Issues</td>
<td>-0.06 (-1.44)</td>
<td>0.07 (1.69)</td>
<td>0.07 (1.57)</td>
<td>-0.07 (-1.18)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.01 (-0.38)</td>
<td>0.10 (2.90)</td>
<td>0.10 (2.54)</td>
<td>0.06 (1.28)</td>
</tr>
<tr>
<td>Partisanship</td>
<td>-0.04 (-1.92)</td>
<td>-0.04 (-2.02)</td>
<td>0.01 (0.47)</td>
<td>0.00 (0.01)</td>
</tr>
<tr>
<td>Evaluation - January</td>
<td>0.22 (3.35)</td>
<td>0.38 (5.20)</td>
<td>0.34 (5.04)</td>
<td>0.30 (2.82)</td>
</tr>
<tr>
<td>Positive Affect</td>
<td>0.31 (4.15)</td>
<td>0.26 (4.64)</td>
<td>0.14 (1.82)</td>
<td>0.26 (3.28)</td>
</tr>
<tr>
<td>Negative Affect</td>
<td>-0.19 (-3.61)</td>
<td>-0.13 (-2.17)</td>
<td>-0.18 (-2.90)</td>
<td>-0.05 (-0.26)</td>
</tr>
</tbody>
</table>

\[ n = 346 \quad 339 \quad 320 \quad 153 \]

\[ R^2 / St. Error = 0.54 / 0.73 \quad 0.65 / 0.68 \quad 0.52 / 0.70 \quad 0.42 / 0.57 \]

Dependent Variable: Positive Affect

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>const</td>
<td>1.80 (6.73)</td>
<td>0.96 (1.78)</td>
<td>1.82 (10.88)</td>
<td>1.92 (6.98)</td>
</tr>
<tr>
<td>Evaluation - January</td>
<td>0.24 (1.18)</td>
<td>1.12 (2.19)</td>
<td>-0.24 (-1.21)</td>
<td>-0.42 (-0.67)</td>
</tr>
<tr>
<td>Positive Affect - January</td>
<td>0.33 (4.96)</td>
<td>0.79 (4.35)</td>
<td>0.34 (4.68)</td>
<td>0.22 (1.17)</td>
</tr>
<tr>
<td>Evaluation - June</td>
<td>0.55 (1.92)</td>
<td>-1.13 (-1.31)</td>
<td>1.15 (3.90)</td>
<td>1.95 (1.38)</td>
</tr>
</tbody>
</table>

\[ R^2 / St. Error = 0.40 / 1.28 \quad 0.35 / 1.90 \quad 0.35 / 1.51 \quad 0.27 / 1.58 \]

Dependent Variable: Negative Affect

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Carter</th>
<th>Kennedy</th>
<th>Reagan</th>
<th>Bush</th>
</tr>
</thead>
<tbody>
<tr>
<td>const</td>
<td>2.13 (13.08)</td>
<td>1.65 (10.34)</td>
<td>1.58 (9.11)</td>
<td>1.08 (4.93)</td>
</tr>
<tr>
<td>Evaluation - January</td>
<td>-0.20 (-1.12)</td>
<td>-0.07 (-0.35)</td>
<td>0.29 (2.06)</td>
<td>-0.13 (-0.51)</td>
</tr>
<tr>
<td>Negative Affect - January</td>
<td>0.50 (9.41)</td>
<td>0.50 (8.86)</td>
<td>0.47 (8.11)</td>
<td>0.37 (3.54)</td>
</tr>
<tr>
<td>Evaluation - June</td>
<td>-0.18 (-0.73)</td>
<td>-0.45 (-1.60)</td>
<td>-0.86 (-4.08)</td>
<td>0.02 (0.06)</td>
</tr>
</tbody>
</table>

\[ R^2 / St. Error = 0.45 / 1.13 \quad 0.55 / 1.06 \quad 0.46 / 1.03 \quad 0.11 / 0.99 \]

* Entries in the table are unstandardized two-stage least squares coefficients, with t-values in parentheses. Significant values are underlined. The sample size for each system is indicated as the "n" in the first portion of the table.
previous measure of evaluation. The January measure of evaluation is a significant predictor of evaluation in June in every case. Additionally, at least one of the affect measures is significant in every case. For Carter and Kennedy, both emotional measures are significant, while only one is for Reagan and Bush. The addition of the early evaluation term has the effect of knocking some of the other terms out of the equation. For example, partisanship, which figured so prominently in the recursive models, is significant in only one of the equations here. The key result in this portion of the table is the finding that, even allowing for reciprocal links and considering past values of evaluation, the influence of current emotional response terms is still significant.

The second portion of the table includes the results for the equation predicting positive emotional response in June. It is hypothesized to be a product of the January measure of positive emotional response, the January measure of evaluation, and the June measure of evaluation. Prior evaluation is a significant predictor in one case, while prior positive affect is significant in 3 of the equations. The June measure of evaluation is a significant predictor only once.

The third portion of the table contains the results for the equation predicting negative emotional response in June. The set of predictors includes January's measures of negative emotional response and overall evaluation, as well as the June measure of evaluation. The measure of January evaluation is significant in one equation, while the previous measure of negative emotional response is a significant term in all four equations. Evaluation in June is a significant predictor of negative emotional response
in June in only the Reagan equation.

The critical test in this portion of the analysis revolves around the reciprocal relationship between evaluation and the emotional response terms. The results indicate that the emotional response terms are a significant force, even in a reciprocal model that considers past values of evaluation. The emotional terms may not be the driving force in the model, but this was not the argument put forth. Rather, these measures have been shown to be significant forces and to be independent of evaluation. The linkages running from evaluation to the two emotional response terms suggest that, while evaluation may be a significant contributor, the driving force is the past realization of that emotion.

Concluding Thoughts

This chapter started with the belief that emotions belong in the study of politics, but that this was limited by the problems of our under-developed theory and poor measures. Numerous alternative approaches were considered, ranging from an affect-free recursive model as a baseline to a non-recursive model featuring affect and evaluation. The goal was to synthesize the ideas that are found in political science, social psychology, and wherever else that they may be found in an attempt to identify what role affect may play in the development of evaluation. Unfortunately, the nature of the tests that can be performed on survey data greatly limits how closely the various approaches can be tied to the results. The conclusions, then, become general statements about what is possible rather than what exist in exact detail.
The results, in sum, indicate that the unique contribution of emotional response holds up under a variety of specifications, some of which are mildly hostile to finding effects of emotion. While both recursive and no-recursive models were estimated here, the results do not offer a clear answer as to which approach is theoretically preferable. The reciprocal model would appear to be the most widely tolerated, but offers significant estimation difficulties.

The results also suggest that, at least with survey data, the entire sample can most likely be treated in a similar fashion. Models that allowed different aspects of the sample to have different uses for emotions were found somewhat lacking. It may be worthwhile to explore this distinction a bit more using more controlled circumstances (such as an experiment), in that when there were effects, they consistently suggested that there is some difference in the reliance on emotions. Unfortunately, this data made it impossible to fully explore.

One of the clear conclusions from this chapter is that we, as a field, must develop more satisfactory answers as to how emotions can be measured, where they come from, and what role they play in the perception of political figures. The relative robustness of these results, combined with the fact that no one is loudly arguing that emotions don't belong in politics, indicates that we may well be generating some false conclusions as long as we omit emotion from our work.
CHAPTER VI
CONCLUSION

While the classic phrase notes that "to err is human," for the purposes at hand this can be slightly modified to say that "to emote is human." We as individuals certainly experience emotions on a regular basis. The stimuli that generate these emotions may be quite varied. Since starting to consider this research, readers are sure to have experienced some emotional response to something around them, perhaps a reaction to the text, perhaps to some other stimuli. The point is that basically everyone experiences emotions.

The concern of this research has been to look beyond the mere experience of those emotions. Once an emotional response has been generated, does it serve a useful purpose? If so, how? Within the context of this work, the question has been focused on how emotions may be used in the perception of political figures. Emotionally speaking, how do we react to political candidates? Does the nature of this emotional reaction depend on the presence or availability of different (perhaps more objective) information? Once an emotional reaction exists, does it influence later perceptions and decisions, or is it merely a by-product of some other process? In the end, the question may be stated, bluntly perhaps, as follows: Do emotions matter?
The process of answering this question involves a process of incremental questions and answers. No single test or measure exists that will address this question. Pursuit of such an answer, as if the Holy Grail, will surely lead to frustration on the part of the researcher. The strategy for the incremental approach is to examine numerous different aspects of the question, the answer to each of which is not definitive. Considered en masse, however, the collection of evidence will generally support one interpretation over another.

The first step in this incremental approach was to consider the basic structure of affective response. If emotional response takes on a simple, unidimensional form, it is much more likely to be a summary product of some other process, thereby not being of as much consequence. The analysis presented here clearly demonstrates that emotional response is not a single dimension construct. Across both candidates and time, the basic two-dimensional structure came through. Individuals react to political figures with two distinct emotions, generally positive and negative. While the two dimensions are not unrelated, neither are they perfect related. The process by which an individual finds him or herself feeling a certain way about a given candidate allows conflicting emotions to exist simultaneously. The more complex two-dimensional structure, while not proving anything other than the basic structure of affect in the nomination season, does tend to lend itself more to an interpretation of affect mattering than to an affect as by-product thesis.

Given these results, the next step in the process is to consider the stability of emotions. If an individual's emotional response is moving about randomly, it would
seem less likely that emotions are contributing much to the process. Additionally, if the gathering of new information results in a decrease in stability, one interpretation would be that affective response is being driven by the other information, and in that sense is little more than a summary measure. Analysis of these questions, while again failing to offer any definitive proof, does generally take a form that allows for emotions to be a significant player in the process. A significant level of stability was found for emotional response to the nomination candidates, both at the individual and aggregate levels. Emotional response at one time point is a pretty good indicator of emotions at a later point. This level of stability was not reduced among those individuals learning during the campaign. Stated another way, new information was not found to alter the nature of emotional response. This is compatible with the idea of emotions being a factor of some importance in the process. The analysis to this point, again, has not proven that, but the results do not run counter to the idea of emotions mattering.

The final step in this incremental path of analysis is to attempt to add affect to our existing understanding of behavior. This step is fraught with difficulty, as the theoretical understanding is far from complete. Specification of the tests, which may have great implications for the conclusions, is a subject of some considerable debate. The analysis presented here, then, took a step-by-step approach. The starting point was a model without affect, attempting to account for evaluation with just the traditional terms. Then affect was added in a relatively simple specification. The analysis proceeded by adding complexity to the model, culminating in a model that allows emotions to influence evaluation, as well as being influenced by them. The most
striking conclusion from this portion of the analysis is that the affective terms continued to contribute to the explanation of evaluation, even as the model specification grew more hostile to such a result. When allowing emotions to be influenced by evaluation, there was a significant link running back to evaluation, even with a full set of traditional sorts of variables in the equation. This portion of the analysis is as close as it gets to a direct test of the question about the role of affect. Given the attention to different measurement and estimation concerns, the results still seem to be generally supportive of the idea that an individual's affect response to political figures contains some unique information, and that this information is of use during the process of evaluation and choice.

The basic question asked in the first chapter involved the role of affect in the process of evaluation. Has the research presented offered a definitive answer to this question? The answer is clearly no. There are simply too many concerns about a variety of issues to make such a claim. However, the evidence presented here does overwhelmingly stack up on the side of interpreting emotion as meaningful player. Again, note that no one piece (even the last chapter's analysis) is convincing alone. Together, the material does seem to suggest an environment where emotions are important. Consider the pieces again: affective response takes on a complex structure which would not be expected if it were a simple product; affective response shows significant levels of stability, even in the face of learning, which would not be expected if affect were being moved about by the dynamics of the campaign; and finally, affective response is significant in relationship to evaluation under a variety of different
model specifications. While these pieces do not prove affect matters, they do make much more difficult to say that affect does not matter. Emotions are not a tautology with evaluation, and they do not behave as they would if merely a by-product of the larger process.

How satisfactory is this conclusion? In the end, an argument structured such as this one has been structured may convince no one on either side. An individual inclined to dismiss emotions can simply point to the various concerns about measurement and specification as grounds for dismissal. An advocate of considering emotions may not feel this is a satisfactory result, for it pulls up short of offering the definitive answer. Nothing can be done to make either point of view feel better about the results. What has been done here is approaching the top threshold of survey data analysis, at least on this sort of question. Micro-level psychological processes are difficult to assess via a survey. Trying to model the changes in those processes is even more difficult. However, the results presented here do appear to be robust to such a degree that immediate dismissal should be impossible.

When considering the utility of this set of questions as a means of assessing emotional response via a survey instrument, several different elements can be considered with an eye towards improving measurement. First, the actual text of the question may need to be revised. As it is now asked, the question on anger asks "Now think of ______ has _____ - because of the kind of person that he is, or because of something that he has done- ever made you feel angry?" One of the concerns of this question phrasing is that it may allow a respondent to report having felt some emotion
prior to the survey, but one that he or she no longer feels. Replacing the timeless word "ever" with a more specific reference (such as "6 months") is also problematic, in that respondents still may have experienced an emotion previously that is no longer relevant. Additionally, the reference to the specific period switches the concerns from an unlimited time reference to an arbitrary one. Although the analysis presented here indicated that respondents were answering the question with something less than an infinite time frame in mind, it would be beneficial to have cleaner question language in order to examine this further. One possibility would be to simply remove the time reference, and ask about the respondent's current state. This could be done with a question along the lines of "Now think of _____ has _____ - because of the kind of person that he is, or because of something he has done - made you currently feel angry?" The gain by switching to this question with no time reference may not be the best, as emotional response may influence something and then disappear. However, the format should be considered, at least as a way to address some concerns about the respondents' answers.

A second aspect of the question language that should be explored involves the choice of emotional terms to ask the respondent about. As was noted an earlier chapter, the terms asked about here can all be classified as "high arousal" terms. While the basic structure of emotional response found here is similar to that found in studies with a larger variety of terms, it would be valuable to ask about some low arousal terms with
respect to political candidates. Additionally, some terms could be added that represent more instinctive emotional reactions (such as nervous, anxious, calm, and so forth). It certainly seems more likely that a new candidate may make someone nervous long before making the person feel anger.

Not only should the text of the question be considered for change, as the structure of the response is clearly one of the limiting factors of this battery of questions. The current question offers only a Yes or No response option. There is no scale on which a respondent can distinguish between a little anger and a lot of anger, in spite of the obviously different implications of the two emotional states. Minimally, the questions should be asked in a way that allow the respondent to indicate a degree or amount in the response. It is easy to envision a seven-point scale, possibly ranging from "no, never have felt that way" on one end and "I feel that reaction very strongly" on the other end. My expectation is that the distribution of responses would be tri-modal, with the passionate supporters and opponents on the ends, with the more marginally aware respondents clustering in the middle. Regardless, this addition would be a valuable change to the structure of the question.

An additional change that could be made in the response set would be to add a follow-up question or two to the response. The respondent could be asked what made

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91 See Morgan and Heise (1988) for examples.
them feel that way and how long they have felt this way. At the end of the battery, the
respondent could be asked to state which of the emotions they have felt were the most
important. In the waves under consideration here, there are no such follow-ups.
However, there were general questions along these lines used during the general
election waves. Preliminary analysis of that data indicates that such additions may be
very useful.

A small change in procedure could also prove useful. The 1980 NES used a
filter question on candidate knowledge. Only respondents who were familiar with the
candidate and felt they knew something about him were asked the emotional response
questions. By filtering out the respondents with a lower level of recognition, the survey
design actually removed a potentially interesting question from consideration. Future
designs should consider the possibility that emotions play a meaningful role, and seek
responses from a full range of respondents. This can be done by leaving in the filter
question, but asking the candidate-specific questions of the full set of respondents.

A final change that could be considered does not involve the question as much
as it involves the timing of the question. Given the micro-level nature of the process
under consideration, a period of examination that is months between observations is
much to crude to catch some of the detail. One interesting design for a study would be
to measure emotional response at regular intervals (perhaps weekly) across a campaign.

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92 Clearly, asking respondents why they feel the way they feel is fraught with
opportunities for problems (see Wilson 1979). However, the information obtained in
such a question may be useful in understanding the nature of emotional response in a
political environment.
This would allow changes in the individuals to be mapped into campaign events. It would also allow more detailed panel analysis. The 1980 design allows only for the nomination period to be bracketed by the observations. The 1984 Nomination study, with its rolling cross-sectional design, offers small weekly samples with which the basic structure of emotional response can be examined. However, the lack of panel measures in the 1984 study make it difficult to do any more detailed analysis. While a study featuring large weekly panels is clearly beyond the budget of the National Election Studies, it does raise interesting questions.

While survey data offer a rich collection of respondents operating in a real world environment, there are limitations. Future work on emotional response may benefit significantly from a series of well-designed experiments. One possible design would involve a series of fake candidates and controlled information flow (much like the work done by Rahn). Only in this situation could a clear test of emotional response as a source of information actually be tested. A second possible approach would be to assess the availability of emotions via a reaction time study. Zajonc argued emotions are quick and easy. This could be demonstrated with such a design. Use of such experimental manipulations could clarify some of aspects of emotional response that are beyond the reach of survey data. In the final analysis, I suspect that the full picture of emotional response will not be drawn unless a series of experiments are combined with additional survey data. Sadly, to this point such linkages are few and far between.
A Word on the Implications of this Study

The results presented here are compatible with a world where an individual's emotional responses can be a significant force in the development of their evaluations of various political figures. From a political impact point of view, there are at least two things to consider. The first is simple. Candidate evaluation and candidate choice are not always the same in the primary (see Abramson, Aldrich et al. 1991). While most studies have attempted to model choice in the primaries, this work has focused on evaluation. Finding that emotions are associated with evaluation is, in the end, not as useful to a politician as finding that they are related to choice.

The second issue is more complex, and to some degree represents a cynical view of both candidates and voters. If emotions do contribute to candidate evaluation (ignoring for a moment the imperfect linkage between evaluation and choice), and this contribution can be independent of what would traditionally be called objective information, does this mean that a shrewd candidate can perfectly manipulate the public's emotions as a method of getting into office? At first blush, this appears to be a far-fetched idea, which would require a precision not known in the social sciences. A candidate would be able to know exactly how voters would react to certain things, and be able to convey that information in a method that minimizes error. It also has to assume that voters are easy to manipulate, being some form of passive emotional receivers. Both of these requirements are clearly impossible to meet. Voters come to the process with their own unique baggage. The method in which messages are interpreted has as much to do with the internal baggage as it does the message itself.
the transmission of messages always contains errors. Finally, candidates will never have perfect knowledge of the voters.

Yet, this idea is not that easy to dismiss. Consider recent political campaigns. Objective information is not being conveyed at anywhere near the same rate as information about the candidates' personalities (or personality problems). Negative campaigns advertisements do not seek to convert voters with information, but rather by generating fear of the opposition. Positive advertisements by the candidate also fail to convey much information, but rather often invoke symbols of pride, patriotism, and leadership. In many ways, our political diet now contains largely things that could be described as emotional nuggets and appeals to symbols that are linked to emotions.

While political scientists have tried to account for behavior with information, or at least logic, candidates and consultants appear to have noticed that individuals have emotions, and that these emotions have the potential to be power forces in the political process. The voters are likely not as simple as the consultants think, but as long as the diet contains only such political junk food, the explanations offered by political scientists will over-estimate what the voters are able to really do.
LIST OF REFERENCES


