PREDISPOSITIONS AND PUBLIC SUPPORT FOR
THE PRESIDENT DURING THE WAR ON
TERRORISM

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Abstract  The terrorist attacks of September 11, 2001 and their aftermath offer a rare opportunity to examine how presidential approval responds to a sudden and severe national security crisis. I utilize the 2000–2002 National Election Studies panel to track change in public attitudes toward George W. Bush over the first two years of his presidency. An advantage of using panel data is that it allows me to go beyond aggregate change in presidential approval to examine how change is related to defense policy predispositions and prior political awareness. I find important differences. Over these two years, those high in political awareness experience priming of their defense predispositions but very little rally effect. In contrast, those low in political awareness experience a rally in support for Bush but very little priming. These results reaffirm that those with different levels of political awareness respond to dramatic messages in distinct ways.

Introduction

Few could have anticipated during the 2000 United States presidential election campaign how momentous the first two years of George W. Bush’s presidency would be. Prominent campaign issues in 2000 included expanding Medicare to include a prescription drug plan and the nature and extent of future tax cuts. While foreign affairs and defense-related concerns were discussed in the...
campaign, they were not dominant issues (Pomper 2001). The dramatic terrorist attacks of September 11, 2001 initiated a series of security crises that were not foreshadowed in the 2000 campaign. Not only were the attacks themselves sudden and covered ubiquitously in the news media (Jamieson and Waldman 2003), but they were followed by a series of other high profile security-related events, including a war in Afghanistan and eventually another war in Iraq.

The sharp change in the American political landscape initiated by the terrorist attacks provides an opportunity to see how public approval of the President responds to an unforeseen series of major security crises. While substantial prior research has examined the effect of security crises on presidential approval, the terrorist attacks of September 11, 2001 were an unprecedented event in American history. As such, they don’t fit into any of the categories of security crises described by the previous academic literature (Hetherington and Nelson 2003, p. 37). Given the possibility of future terrorist attacks, it is important to understand how these types of crises affect public opinion generally, and presidential approval in particular. Based on prior research, one could expect these dramatic events to cause both a rally in overall support for the President and priming of defense-related considerations. Here I use individual-level panel data to study the dynamics of public support for George W. Bush between the fall of 2000 and the fall of 2002. These data allow me to go beyond simply documenting rally or priming effects to examine the role that political awareness plays in moderating both of these phenomena. This evidence sheds new light on the way responses to security crises depend on political awareness. I find that, in this case, those low in political awareness experience a rally in support for the President while the highly politically aware experience experience priming.

Security Crises and Presidential Approval

Presidential approval tends to respond to wars and other defense-related crises in two ways. First, these crises tend to produce rapid increases in aggregate support for the president among the public. This is often called the “rally around the flag” effect (Polsby 1964; Mueller 1970, 1973; Kernell 1978; Sigelman and Conover 1981; MacKuen 1983; Brody 1991; Mueller 1994; Edwards and Swenson 1997; Erikson, MacKuen, and Stimson 2002). Historical examples of this phenomenon include public reaction to the start of the Korean War, the

1. Foreign affairs were the main focus of the second presidential debate. However, a main differentiation made between the candidates during debate on this issue was George W. Bush’s opposition to “nation building” (Commission on Presidential Debates 2003). This was notably different from the more aggressive and ambitious foreign policy the Bush administration pursued after September 11, 2001.

2. These categories include the initiation of foreign military intervention, a major diplomatic action, notable technological developments related to defense, major summit meetings, and important developments in ongoing military conflicts (Mueller 1973; Hetherington and Nelson 2003).
launch of Sputnik, the Cuban missile crisis, the taking of hostages in Iran, and other similar events.

Second, security crises affect presidential popularity by priming defense policy attitudes. Iyengar and Kinder (1987, p. 63) define priming as occurring when the news media message “by calling attention to some matters while ignoring others . . . alters the standards by which governments, presidents, policies, and candidates for office are judged.” Survey evidence suggests that prior security crises primed the public by bringing defense-related considerations to the fore. For instance, Krosnick and Kinder (1990) compare survey respondents who were interviewed before and after extensive press coverage of the Iran-Contra scandal in 1986. They find that foreign policy opinions were much more strongly related to evaluations of President Reagan after the scandal broke. In a similar way, Iyengar and Simon (1994) and Krosnick and Brannon (1993) find that public approval of President George H.W. Bush was more strongly related to foreign policy considerations after the first Gulf War began than before it (but see Lenz 2004, 2006). Finally, Edwards and Swenson (1997) find that, following air strikes on Iraq in 1993, public approval of President Clinton became increasingly related to evaluations of his foreign policy.

Past work generally does not treat priming and rally effects as distinct phenomena.\(^3\) In many circumstances, they may go together. For example, dramatic events could increase support for the president among all people, but the increase may be larger among those who share the president’s views on defense policy. In this hypothetical case, both a rally (an aggregate increase in support) and priming (an increase in the influence of defense opinions on presidential approval) occur together. But it is not necessary to conflate these two phenomena. It is possible for public approval of the president to become increasingly correlated with defense preferences (priming) while the overall level of presidential support stays constant or declines. Analogously, it is possible for public support for the president to increase (rally) in a manner uncorrelated with defense opinions, resulting in no priming.

In order to more precisely describe the dynamics of opinion change, here I will differentiate between these two effects, often using the terms “ordinary rally effect” to describe a rally without priming, “ordinary priming effect” to describe priming without a rally, and “rally effects with priming” to describe the confluence of both effects. Differentiating between concepts in this way allows me to describe more precisely the patterns in the data and to determine whether political awareness moderates these two phenomena in distinct ways.

**Persuasion and Political Awareness**

One of the most important and well-documented findings in public opinion scholarship is that those with different levels of political awareness respond

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3. Edwards and Swenson (1997) is a notable exception.
to persuasive messages in different ways (see for example, Converse 1962; McGuire 1969; Neuman 1986; Zaller 1989, 1991, 1992). As Zaller (1992, p. 21) defines it, political awareness “refers to the extent to which an individual pays attention to politics and understands what he or she is encountering [italics in original].” By affecting both what messages one receives, and how one’s mind processes what is received, awareness is a key moderating variable for all types of political persuasion. A common way to measure political awareness is with a short series of factual questions about politics (Zaller 1992; Price and Zaller 1993; Delli Carpini and Keeter 1996).

Some existing studies examine the way political awareness moderates the effects of both direct persuasive messages and priming messages. In the case of direct persuasive messages, prior findings suggest that the relationship between political awareness and vulnerability to persuasion depends on the strength of the message. When the message is very weak, those who are the most politically aware are most likely to be affected. But when messages are very strong, the least politically aware are most likely to be affected.4

Several studies of priming examine the moderating effect of political awareness. Iyengar and Kinder (1987, pp. 90–97) find no relationship between political awareness and susceptibility to priming in their laboratory experiments. While survey studies of defense policy priming generally find that the least politically aware are the most influenced (Krosnick and Kinder 1990; Krosnick and Brannon 1993),5 Miller and Krosnick’s (2000) laboratory study finds the opposite.6 While one of these previous studies documents evidence of rally effects with priming (Krosnick and Brannon 1993), when examining the

4. Following this pattern, when messages are moderate in strength, previous work has found that those at middle levels of political awareness are most likely to be persuaded (Converse 1962; McGuire 1969; Zaller 1989, 1992, 1996). This can account for the observation that in most election campaigns, those with moderate political awareness are most likely to be persuaded to vote for the candidate opposite to their party identification.

5. Krosnick and Brannon (1993) find that when they include multiple measures of political awareness in the same model, the relationship between priming and both interest and news exposure is negative. However, in some circumstances, the relationship between political knowledge and priming becomes positive when other measures of awareness are included. They argue that these results demonstrate that different types of political awareness have different effects on priming. However, there are several possible explanations. While it is possible that their interpretation is correct, it is also possible that the apparently different effects of these variables are a statistical artifact. When different measures of the same concept are included in a regression model, the covariance between them often causes their coefficients to have opposite signs, even though the effect of the underlying variable is constant (Achen 1983, 1985). In addition to this danger, it is very difficult to estimate the numerous interaction terms required to test for multidimensional effects of political awareness with the number of respondents in the 2000–2002 NES panel (or in any NES survey for that matter). Given these difficulties, I follow the majority of previous scholarship, which treats political awareness as one variable (see for example Iyengar and Kinder 1987; Krosnick and Kinder 1990; Zaller 1992; Edwards and Swenson 1997).

6. Miller and Krosnick (2000) find that only experimental subjects who are both politically knowledgeable and trust the news media, experience priming. In my analysis, I check for evidence that priming in these data is related to trust in the media. See Note 25.
moderating influence of political awareness all focus exclusively on the ordinary priming effect.

Very few researchers have studied the relationship between political awareness and rallies specifically. Examining presidential approval in the 1950s and 1960s, Mueller (1973, ch. 5) finds that those with more education were more responsive to events, including rally-inducing crises. However, Baum (2003, pp. 212–222) finds that rallies have changed since the 1950s, with the least politically engaged becoming the most responsive to rally events in recent decades. Neither of these examinations of political sophistication and the rally phenomenon differentiates between ordinary rally effects and rally effects with priming.

The only previous study to look at the effect of political awareness on rally and priming effects separately is Edwards and Swenson’s (1997) examination of changes in public support for President Clinton following his missile strike on Iraq in June 1993. They find that, while those who follow the news are not more likely to increase their support for the President, they are more likely to experience ordinary priming of their foreign policy preferences. This suggests that political awareness may have different effects on the propensity to rally and the propensity to be primed.

The Present Analysis

This paper examines the dynamics of public support for President Bush in the first two years of his presidency. As noted above, Presidential campaign rhetoric in 2000 largely focused on domestic issues (Pomper 2001). However, eight months into George W. Bush’s presidency, on September 11, 2001, the United States was the subject of sudden and unprecedented terrorist attacks. These attacks were followed by a series of other events that could also be considered national security crises. By the fall of 2002, Bush had presided over anthrax attacks through the mail on members of Congress, a war against the Taliban in Afghanistan and preparations for another war in Iraq. A look at commercial polling before and after the September 11 attacks shows that the public’s perceptions of the threat of terrorism were clearly affected by this series of crises. For example, the percentage of the public believing that it was “very likely” a terrorist attack would occur in the United States in the next few months increased from 23 percent before September 11 to 53 percent after (Huddy, Khatib, and Capelos 2002, p. 432). Those saying they were concerned about a possible terrorist attack in the area where they lived increased from 20 to 43 percent (p. 437). Those who were “very” or “somewhat” worried that someone in their family would be the victim of a terrorist attack increased from 34 to 58 percent (p. 436).

Since the September 11 attacks and their aftermath posed both dramatic security threats to the country and a stark change in emphasis from the issues in
the 2000 campaign, I hypothesize that public opinion will both rally around the president and be primed to think more about defense policy. Below, I test these predictions and examine how both rally and priming effects vary by political awareness.

Data

I use data from the National Election Studies (NES) surveys conducted at the time of the 2000 and 2002 elections. In each year, I use the post-election surveys conducted in the month after the election. These were national probability sample surveys of the United States voting age population. What makes these data particularly useful is that they contain a panel component. Of the 1,441 respondents interviewed as part of the 2002 survey, 1,070 were previously interviewed for the 2000 survey. There are significant benefits to using panel rather than cross-sectional data to analyze opinion change over time. This type of data is especially useful for tracking which types of people change their opinions over time (Edwards and Swenson 1997; Lenz 2004, 2006). In this study, I focus on how change in presidential approval depends on both defense policy predispositions and prior political awareness. While cross-sectional data can only measure whether certain characteristics become more or less correlated over time, panel data allows one to ensure that changes in presidential approval are caused by these predispositions rather than the reverse (Lenz 2004, 2006). I explain this approach in more detail later in this section.

There are some drawbacks to using panel rather than cross-sectional data in this circumstance. The most important limitation is that this panel study has only two waves and they are two years apart. This means I will not be able to separate out the effects of the many events that occurred in these two years. In contrast, cross-sectional surveys are conducted by commercial firms much more frequently. For example, figure 1 graphs the percentage of the public giving George W. Bush a “favorable” rating in Gallup surveys between the fall of 2000 and the fall of 2002. Bush experiences a strong surge in popularity following September 11, 2001, moving from 60 to 87 percent favorable. Consistent with previous studies of the rally phenomenon (Mueller 1973, ch. 9; Kernell 1978; Erikson, Mackuen, and Stimson 2002, p. 57), after the initial surge ratings of

7. The initial 2000 NES sample has an AAPOR RR1 response rate of 60.6 percent. The 2002 post-election survey’s reinterview rate for panel respondents is 59.9 percent, producing an overall response rate for the 2000–2002 portion of the panel of 39.6 percent. The NES’s response rate calculations for panel reinterviews include procedures generally consistent with, but not specifically laid out in the AAPOR guidelines. For more information, see the NES web site, http://www.electionstudies.org. On panel reinterview procedures, see especially the Introduction to the 2002 NES Codebook at ftp://ftp.electionstudies.org/ftp/nes/studypages/2002prepost/anes_2002prepost_int.txt
Bush begin to slowly revert toward their previous levels (Brody 2003). But this surge was unusually long-lasting (Hetherington and Nelson 2003; Jacobson 2003), with only a portion dissipating by the time of the 2002 congressional elections. Support for Bush remained higher than it had been prior to the initial terrorist attacks. With the NES panel data, I am unable to examine the correlates of opinion change at different points throughout this surge and partial decline. I can only examine opinion change between the beginning and end of this two-year period. But I believe the benefits outlined above make the analysis worthwhile, despite the coarseness of the chronological comparison.

Other potential drawbacks of panel data are biases introduced by the process of impaneling respondents over time. These biases can result from either panel conditioning, where being interviewed itself effects responses in subsequent waves, or panel attrition, where those who complete all waves are less representative of the population at large than the original first-wave sample. Fortunately for this analysis, those who have looked for panel induced biases have found that at least in the NES, these effects tend to be small (Bartels 1999).

The 2000–2002 NES panel data are also complicated by the use of two different modes of interviewing in the 2000 survey. In that year, approximately half of the respondents were interviewed in-person while half were interviewed over

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8. This and all other data analyses presented in this paper were conducted using Stata 9.0. In generating figure 2, I use CLARIFY 2.1 (Tomz, Wittenberg, and King 2003), which is a set of macros that run within the Stata environment.

9. I also find this same pattern in polls by Harris Associates and Opinion Dynamics. As Brody (2003) documents, the pattern is the same if one looks at job approval ratings rather than personal favorability ratings.
the telephone. In the case of some survey questions, such as the defense spending, government services, and abortion questions used here, these differences in mode caused further differences in administration and wording (Bowers and Ensley 2003; Bowers et al. 2005). Following Bowers et al.’s (2005) advice, I have checked all the results reported below for sensitivity to mode by running each analysis separately for each half of the data. (Exact wordings in both modes of all survey questions used in my analysis are in the Appendix.)

In my analysis, I track over-time change in attitudes toward George W. Bush by using respondents’ evaluations on a 100-point feeling thermometer. While feeling thermometer ratings have been used as summary presidential evaluations in past priming studies (Krosnick and Kinder 1990; Krosnick and Brannon 1993), other priming and rally studies have used job approval ratings (Mueller 1970, 1973; Krosnick and Kinder 1990; Krosnick and Brannon 1993; Iyengar and Simon 1994). This study does not use job approval ratings because it requires questions evaluating George W. Bush asked in the same format in both 2000 and 2002. There was no question regarding Bush’s job performance in 2000 because he was not the president at that time. Luckily, this does not prevent this study from being comparable to other studies of rallies and priming. Examinations of the effects of security crises using both feeling thermometer ratings and job approval ratings find they produce very similar results (Krosnick and Brannon 1993; Iyengar and Simon 1994).

A comparison of thermometer ratings of George W. Bush in the 2000 and 2002 NES surveys is consistent with the commercial survey data. The average thermometer rating increases 9.9 points, from 56.1 (with a standard deviation of 27.0) to 66.0 (with a standard deviation of 27.2). Attitudes toward Bush are significantly, but not dramatically, more favorable in 2002 than in 2000.

To measure defense policy preferences, I use respondents’ opinions on whether defense spending should be increased or decreased. An important advantage of using survey questions probing defense spending preferences is that their validity has been extensively examined by previous researchers. They find that these questions tend to accurately measure willingness to use force in international affairs and general militarism (Hurwitz and Peffley 1987; Bartels 1994). It is just this sort of orientation that I expect to become more salient during this two-year period. In in-person interviews, respondents were shown a 7-point scale where 1 was labeled “greatly decrease” and 7 labeled “greatly increase.” In telephone interviews, a two question branching format was used that produced five response categories: decrease “a lot,” decrease “a little,” “about the right amount,” increase “a little,” and increase “a lot.” In analyses where data from both modes are combined, I convert telephone answers to the 7-point scale, such that decrease “a lot” is coded as 1, decrease “a little” coded

10. This comparison uses data from the entire cross-sectional NES samples in 2000 and 2002. If only panel respondents who completed all questions used in this analysis are considered, Bush’s average thermometer rating increased 8.9 degrees, from 57.9 in 2000 (with a standard deviation of 27.3) to 66.8 in 2002 (also with a standard deviation of 27.3).
as 2, “about the right amount” coded as 4, increase “a little” coded as 6, and increase “a lot” coded as 7.  

It is also possible that other types of considerations became more or less important determinants of presidential approval over this time period. For example, one of the Bush administration’s major accomplishments prior to September 11, 2001 was passage of tax cuts, with the goal of both reducing the tax burden and preventing the growth of government programs (Nelson 2004; Pfiffner 2004). To ensure that possible priming of preferences about the overall size of government does not bias my estimate of the defense policy priming, I use a measure of respondents’ general preferences for government spending as a control variable. I use the NES question asking respondents whether government should “provide many more services even if it means an increase in spending” as a measure of this general orientation toward government. The wordings and response options for this question are very similar to the defense spending question and the telephone and in-person responses are combined in the same way. In addition, throughout his presidency, George W. Bush has symbolically identified himself with conservative cultural values, including consistent support for a “culture of life” and the frequent use of other religious metaphors (Gregg 2004; White House Web Site 2005). It is possible that, over the course of the first two years of his presidency, evaluations of Bush became increasingly related to citizens’ opinions on cultural issues. To account for this, I include respondents’ opinions on the legality of abortion as a measure of cultural conservatism. For this question, both phone and in-person respondents were given the same four response options, as described in the Appendix. In contrast, there were relatively few dramatic events related to domestic race relations during this time period. Considering that opinions about government policy toward African-Americans have in the past been quite stable and influential political attitudes (Converse 1964; Kinder and Sanders 1996), one might expect racial opinions to become less influential determinates of presidential evaluations over this time. To control for this possibility, I include respondents’ support for government efforts “to improve the social and economic position of blacks” in my analyses. This question was asked in a similar format to the defense spending and government services questions and responses from the different modes were combined in the same way. Finally, it is possible that the effect of party identification changed over this time period. Past work suggests that presidential campaigns can increase the salience of party identification (Lazarsfeld, Berelson, and Gaudet 1948; Berelson, Lazarsfeld, and McPhee 1954; Patterson and McClure 1976; Ansolabehere and Iyengar 1995; but see Bartels 2006a, pp. 92–94). Furthermore, Hetherington and Nelson’s (2003) analysis of cross-sectional commercial polling data indicates that Democrats were more likely to increase their support for Bush after September 11 because most Republicans

11. I tried combining responses from the two modes in different ways, such as coding decrease “a little” as 2 and increase “a little” as 5, and found very similar results to those presented here.
already strongly supported him. This leads me to expect that party identification may have become a less important determinant of evaluations of Bush between 2000 and 2002. To account for this dynamic, I include party identification in my analyses. For this question, both telephone and in-person respondents were asked using branching formats with very similar wordings.

As a measure of respondents’ prior political awareness, I use a battery of five factual questions about politics (Zaller 1992; Price and Zaller 1993; Delli Carpini and Keeter 1996). All variables in the analysis are coded to range from 0 to 1 except for the thermometer ratings which are kept on their original 1 to 100 scale. For all except political knowledge and thermometer ratings, 1 is coded to be the most conservative response and 0 the most liberal.

This paper departs from most previous studies of priming in the approach I use to analyze the data. Typically, past studies outside the laboratory examine separate cross-sectional surveys conducted before and after an event researchers suspect of causing priming. Then, results showing that opinions on an issue are more strongly related to candidate (or presidential) evaluations after the priming event are presented as evidence that priming has occurred (Krosnick and Kinder 1990; Johnston et al. 1992; Krosnick and Brannon 1993; Iyengar and Simon 1994). However, as Lenz (2004, 2006) shows, this approach is unable to distinguish between actual priming and individuals adjusting their issue opinions to match their candidate evaluations. Given the strong tendency of survey respondents to alter their opinions to rationalize their political choices (Rahn, Krosnick, and Breuning 1994; Bartels 2002; Cohen 2003; Lenz 2004, 2006), this is a potentially serious problem. In addition, it is likely that the

12. Previous research also suggests that party identification tends to be correlated with defense spending preferences (Hurwitz and Peffley 1987), increasing the likelihood of omitted variable bias if it is not taken into account.

13. This is done by numbering the response categories sequentially starting with 0, then dividing the variable by the number of the highest category. This produces a variable whose minimum category is still coded as 0, whose maximum category is coded as 1, and where the remaining categories lie equally spaced between 0 and 1. This has the advantage of giving ordinary least square regression coefficients a straightforward interpretation. They represent the expected movement of the dependent variable when the explanatory variable moves from its minimum to its maximum. Because of this simple exposition, Achen (1982), recommends coding survey responses in this manner. The obvious remaining weakness of this approach is that, by treating responses to a survey question as a continuous variable, one assumes that the effect of moving from one category to another is constant across all categories. Although I know of no priming study that has done this, an alternative would be to include each category of each explanatory variable as a separate dummy variable in the regression (leaving one excluded category for each variable to avoid perfect multicollinearity). Unfortunately, there is not enough data to perform the tests in this paper with the explanatory variables recoded as dummy variables.


15. While Krosnick and Brannon (1993) use panel data, their analysis treats the data as a series of cross sections. They do not use the panel nature of the data to make sure that it is issue attitudes that are causing changes in candidate evaluation rather than the reverse (Lenz 2004, 2006).

16. The same methodological limitation arises when analyzing a “rolling” cross-section, as in Johnston et al. (1992) (Lenz 2004, 2006).
same type of messages that cause rally and priming effects may also persuade the public to change their defense spending preferences. Unfortunately, defense spending preferences were probed using a different question format in 2002 than either of those used in 2000, making the extent of this change difficult to determine.\textsuperscript{17} It is also possible that opinions in other issue areas and even political knowledge were affected by the events of these two years.\textsuperscript{18} This presents a problem for determining how these characteristics moderate the effect of messages on the public.

For an attribute to moderate the effects of a message, it must be present before the message is received. So one way to get around this endogeneity problem is to exploit the panel data by only using attributes measured in 2000 as factors that condition changes in presidential approval (Lenz 2004, 2006). Because I use this strategy, I interpret my results somewhat differently than other studies of priming. I generally refer to defense policy predispositions and prior political awareness, rather than simply defense spending preferences and political awareness. In using the word predisposition to describe defense preferences, I mean it only in the sense that this was the respondent’s preference prior to the event in question (in this case, the war on terrorism). I don’t mean to imply that these opinions are particularly long-lived or strongly held, merely that they existed prior to the event whose impact they moderate.

\section*{Results and Analysis}

As noted above, between the fall of 2000 and the fall of 2002, George W. Bush’s mean thermometer rating increased 9.9 degrees from 56.1 to 66.0. But how did individual-level changes in support depend on predispositions? My first expectation is that the nature of opinion change will depend on respondents’ defense policy predispositions. This would occur if the security crises during

\begin{footnotesize}
\begin{enumerate}
\item In 2002, when all interviews were conducted over the phone, respondents were only given three response options: “decrease,” “stay about the same,” and “increase.” While the wording differed somewhat, the question asked in 2002 had some similarities to the first question asked to telephone respondents as part of the two-question branching format (see the Appendix). Comparing these responses, among 2000 telephone respondents, 18.7 percent said “decrease,” 24.9 percent said “stay about the same,” and 56.4 percent said “increase.” Among 2002 respondents, 6.9 percent said “decrease,” 33.8 percent said “stay about the same,” and 59.3 percent said “increase.”

In addition, because questions like this ask for preferences compared to the status quo, comparing responses over time may not detect real changes in people’s preferred level of defense spending. For instance, it is possible that people’s preferred levels of defense spending increased after September 11, 2001, but those new demands were quickly met with increases in federal spending on defense. This could produce preferences relative to the status quo that are similar in 2002 to those in 2000, even if most people’s ideal level of defense spending has increased.

\item In addition to questions (like defense spending preferences and opinions on “aid to blacks”) that were asked in different formats in 2002, other questions (such as trust in the media, abortion preferences, general preferences for government services, and the political knowledge battery) were not asked at all in that year.
\end{enumerate}
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### Table 1. Change in Bush Ratings by Defense Preferences and Political Knowledge

<table>
<thead>
<tr>
<th></th>
<th>2000 Bush thermometer</th>
<th>2002 Bush thermometer</th>
<th>Difference</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Panel Respondents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Decrease defense spending a lot</td>
<td>35.5</td>
<td>37.8</td>
<td>+2.3</td>
<td>32</td>
</tr>
<tr>
<td>2 Decrease defense spending a little</td>
<td>45.4</td>
<td>53.7</td>
<td>+8.3</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>45.8</td>
<td>50.7</td>
<td>+4.9</td>
<td>37</td>
</tr>
<tr>
<td>4 About the right amount</td>
<td>50.2</td>
<td>60.6</td>
<td>+10.4</td>
<td>176</td>
</tr>
<tr>
<td>5</td>
<td>60.4</td>
<td>68.9</td>
<td>+8.5</td>
<td>123</td>
</tr>
<tr>
<td>6 Increase defense spending a little</td>
<td>64.3</td>
<td>73.3</td>
<td>+9.1</td>
<td>151</td>
</tr>
<tr>
<td>7 Increase defense spending a lot</td>
<td>70.8</td>
<td>80.6</td>
<td>+9.8</td>
<td>142</td>
</tr>
<tr>
<td><strong>Lower Knowledge Respondents</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Decrease defense spending a lot</td>
<td>37.0</td>
<td>43.6</td>
<td>+6.6</td>
<td>18</td>
</tr>
<tr>
<td>2 Decrease defense spending a little</td>
<td>51.2</td>
<td>63.4</td>
<td>+12.2</td>
<td>29</td>
</tr>
<tr>
<td>3</td>
<td>53.8</td>
<td>64.5</td>
<td>+10.7</td>
<td>21</td>
</tr>
<tr>
<td>4 About the right amount</td>
<td>53.8</td>
<td>64.8</td>
<td>+11.0</td>
<td>92</td>
</tr>
<tr>
<td>5</td>
<td>60.7</td>
<td>69.4</td>
<td>+8.7</td>
<td>70</td>
</tr>
<tr>
<td>6 Increase defense spending a little</td>
<td>64.7</td>
<td>75.2</td>
<td>+10.5</td>
<td>85</td>
</tr>
<tr>
<td>7 Increase defense spending a lot</td>
<td>65.2</td>
<td>75.8</td>
<td>+10.6</td>
<td>81</td>
</tr>
<tr>
<td><strong>Higher Knowledge Respondents</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Decrease defense spending a lot</td>
<td>33.6</td>
<td>30.4</td>
<td>−3.2</td>
<td>14</td>
</tr>
<tr>
<td>2 Decrease defense spending a little</td>
<td>35.6</td>
<td>37.3</td>
<td>+1.7</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>35.3</td>
<td>32.5</td>
<td>−2.8</td>
<td>16</td>
</tr>
<tr>
<td>4 About the right amount</td>
<td>46.3</td>
<td>56.1</td>
<td>+9.8</td>
<td>84</td>
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<td>5</td>
<td>60.0</td>
<td>68.1</td>
<td>+8.1</td>
<td>53</td>
</tr>
<tr>
<td>6 Increase defense spending a little</td>
<td>63.8</td>
<td>71.0</td>
<td>+7.2</td>
<td>66</td>
</tr>
<tr>
<td>7 Increase defense spending a lot</td>
<td>78.2</td>
<td>86.9</td>
<td>+8.7</td>
<td>61</td>
</tr>
</tbody>
</table>

**Source.**—2000–2002 NES Panel Study.

**Note.**—Entries in the first two columns are mean thermometer ratings. The 2000 NES survey contained five questions probing objective political knowledge. Those who correctly answered less than 2/5 of the questions they were asked were categorized as low knowledge. Those who correctly answered 2/5 or more the questions they were asked were categorized as high knowledge.

This period induced priming. To test this, I start by examining some simple nonparametric comparisons of Bush’s thermometer ratings over time. Using nonparametric data visualization techniques first helps prevent specification errors when more complicated parametric models are eventually employed, increasing the reliability of the results (Achen 1999, 2002).

The top section of table 1 presents the mean Bush thermometer ratings in 2000 and 2002, with respondents separated by the defense spending preferences they expressed in 2000. It then shows the average change in thermometer ratings for each defense opinion grouping. The results suggest that changes in support

19. The average change in thermometer ratings and the change in the average are mathematically equivalent.
for Bush are weakly related to defense policy predispositions. Ratings of Bush increased by around 10 degrees among those who thought defense spending should be increased or stay the same. Among those who thought defense spending should be decreased, there is a notably smaller increase in support for Bush. Among these three categories, average ratings of Bush increased by 2.9, 8.3, and 2.3 degrees, suggesting only moderate priming of defense predispositions.

I am not just interested in looking for evidence of priming, but also in examining whether the effect depends on individuals’ prior political awareness. To that end, I replicate the above analysis, but divide respondents by political knowledge. In the 2000 survey, respondents were asked five factual knowledge questions about politics. The middle section of table 1 includes only respondents who answered none or one question correctly, while the lower section includes respondents who answered two, three, four, or five questions correctly. This division into high awareness and low awareness keeps the two groups as evenly sized as possible.

While the evidence in the middle and lower sections of table 1 is far from unambiguous, it does suggest that priming is related to prior political awareness. Among those with less political awareness, there is little evidence of priming. All categories of defense preferences except the very most dovish increased their average ratings of Bush by close to 10 degrees, while the most dovish category still increased its rating by 6.6 degrees. The situation is different among those with more political awareness. Among these respondents, there appears to be a relationship between defense predispositions and change in their ratings of Bush. Among the three categories that desired more defense spending, average ratings increased by between 7.2 and 8.7 degrees. Those who were satisfied with defense spending increased their ratings by a slightly larger 9.8 degrees. But among the three categories that preferred less defense spending, average changes ranged from an increase of only 1.7 degrees to a decrease of 3.2 degrees.

As already noted, this initial examination of the data has serious limitations. Most importantly, it does not control for possible priming in other issue areas. However, its findings suggest several patterns to look for in subsequent, more complicated analyses. It suggests that that the events of 2000–2002 may have primed defense policy predispositions only among politically aware members of the public. But rather than being unaffected by the events of these two years, the less politically aware seem to have experienced sizable increases in support for Bush with little relationship to their defense preferences. In the terminology outlined above, those with lower prior political awareness experienced more of an ordinary rally, while those with higher prior political awareness experienced a (much smaller) rally, but more ordinary priming.

To address some of the weaknesses of the nonparametric explorations of the data, it is helpful to use multivariate parametric modeling. In doing so, I again use the panel data to reduce the likelihood that the results will be biased by endogeneity. To start, I specify two regression models in which thermometer
ratings of George W. Bush are a function of a series of attitudes measured in 2000. In the first model, these variables predict Bush ratings in 2000, while in the second model they predict ratings in 2002. If the coefficient on a particular variable is larger in the model predicting 2002 ratings, it suggests that support for Bush increasingly sorted itself according to this prior attribute. For example, if defense policy predispositions were primed, I would expect the coefficient on defense preferences to increase between the first and the second model.

Table 2 tests this prediction. As expected, the relationship between defense preferences and evaluations of George W. Bush strengthened between 2000 and 2002. The coefficient grew in size by 6.61 degrees. Also, the coefficient on party identification decreased by 6.56 degrees, indicating, as expected, that party identification became less related to evaluations of Bush and the intercept increased by 7.67, reflecting the general increase in ratings of Bush.

Based on my nonparametric exploration of the data, I expect the priming of defense predispositions to depend on respondents’ level of political awareness. In table 3, I test this expectation by performing the same analysis as in table 2, but separate the data by political knowledge. As expected, priming of defense predispositions is strong only among the highly politically aware. Among the low prior political knowledge group, those who wanted to increase defense spending “a lot” in 2000 rated Bush 10.03 degrees more favorable than those who wanted to decrease defense spending “a lot.”

---

Table 2. Change in Predictors of Bush Evaluations in 2000 and 2002

<table>
<thead>
<tr>
<th>Years:</th>
<th>2000</th>
<th>2002</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defense spending</td>
<td>14.62**</td>
<td>21.23**</td>
<td>+6.61*</td>
</tr>
<tr>
<td></td>
<td>(2.91)</td>
<td>(3.05)</td>
<td>(4.22)</td>
</tr>
<tr>
<td>Government services</td>
<td>-0.66</td>
<td>2.29</td>
<td>+2.95</td>
</tr>
<tr>
<td></td>
<td>(2.73)</td>
<td>(2.86)</td>
<td>(3.95)</td>
</tr>
<tr>
<td>Abortion</td>
<td>11.60**</td>
<td>8.69**</td>
<td>-2.92</td>
</tr>
<tr>
<td></td>
<td>(2.21)</td>
<td>(2.31)</td>
<td>(3.20)</td>
</tr>
<tr>
<td>Aid to blacks</td>
<td>4.92**</td>
<td>4.78**</td>
<td>-0.14</td>
</tr>
<tr>
<td></td>
<td>(2.39)</td>
<td>(2.50)</td>
<td>(3.46)</td>
</tr>
<tr>
<td>Party identification</td>
<td>41.32**</td>
<td>34.76**</td>
<td>-6.56**</td>
</tr>
<tr>
<td></td>
<td>(2.49)</td>
<td>(2.61)</td>
<td>(3.60)</td>
</tr>
<tr>
<td>Intercept</td>
<td>20.96**</td>
<td>28.63**</td>
<td>+7.67**</td>
</tr>
<tr>
<td></td>
<td>(2.27)</td>
<td>(2.38)</td>
<td>(3.29)</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.45</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>Standard error of regression</td>
<td>20.21</td>
<td>20.95</td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>707</td>
<td>707</td>
<td></td>
</tr>
</tbody>
</table>

NOTE.—Entries are ordinary least squares regression coefficients with standard errors in parentheses.**$p < .05$, *$p < .10$ for one-tailed tests.
who wanted to decrease spending “a lot.” By 2002, this relationship increased in size by only 3.86 degrees to 13.89. Among those with high prior political knowledge, those who wanted defense spending increased “a lot” in 2000 rated Bush 20.28 degrees higher than those who wanted to decrease spending “a lot.” By 2002, this relationship had increased by 9.40 degrees to 29.68.

Other results reported in table 3 are consistent with expectations. As in table 2, there is some evidence that partisanship became less salient over this time period. Its coefficient decreases among both high- and low-knowledge groups, though the smaller sample size in each group causes neither decrease to be statistically significant. In addition, the intercept increases by 13.76 degrees among the less politically aware, but only by an insignificant 1.59 among the more politically aware. This is consistent with table 1’s finding that the less politically aware experienced only an ordinary rally.

There are several additional caveats to note here. First, among all respondents in table 2, the increase in the coefficient on defense spending is only marginally statistically significant ($t = 1.57$, one-tailed $p = .058$). However, this may be understandable given that the data combine the less politically aware who experi-

### Table 3. Change in Predictors of Bush Evaluations in 2000 and 2002 by Political Knowledge

<table>
<thead>
<tr>
<th>Years:</th>
<th>Low knowledge</th>
<th></th>
<th>High knowledge</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Defense spending 2000</td>
<td>10.03**</td>
<td>13.89** +3.86</td>
<td>20.28**</td>
<td>29.68** +9.40*</td>
</tr>
<tr>
<td></td>
<td>(3.84)</td>
<td>(3.97) (5.52)</td>
<td>(4.57)</td>
<td>(4.65) (6.52)</td>
</tr>
<tr>
<td>Government services 2000</td>
<td>0.27</td>
<td>3.34 +3.07</td>
<td>–3.52</td>
<td>-1.13 +2.39</td>
</tr>
<tr>
<td></td>
<td>(3.62)</td>
<td>(3.74) (5.21)</td>
<td>(4.37)</td>
<td>(4.45) (6.23)</td>
</tr>
<tr>
<td>Abortion 2000</td>
<td>11.89**</td>
<td>4.32* -7.57**</td>
<td>9.76**</td>
<td>12.26** +2.49</td>
</tr>
<tr>
<td></td>
<td>(2.94)</td>
<td>(3.03) (4.22)</td>
<td>(3.43)</td>
<td>(3.49) (4.89)</td>
</tr>
<tr>
<td>Aid to blacks 2000</td>
<td>2.28</td>
<td>0.31 -1.97</td>
<td>8.76**</td>
<td>9.70** +0.94</td>
</tr>
<tr>
<td></td>
<td>(3.11)</td>
<td>(3.21) (4.47)</td>
<td>(3.83)</td>
<td>(3.90) (5.47)</td>
</tr>
<tr>
<td>Party identification 2000</td>
<td>38.61**</td>
<td>32.06** -6.55</td>
<td>44.85**</td>
<td>38.99** -5.85</td>
</tr>
<tr>
<td></td>
<td>(3.50)</td>
<td>(3.62) (5.03)</td>
<td>(3.53)</td>
<td>(3.60) (5.04)</td>
</tr>
<tr>
<td>Intercept</td>
<td>27.41**</td>
<td>41.16** +13.76**</td>
<td>13.80**</td>
<td>15.39** +1.59</td>
</tr>
<tr>
<td></td>
<td>(3.30)</td>
<td>(3.40) (4.74)</td>
<td>(3.10)</td>
<td>(3.16) (4.42)</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.37</td>
<td>0.27</td>
<td>0.56</td>
<td>0.56</td>
</tr>
<tr>
<td>Standard error of regression</td>
<td>20.77</td>
<td>21.44</td>
<td>19.15</td>
<td>19.52</td>
</tr>
<tr>
<td>Number of observations</td>
<td>396</td>
<td>396</td>
<td>311</td>
<td>311</td>
</tr>
</tbody>
</table>

**SOURCE.**—2000–2002 NES Panel Study.

**NOTE.**—Entries in columns 1, 2, 4, and 5 are ordinary least squares regression coefficients with standard errors in parentheses. Entries in columns 3 and 6 are differences in coefficient size with standard errors in parentheses.

**p < .05, *p < .10 for one-tailed tests.**
enced almost no priming with the highly politically aware who seem to have experienced priming. However, estimating priming separately for different levels of political knowledge puts a heavy strain on the 707 panel respondents who answered all the relevant survey questions, increasing the uncertainty of all inferences. Splitting the data into low- and high-knowledge groups in table 3 leaves groups of only 396 and 311 respondents. Priming of 3.86 (with a standard error of 5.52) among the low knowledge group is clearly not distinguishable from zero. But even among the high-knowledge group, while priming of 9.40 is a larger estimate than among the whole sample or the low awareness respondents, the small sample size means it is still estimated with a high degree of uncertainty ($t = 1.41$, one-tailed $p = .075$). So while the data do suggest that priming occurred among those with high prior political awareness but not among the less aware, the limitations of the data require some caution.21

Another way to illustrate the same effects documented above is to more explicitly model the change in evaluations of Bush over time. I do this by estimating a regression model where thermometer ratings in 2002 are a function of thermometer ratings in 2000 and the same series of explanatory variables used in tables 2 and 3. If changes in ratings of Bush between 2000 and 2002 are not related to these attributes, their coefficients should be indistinguishable from zero with only lagged (2000) ratings of Bush predicting 2002 ratings. However, if change in Bush evaluations is related to any of these attributes, their coefficients should be different from zero. For example, if attitudes towards Bush become more correlated with defense policy predispositions over time, the coefficient on defense spending preferences should be positive.

The first column of table 4 tests this prediction. The results show that, even controlling for 2000 evaluations of Bush and other attitudes, defense policy predispositions are important predictors of 2002 evaluations. The model in the second column of table 4 tests whether this priming of defense predispositions is dependent on one’s political awareness by including the interaction between defense spending preferences and political knowledge as an explanatory variable. Consistent with the results of tables 1 and 3, the interaction term is large and statistically significant while the coefficient on the main effect of defense preferences is reduced. This reflects the similar finding in the above analyses

21. While it is correct to say that the estimate of priming is marginally statistically significant among the high-knowledge group and not significant among the low knowledge group, it would be incorrect to say that there is significantly more priming among those with high political knowledge. To test if priming is significantly greater among those with higher political awareness (and use the entire political knowledge scale), I compared the size of coefficients in two parallel models similar to those in table 2, but included in the models political knowledge and an interaction between political knowledge and defense spending preferences. While the size of the coefficient on the interaction term increases between the two models, the standard error on this increase is large. This implies that despite significant priming among the highly politically aware, and small, statistically insignificant priming among the less politically aware, the difference in the magnitude of priming between these groups is not statistically significant. For more on this distinction, see Gelman and Stern (2006).
Table 4. Predispositions and Public Support for George W. Bush 2000–2002

<table>
<thead>
<tr>
<th></th>
<th>Predicting 2002 Bush thermometer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Bush thermometer 2000</td>
<td>0.42**</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
</tr>
<tr>
<td>Political knowledge 2000</td>
<td>−8.67**</td>
</tr>
<tr>
<td></td>
<td>(2.58)</td>
</tr>
<tr>
<td>Defense spending 2000</td>
<td>15.13**</td>
</tr>
<tr>
<td></td>
<td>(2.81)</td>
</tr>
<tr>
<td>Government services 2000</td>
<td>4.32*</td>
</tr>
<tr>
<td></td>
<td>(2.65)</td>
</tr>
<tr>
<td>Abortion 2000</td>
<td>2.15</td>
</tr>
<tr>
<td></td>
<td>(1.98)</td>
</tr>
<tr>
<td>Aid to blacks 2000</td>
<td>2.19</td>
</tr>
<tr>
<td></td>
<td>(2.28)</td>
</tr>
<tr>
<td>Party identification 2000</td>
<td>17.65**</td>
</tr>
<tr>
<td></td>
<td>(2.80)</td>
</tr>
<tr>
<td>Defense spending × Political knowledge</td>
<td>23.40**</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>25.59**</td>
</tr>
<tr>
<td></td>
<td>(3.42)</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.51</td>
</tr>
<tr>
<td>Standard error of regression</td>
<td>19.17</td>
</tr>
<tr>
<td>Number of observations</td>
<td>707</td>
</tr>
</tbody>
</table>


NOTE.—Entries are ordinary least squares regression coefficients with standard errors in parentheses.

**p < .05, *p < .10 for two-tailed tests.

that priming was minimal among those low in political awareness, but strong among the highly politically aware.\(^{22}\) The fact that the simple nonparametric table and two alternative regression specifications produce a very similar picture of the relationship between defense predispositions, prior political awareness

22. While evidence of priming among the highly political aware is consistent across tables 2 through 4, estimates of its magnitude differ. The models in tables 2 and 3 produce notably smaller estimates of priming than the models in table 4. I suspect these differences result from the extent to which measurement error biases the estimates in all analyses to different (and unknown) degrees. Below in Note 24, I discuss my attempts to check robustness by adjusting for measurement error as well as possible with these data. However, as I note there, all of these adjustments are incomplete, failing to account for measurement error biases entirely. While the finding of priming and its relationship to political awareness is robust to every adjustment, the magnitude of priming still varies across specifications. My conclusion is that, unfortunately, these data are simply of insufficient quality to produce a precise estimate of the magnitude of priming here.
and changing evaluations of Bush gives me greater confidence in this main result.23,24,25

23. There is a third way to parametrically model the priming of attitudes over time using panel data. Following the lead of Edwards and Swenson (1997), one could alter the models in table 4 by not including 2000 thermometer ratings as an explanatory variable and instead use change in thermometer ratings as the dependent variable. I tried this method and found substantively similar results.

24. A possible source of bias in the results in tables 2, 3, and 4 is measurement error. In a multiple regression, measurement error in any of the explanatory variables can bias all coefficient estimates in any direction (Achen 1983). To rule out this alternative explanation, I checked to ensure the results are robust when measurement error is accounted for. Two ways to reduce measurement error are using instrumental variables or errors-in-variables regression (Bartels 1993; Wooldridge 2003, 503–505). However, it is not possible to use either of these techniques exclusively with these data. Using errors-in-variables regression requires one to know the reliability of each explanatory variable. These reliabilities can only be calculated if the survey questions are asked in three successive waves of a panel survey (Heise 1969; Wiley and Wiley 1970; Bartels 2006b). But the questions measuring defense, government services, abortion, and “aid to blacks” preferences are not asked with the split-design format (see the Appendix) in any previous or subsequent NES panel study. It is also not feasible to use instrumental variables to correct for measurement error in all variables. For questions that were asked in both 2000 and 2002, one could use 2002 responses, instrumented with 2000 responses. However, for questions that were not asked in 2002 (such as the political knowledge battery) or where using instrumented 2002 responses is not feasible (as with lagged Bush thermometer ratings), there are no instruments that come even close to satisfying the exogeneity assumption.

Since neither the errors-in-variables regression nor instrumental variables technique is ideal for these data, I adopted a hybrid approach. Using an errors-in-variables regression model, I adjusted for measurement error in 2000 Bush thermometer ratings and political knowledge. For the other variables, I used 2002 responses, instrumented with the 2000 responses. This produces biased standard errors for the instrumented variables, but unbiased coefficient estimates. The results of this imperfect robustness check are consistent with the results in tables 2 and 3. When parallel regression models are used, as in tables 2 and 3, there is still a notable increase in the intercept and the coefficient on defense preferences, and a decrease in the coefficient on party identification. When a single model is used, as in table 4, there is still a large positive interaction between defense predispositions and political knowledge, a small positive main effect of defense predispositions and a large negative main effect of political knowledge. The only notable differences when these measurement error correction techniques are used are, in the model similar to those in table 4, an increase in the coefficient on lagged thermometer ratings and reduction in the party identification coefficient. The party identification coefficient becomes so small that it is no longer statistically significant. This is consistent with prior research showing that accounting for measurement error increases estimates of the stability of political attitudes and decreases estimates of the effect of party identification (Achen 1975; Bartels 1993).

This partially reduces the one clear discrepancy between the two models. The parallel regression setup (and Hetherington and Nelson’s (2003) study) indicate that party identification became less related to presidential evaluations during this time period. However, the positive coefficients on party identification in table 4 give the impression that party identification became more strongly related to evaluations of George W. Bush over this time. The imperfect corrections for measurement error employed here indicate that at least a large portion of this discrepancy can be explained by measurement error. When these corrections are employed, the two models do not entirely agree, but their disagreement is less dramatic, with the models from tables 2 and 3 still indicating that party identification declined in importance and the models from table 4 indicating that its importance stayed approximately constant.

25. Miller and Krosnick’s (2000) laboratory experiments suggest another prediction, that politically knowledgeable individuals who also trust the media will be the most influenced by priming.
One advantage of the models in table 4 is that one can use them to simulate how evaluations of George W. Bush change over time for different respondents. In figure 2, I simulate expected thermometer ratings of Bush in 2002 for a hypothetical individual who had an average rating (56.1 degrees) of Bush in 2000. To see how defense predispositions and political awareness influence opinion change, I simulate this person’s 2002 rating of Bush for different values of these variables, when all other explanatory variables are held constant at their means. I use the CLARIFY program to generate expected values and their confidence intervals based on 10,000 simulations (King, Tomz, and Wittenberg 2000; Tomz, Wittenberg, and King 2003). In figure 2, the lower set of error bars show 90 percent confidence intervals on expected 2002 thermometer ratings for someone with the highest level of political awareness but varying defense predispositions. They show evidence of priming among the politically aware. Hawkish predispositions lead to an increase in Bush ratings while dovish predispositions lead to a decrease. It is a different story among the politically unaware. The top series of error bars shows predicted ratings for someone with the lowest level of political awareness. Here, there is very little evidence of priming, but rather a notable increase in thermometer ratings of Bush in every category of defense policy predispositions. Only among those with the most hawkish predispositions, do ratings change in similar ways regardless of prior political awareness. The differences between the aware and unaware are the
largest among the doves. Politically aware doves approved of Bush less, while unaware doves approved of Bush more. It is useful to compare the expected values in figure 2 with the nonparametric analyses in table 1. While the raw data have many more irregularities than the expected values, both present a similar picture of the role of political awareness in moderating priming and rally effects.

**Discussion**

My results reaffirm the assertion that “differences among citizens in their levels of political conceptualization and awareness are as consequential as differences in values and interests” (Zaller 1992, p. xi). While previous research documented a surge in support for George W. Bush during this time period (Hetherington and Nelson 2003), the aggregate patterns in public opinion masked important heterogeneity in responses to the initial phase of the war on terrorism. Among those with high levels of political awareness, the change in their evaluations of Bush largely depended on their defense policy predispositions. Those predisposed to approve of the new, more aggressive foreign policy the United States adopted after September 11, 2001, increased their approval of President Bush. Those predisposed to prefer a less hawkish defense policy tended to somewhat decrease their ratings of Bush. However, the less politically sophisticated seemed less willing or able to bring their defense predispositions to bear in adapting their presidential evaluations to this new environment. Those low in political sophistication significantly increased their support for George W. Bush with almost no regard for their defense policy predispositions.

These findings are only partially consistent with previous research on political persuasion. The finding that less politically aware individuals were the only ones to experience an ordinary rally is consistent with Baum’s (2003) study of rallies and with previous findings that very intense media messages are most influential on the least politically aware (Zaller 1992, pp. 243–244). However, my results regarding political awareness and the ordinary rally are inconsistent with Edwards and Swenson’s (1997) analysis of the public’s reaction to Clinton’s 1993 air strikes on Iraq. In that circumstance, they found no relationship between political awareness and the ordinary rally. The finding that priming is

26. This is the implication of the large negative coefficient on the main effect of political knowledge in column 2 of table 4.
27. The major difference between the results from the models in table 4 and the results of previous models is the apparent priming of party identification, which contrasts with the apparent depriming of party identification evident in tables 2 and 3. The most likely cause of the discrepancy is that the low level of measurement error in party identification compared to other attitude measure inflates its coefficient in table 4. (Its coefficient may also be inflated in the regression models in tables 2 and 3. But the upward bias is similar in both the models of 2000 and 2002 thermometer ratings preventing it from effecting estimates of priming.) For more details, see Note 24.
more prevalent among highly politically aware individuals is consistent with Edwards and Swenson’s (1997) survey evidence and Miller and Krosnick’s (2000) laboratory study, but inconsistent with several other survey-based studies (Krosnick and Kinder 1990; Krosnick and Brannon 1993).

Differences between the patterns found here and those in earlier studies may be at least partially the result of differences in methodology. With the exception of Edwards and Swenson (1997) and Lenz (2004, 2006), previous studies of priming have not used panel data to differentiate between the effect of predispositions on presidential or candidate approval and the adjusting of preferences to rationalize pre-existing presidential or candidate evaluations. As Lenz (2004, 2006) shows, when panel data is used to sort out the direction of causation, the findings of previous research into the effect of security crises on public opinion often appear in need of revision.28 Future work, either analyzing new data or re-analyzing published data with greater attention to the direction of causation, should investigate whether the patterns found here are more widespread.

Even though the events that marked the beginning of the war on terrorism were covered in the media with rare and perhaps unprecedented intensity, the evidence presented above is consistent with a vast amount of political behavior theorizing holding that less politically aware people respond to politics innocent of ideology or values, while the more aware respond in terms of their values. While Iyengar and Kinder (1987, 5) describe subjects of priming as “victims,” in this case one could also think of priming as a reasonable response to dramatic changes in the political landscape. As it (unexpectedly) became clear that security issues would be a central part of George W. Bush’s presidency, a conscientious response could be to increasingly base one’s presidential evaluation on whether the President’s views on this issue matched one’s preferences. The normative implications of the ordinary rally experienced by the less politically aware are less clear. It could be thought of as either an example of dangerous gullibility or as a sensible response to a temporary national crisis. Reflexive support for national leaders in times of threat may allow those leaders to take unpopular and even undemocratic actions, threatening the public’s sovereignty over its government. On the other hand, there may be certain times when the nation is under such serious threat that policy disagreements ought to be temporarily set aside, so the president can use his or her best judgment to protect the nation and be held accountable for that judgment only at a later date. In this perspective, a rally in support of the president would be a sensible public response. In the end, a normative assessment of whether rallying or being primed are sensible public responses to a national crisis may depend on the importance one assigns to delegate versus Burkean notions of representation.

28. For example, in contrast to Krosnick and Kinder (1990) and Krosnick and Brannon (1993), Lenz (2004, 2006) finds no evidence of priming during the Iran-Contra scandal or the first Gulf War. Increases in the correlations between foreign policy opinions and presidential evaluations appear to be entirely the result of people adjusting the former to match the later.
one’s belief about the trustworthiness of the person holding the presidency at the time of the crisis to behave in good faith, and on the nature of that particular crisis.

Conclusion

The dramatic events on and after September 11, 2001 offer a rare opportunity to examine how presidential approval responds to a severe national security crisis. This paper shows how the public’s reaction to those dramatic events can speak to existing scholarly debates, often challenging previous scholarship. It also demonstrates the importance of examining how both rally and priming effects are moderated by political awareness. In this case, my analysis suggests that priming predominated among the highly politically aware, while those low in political awareness experienced a rally in support for the President. Finally, this paper illustrates the value of panel data for allowing researchers to understand the dynamics of opinion change over time.

Appendix

FEELING THERMOMETER QUESTION WORDING

Approximately half of the 2000 NES interviews were conducted in person and the other half over the telephone. Over the telephone, respondents were asked, “I’d like to get your feelings toward some of our political leaders and other people who are in the news these days. I’ll read the name of a person and I’d like you to rate that person using something we call the feeling thermometer. The feeling thermometer can rate people from 0 to 100 degrees. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person. Ratings between 0 degrees and 50 degrees mean that you don’t feel favorable toward the person. Rating the person at the midpoint, the 50-degree mark, means you don’t feel particularly warm or cold toward the person. If we come to a person whose name you don’t recognize, you don’t need to rate that person. Just tell me and we’ll move on to the next one. The next person is George W. Bush.”

In person, respondents were asked, “Please look at page 2 of the booklet. I’d like to get your feelings toward some of our political leaders and other people who are in the news these days. I’ll read the name of a person and I’d like you to rate that person using something we call the feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person. Ratings between 0 degrees and 50 degrees mean that you don’t feel favorable toward the person and that you don’t care too much for that person. You would rate the person at the 50-degree mark if you don’t feel particularly warm or cold toward the person. If we come to a
person whose name you don’t recognize, you don’t need to rate that person. Just tell me and we’ll move on to the next one. How would you rate George W. Bush?"

In 2002, respondents were all interviewed by telephone and read the same preface as in the 2000 phone interviews, followed by the question, “Where on that thermometer would you rate George W. Bush?”

DEFENSE SPENDING QUESTION WORDING

In telephone interviews, respondents were asked, “Some people believe that we should spend much less money for defense. Others feel that defense spending should be greatly increased. Do you have an opinion on this issue or haven’t you thought much about this? Do you feel the government should decrease defense spending, increase defense spending, or is the government spending on defense about the right amount now? Should the government decrease/increase defense spending a lot or a little?”

In person, respondents were asked, “Some people believe that we should spend much less money for defense. Suppose these people are at one end of a scale, at point 1. Others feel that defense spending should be greatly increased. Suppose these people are at the other end, at point 7. And, of course, some other people have opinions somewhere in between, at points 2, 3, 4, 5, or 6. Where would you place yourself on this scale, or haven’t you thought much about this?”

In 2002, when all interviews were conducted by telephone, respondents were asked, “What about defense? Should federal spending on defense be increased, decreased, or stay about the same?” No further branching questions were asked in the 2002 survey, resulting in only three response categories.

GOVERNMENT SERVICES QUESTION WORDING

In telephone interviews, respondents were asked, “Some people think the government should provide fewer services even in areas, such as health and education in order to reduce spending. Other people feel it is important for the government to provide many more services even if it means an increase in spending. Which is closer to the way you feel or haven’t you thought much about this? Should the government reduce/increase services and spending a great deal or (reduce/increase services and spending) only some?”

In person, respondents were asked, “Some people think the government should provide fewer services even in areas, such as health and education in order to reduce spending. Suppose these people are at one end of a scale, at point 1. Other people feel it is important for the government to provide many more services even if it means an increase in spending. Suppose these people are at the other end, at point 7. And, of course, some other people have opinions
somewhere in between, at points 2, 3, 4, 5 or 6. Where would you place yourself on this scale, or haven’t you thought much about this?”

ABORTION QUESTION WORDING

In telephone interviews, respondents were asked, “There has been some discussion about abortion during recent years. I am going to read you a short list of opinions. Please tell me which one of the opinions best agrees with your view? One, by law, abortion should never be permitted. Two, the law should permit abortion only in case of rape, incest or when the woman’s life is in danger. Three, the law should permit abortion for reasons other than rape, incest or danger to the woman’s life, but only after the need for abortion has been clearly established. Four, by law, a woman should always be able to obtain an abortion as a matter of personal choice.”

In person, respondents were asked, “There has been some discussion about abortion during recent years. Which one of the opinions on this page best agrees with your view? You can just tell me the number of the opinion you choose [the options given in the telephone version are shown on the page].”

GOVERNMENT AID TO BLACKS QUESTION WORDING

In telephone interviews, respondents were asked, “Some people feel that the government in Washington should make every effort to improve the social and economic position of blacks. Others feel that the government should not make any special effort to help blacks because they should help themselves. Which is closer to the way you feel, or haven’t you thought much about this? Should the government help blacks to a great extent or only to some extent? Should blacks have to help themselves to a great extent or only to some extent?

In person, respondents were asked, “Please look at page 10 of the booklet. Some people feel that the government in Washington should make every effort to improve the social and economic position of blacks. (Suppose these people are at one end of a scale, at point 1.) Others feel that the government should not make any special effort to help blacks because they should help themselves. (Suppose these people are at the other end, at point 7.) And, of course, some other people have opinions somewhere in between, at points 2, 3, 4, 5, or 6. Where would you place yourself on this scale, or haven’t you thought much about this?”

PARTY IDENTIFICATION QUESTION WORDING

All respondents were asked, “Generally speaking, do you think of yourself as a Republican, a Democrat, an Independent, or what? [If identifies as Republican or Democrat] Would you call yourself a strong Democrat/Republican or a not
very strong Democrat/Republican? [If identifies as independent] Do you think of yourself as closer to the Republican Party or to the Democratic party?"

TRUST IN MEDIA QUESTION WORDING

All respondents were asked, “How much of the time do you think you can trust the media to report the news fairly? Just about always, most of the time, only some of the time, or almost never?”

POLITICAL KNOWLEDGE QUESTION WORDING

The series of political knowledge questions were prefaced with the statement “Now we have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers, and the like.”

Respondents were randomly assigned to receive one of the two possible versions of the political knowledge questions. Those who were selected to receive the standard version of the questions were asked, “The first name is Trent Lott. What job or political office does he now hold? William Rehnquist. What job or political office does he now hold? Tony Blair. What job or political office does he now hold? Janet Reno. What job or political office does she now hold?”

Those who were selected to receive the “experimental” versions were asked, “The first name is Trent Lott. What job or political office does he now hold? [If respondent says “don’t know”] Well, what’s your best guess? William Rehnquist. What job or political office does he now hold? [If respondent says “don’t know”] Well, what’s your best guess? Tony Blair. What job or political office does he now hold? [If respondent says “don’t know”] Well, what’s your best guess? Janet Reno. What job or political office does she now hold? [If respondent says “don’t know”] Well, what’s your best guess?”

References


Predispositions and Public Support for the President


