NEWS FRAMING AND CUEING OF ISSUE REGIMES

EXPLAINING CLINTON'S PUBLIC APPROVAL IN SPITE OF SCANDAL

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Abstract During the period of exceedingly critical news coverage surrounding the Monica Lewinsky debacle, President Bill Clinton's job approval ratings were at some of the highest levels they reached during his tenure in office. Given this public response, many pollsters, pundits, and scholars argued that news coverage of the scandal must have been largely irrelevant to the public. Our view counters these claims by advancing a theory that recognizes that citizens' political preferences are influenced substantially by frames and cues provided by news media. To test our ideas, we draw upon three types of data, all from January 1993 to March 1999: (*a*) a longitudinal content analysis of major news media, (*b*) a time-trend of opinion polls on presidential job approval, and (*c*) monthly estimates of real disposable personal income, seasonally adjusted. Analyses reveal that news media emphasis upon and framing of certain issue regimes—specifically, coverage of the economy, general policy performance, and scandal—explained changes in mass evaluations of Clinton throughout his presidency, including the surprising trend during the "Lewinsky period." In particular, findings suggest that sustained support for Clinton can be explained as a complex counter-response—a backlash—to the framing of the scandal in terms of the strategic motives of conservative elites.

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News Framing and Cueing of Issue Regimes: Explaining Clinton's Public Approval in Spite of Scandal

Contrary to conventional wisdom and many models of media effects and public opinion, President Bill Clinton's approval ratings remained high—even slightly increased—during the period of critical news coverage surrounding the Monica Lewinsky debacle and subsequent impeachment debate. Pollsters, pundits, and scholars of American politics have offered various "theories" for this occurrence and more generally for the sizable changes in mass evaluations of Clinton's job performance over the course of his presidency. Many of these explanations focus on what might be termed "media-independent" variables. For example, National Public Radio political analyst Kevin Phillips (1999) opined that "when the Lewinsky mess broke in January 1998, voters actually rallied round; Clinton's ratings rose. That, I suspect, reflected the economy." Similarly, political scientist John Zaller (1998) speculated that sustained support for Clinton could be explained only by the absence of media effects—that is, opinion was anchored by Clinton's record of prosperity, domestic security, and moderate policies.

Although it is appealing to believe citizens were so measured in their response to the scandal, this viewpoint implies that "the media's relentless focus on the Lewinsky story was, in essence, just so much white noise that the public virtually ignored" (Lawrence, Bennett, and Hunt 1999, p. 4). In fact, opinion polls on approval ratings of congressional Republicans suggest that the opposite is the case. Republicans' ratings fell during the period of the Lewinsky scandal, with this counterresponse sharpest at the height of the impeachment process. This fact spurred a handful of commentators to speculate that Clinton's robust approval rating could be explained as a recoiling against the Republican Party, as opposed to a response rooted in support for the president (e.g., Brownstein 1999; Phillips 1999; Rothenberg 1998).

In this article, we argue that these prevailing accounts are incomplete. To say that the strong economy and/or the push for impeachment are sufficient to explain Clinton's sustained support ignores the role of mass media in constructing and conveying these considerations—that is, it neglects journalistic choices of language and perspectives through which a story is presented to the public. These news constructions, emphasizing certain details while omitting others, help to shape citizens' political perceptions and preferences by encouraging certain avenues of thought and action (Bennett 1993; Price, Tewksbury, and Powers 1997; Shah, Domke, and Wackman 1996). We therefore advance a theory of mass opinion that recognizes that citizens' opinions are substantially influenced by certain frames and cues contained in news coverage of key issue regimes (Mondak 1993; Pan and Kosicki 1997; Shah

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et al. 1999; Zaller 1992). Our theory attends to three pivotal issue regimes in news coverage of presidential politics: the economy, policy performance, and scandal.

To test our ideas we utilize the ideodynamic model, which attempts to predict public approval based upon media coverage (e.g., Fan 1988; Fan and Cook 2002). For this analysis, we draw upon three types of data, all from January 1993 (the start of Clinton's first term) through March 1999 (the end of the impeachment process): (*a*) a longitudinal content analysis of major news media, (*b*) a time-trend of opinion polls on presidential job approval, and (*c*) monthly estimates of real disposable personal income, seasonally adjusted. The ideodynamic model has predicted the public agenda and vote flows cross-nationally (e.g., Fan, Brosius, and Kepplinger 1994; Jasperson et al. 1998) but has not been used to predict public approval of a politician during such a long and turbulent period.

Issue Regimes and Political Judgment

Research has shown that news coverage can focus public attention on particular topics and, in so doing, alter the mix of cognitions that are most readily accessible when forming political judgments (Dalton, Beck, and Huckfeldt 1998; Domke, Shah, and Wackman 1998; Iyengar and Kinder 1987; Krosnick and Brannon 1993). This perspective takes as a given that a vast majority of citizens do not directly experience politics, nor do they hold strong, stable attitudes about many social topics; rather, people form attitudes "on the fly," often in response to particular features of the information environment (Iyengar 1991; Zaller 1992). In essence, contextual features serve as heuristics that allow individuals to make cognitive shortcuts when processing political information (Domke et al. 2000; Kuklinski and Hurley 1994; Mondak 1993). Emphasis on certain issues in news coverage is thought to prime the public to focus upon those considerations as standards for social judgment. Much research has demonstrated that citizens' evaluations of politicians are susceptible to such priming effects (e.g., Goidel, Shields, and Peffley 1997; Just et al. 1996; Mendelsohn 1996).

Consistent with this work, yet adopting a longitudinal perspective, Pan and Kosicki (1997) suggest that research on public opinion needs to pay closer attention to *issue regimes* that dominate news coverage of politics, particularly the president, for news reports on these common classes of coverage provide the basic standards citizens use to form and adjust their evaluations of politicians. Our extension of this perspective asserts that when an issue regime develops, two things occur: (1) particular *frames* (organizing devices used to construct news stories) and *cues* (labels and terms used to identify aspects of the news) become shared by political elites and journalists and grow commonplace in news coverage and (2) these components of news discourse

become particularly likely to be adopted by the mass public in forming their evaluations of politicians, fundamentally shifting the basis of judgment (see also Bennett and Manheim 1993; Johnston et al. 1992).

In particular, economic news coverage—specifically, emphasis upon favorable or unfavorable developments or indicators—may help shape evaluations of presidential job performance because it provides citizens with sociotropic criteria on which to judge the president. Scholars repeatedly have found that voters do not evaluate economic conditions through their own pocketbooks, focusing instead on national economic conditions (Feldman 1982; Kinder, Adams, and Gronke 1989; Lewis-Beck 1988). Although the informational demands of monitoring the state of the economy seem great, Kinder and Kiewiet (1981) suggest that "voters must only develop rough evaluations of national economic conditions" (p. 131). Thus, news media may either help "construct" a picture of the national economy through their reporting or function as a "conduit" through which economic information reaches citizens (Dalton, Beck, and Huckfeldt 1998). Regardless, coverage linking the president to economic conditions may be a predominant influence on citizens' assessments of political performance.

Consistent with this view, Hetherington (1996) found that the quantity of political information consumed by citizens in the 1992 presidential campaign helped to explain cross-sectional variation in evaluations of the national economy, which in turn influenced voting behavior. Likewise, Shah et al. (1999) demonstrated that coverage about the state of the U.S. economy was strongly predictive of citizens' candidate preferences in the 1984–96 presidential campaigns, even when accounting for the influence of other types of candidate coverage. These findings are not surprising if one accepts that the mass media have become the main source of information on national economic performance available to a broad cross section of Americans.

Similarly, research suggests that coverage of a president's general performance on policy issues plays a key role in molding approval ratings (Brody 1991). Iyengar and colleagues (see Iyengar 1991; Iyengar and Kinder 1987) have suggested that news emphasis on a variety of what might be termed "noneconomic" issues—for example, crime, energy, defense, pollution, and civil rights—can influence public support for politicians by highlighting their successes and failures. Such evaluations may be particularly likely in the context of the Lewinsky scandal, for as Hutchinson (1998) argues, key Democratic Party constituencies—racial minorities, women, and environmentalists—came to "see impeachment as a thinly disguised attempt to hammer the president for acting and speaking out on [progressive] causes." As this suggests, opinion may shift in line with coverage connecting policy performance to presidential character and standing (Traugott 1992). That is, coverage of a president's policy accomplishments—specifically, emphasis upon positive or negative achievements—may affect mass evaluations.

In addition, scholars have distinguished between the private and public

aspects of political performance—that is, "between the personal and the presidential" (Jamieson 1998, p. 21; also Lawrence, Bennett, and Hunt 1999). This distinction suggests that matters perceived as private—such as the president's affair with Lewinsky—may not influence citizens' evaluations of job performance. In fact, attacks against the president for such private indiscretions may foster a counterresponse from citizens, who have come to view such denunciations with cynicism (Cappella and Jamieson 1997). Thus, even though sex scandal coverage may be manifestly negative in valence, it may not necessarily produce disapproving evaluations of the president, clearly suggesting the need to be attentive to the framing of such content.

Framing of Scandal

Theories of framing suggest that news coverage can foster changes in public opinion by promoting particular definitions and interpretations of political issues (Price, Tewksbury, and Powers 1997). This perspective assumes that, when constructing a news story, journalists must choose from among a multitude of vantage points and voices. Shared sets of normatively grounded news values help organize coverage, amplifying certain perspectives while quelling others (Price and Tewksbury 1997). The frames adopted by news media then contend for resonance with members of the public, who respond as motivated tacticians, striving to serve the dual goals of efficiency and self-expression (Gamson 1992; Shah, Domke, and Wackman 1996). In essence, by organizing complex news topics around distinctive arguments and themes while concurrently downplaying others, journalists help to shape an issue's deeper meanings and implications for the public (Nelson, Oxley, and Clawson 1997; Shah 2001). With this in mind, we contend that the framing of scandal may powerfully influence opinion concerning presidential performance, especially during periods when it becomes a dominant issue regime, as was the case in the Lewinsky debacle.

Research on the strategic framing of news (Cappella and Jamieson 1997; Patterson 1994) suggests three potentially important ways in which journalists may have framed coverage of the Lewinsky scandal and subsequent political fallout: (1) in terms of Clinton's behaviors and his reactions to accusations of impropriety, (2) in terms of criticisms and attacks on the president by conservative opponents, and (3) in terms of the denouncements (usually by liberals) of efforts by Ken Starr and congressional Republicans to embarrass the president and remove him from office. Our analysis of news coverage, detailed below, supports this view. Although these frames of scandal coverage were negative of Clinton in a general sense, since they were prompted by an embarrassing scandal and led to a situation that the president would have preferred to avoid, they differed substantially in whether or not journalists questioned—at all, implicitly, or explicitly—the strategic motives behind the

accusations against Clinton. The *Clinton behavior frame* focused squarely on the president—that is, it organized news stories around the sexual nature of the indiscretion, Clinton's efforts to avoid discussing his relationship with Lewinsky, and the ongoing developments in the scandal as it moved toward impeachment. In marked contrast were the other two frames. The *conservative attack frame* emphasized the actions of Republican elites, in particular highlighting the role of Starr and the leadership of the House and Senate as critics of Clinton and architects of the partisan effort to remove him from office. The *liberal response frame* emphasized the implicit defense of Clinton, primarily though not exclusively by Democrats, in particular highlighting their claim that attacks on the president served an underlying conservative agenda—that is, that the enemies of Clinton were out to embarrass and discredit him in order to gain political advantage.

Interestingly, the latter two frames differ in terms of sources and central foci but are similarly suggestive—the former implicitly, the latter more explicitly—that the accusations and actions of conservative elites were driven by partisan politics. The liberal response frame, while arguing on behalf of Clinton indirectly, was not necessarily favorable to Clinton, since presidential loyalists preferred to present their response as a necessary corrective to Republican scheming rather than a declaration of support for Clinton. By treating Clinton's private failings as a given, Democratic leaders and Clinton friends privileged a presentation of themselves as guardians of the Constitution who had no choice but to defend U.S. democratic processes in the face of conservatives' efforts to "hijack the presidency." Time and again, presidential backers claimed that "Monicagate" differed substantively from Watergate, the last presidential scandal that seriously approached impeachment, in that the Lewinsky scandal was personal in nature and driven by partisan politics while Watergate was presidential in scope and thus deservedly produced a bipartisan reaction. Such rhetoric may have accomplished exactly what it seemingly was intended to do—persuade citizens that the impeachment process was part of a conservative agenda. More important, scandal coverage presented in terms of liberal critiques may have framed how the public came to understand conservative attacks on the president, propelling a cycle of argument and evidence concerning the Republicans' motives.

In this way, news coverage that focused on the efforts of conservative elites and their apparently strategic actions may have helped sustain Clinton, as citizens recoiled against what may have appeared to be self-serving attempts by Republicans to gain political power. Coverage presented in terms of the defensive responses of Democratic elites clearly promoted this frame for understanding the conservative attack scandal coverage. In turn, the attacks on Clinton by Ken Starr and Republican leaders implicitly provided support for the liberal critique that conservatives were overly aggressive in trying to discredit and then remove Clinton. As a result, it may be that conservative attack coverage, despite its negative valence, actually benefited Clinton in the

public mind and produced a backlash, moving opinion in the direction opposite the expected effect of the manifest news content. Such an outcome would be consistent with recent research that finds news coverage of partisan politicking antagonizes the public.

Specifically, Cappella and Jamieson (1997) report evidence that strategy framing is particularly likely to engender cynical responses from the public. That is, press attention to the game or strategy of politics—that is, a focus on competitive and tactical elements of governmental affairs, with particular attention to the motives and mastery of political actors—has been found to provoke hostile reactions among the citizenry (Jamieson 1992; Lawrence 2000; Patterson 1994). When news is presented through a strategic lens, the actions of political actors "are seen not as the by-product of a desire to solve social ills, redirect national goals, or create a better future for our offspring but are instead viewed in terms of winning" (Cappella and Jamieson 1997, p. 34). Thus, the reaction of individuals exposed to such frames is to mistrust the intentions of political elites and, perhaps, reinterpret and recoil against their perspectives (Beck 1991; Patterson 1994). We contend that scandal coverage framed in terms of conservative attacks and liberal responses worked together to generate such a counterresponse on the part of the public—in essence, Republicans' indictments confirmed liberals' protestations.

This potential outcome is supported by research on voters' responses to negative political advertising, which has found that an oft neglected consequence of such messages is to strengthen support for the attacked candidate (see Faber, Tims, and Schmitt 1990). The studies conducted on this topic—typically experiments—conclude that when an attack is seen as emanating from a clearly partisan source, supporters of the attacked politician become more likely to vote for the candidate, particularly when the source is seen as "mean-spirited" (Pinkleton 1998; Sonner 1998). Therefore, if the crisis were presented as originating from Clinton's opponents in the service of a political agenda, these frames may well have triggered a response in which citizens, particularly those who had a prior positive view of Clinton, strengthened their approval ratings.

In contrast, scandal coverage framed in terms of Clinton's behavior would seem likely to invite citizens to attribute responsibility for the crisis to Clinton, damaging public assessments of his job approval. It seems plausible that news coverage focusing primarily on Clinton's behavior at most only modestly persuaded the public because of its personal nature and the lack of a clear connection to public presidential performance. Nonetheless, of the three types of scandal coverage, it seems most likely to work against liberals' criticisms of conservatives' attacks. In these ways, then, framing of presidential scandal may shed light on the linkage between news coverage of the Clinton presidency and the sometimes surprising trends in his public approval.

Valence Models of Media Effects

Leading models of media effects on mass opinion suggest that the valence of news coverage exerts an influence over the course of public opinion (Fan 1988; Zaller 1992; see also Lodge and Stroh 1993). These perspectives are based on the intuitive premise that opinion about public issues and figures is a function of (*a*) the stability and level of previous opinion plus (*b*) the recruitment of those who did not approve but were persuaded by favorable coverage minus (*c*) the loss of those who did approve but were persuaded by unfavorable coverage. Consistent with this view, cues within coverage are thought to focus the attention of citizens on some subset of news content and thereby alter the mix of considerations used to form political judgments. In this way, certain types of favorable and unfavorable coverage may prove particularly influential on mass opinion (Fan, Brosius, and Kepplinger 1994; Shah et al. 1999).

Under typical conditions, simple valence models that account for salient cues may be adequate for explaining much of the change in mass opinion about presidential performance. During such periods, trends in coverage of the state of the economy may hold particular sway over citizens' evaluations of political leaders because economic coverage provides the public with sociotropic criteria on which to form political judgments (Pan and Kosicki 1997; Shah et al. 1999). We adopt this perspective for our modeling of Clinton's public approval prior to the outbreak of the Lewinsky scandal. Although we recognize that factors other than media coverage may influence mass evaluation of Clinton, we generally focused our analysis on press influence because our primary interest is whether news treatment of the president, particularly coverage focusing on the economy, can predict the distribution of opinion measured in national polls. In our initial model, then, we distinguish between economic and noneconomic media coverage of the president, positing that the valence of these two types of content had a persuasive effect on mass opinion during the course of much of Clinton's presidency. In addition, we include the monthly estimate of real disposable personal income (RDI) as a control variable in the model because this aggregate indicator of "pocketbook" economics should be unaffected by economic coverage.

Since the valence of press stories was assumed to be relevant to Clinton approval, news stories about Clinton were scored as described below for the numbers of paragraphs that were positive or negative regarding Clinton. News paragraphs are typically short, with journalistic norms dictating that each one contain a unifying idea, suggesting that the paragraph count is a reasonable indication of the presence of an idea in the media environment (Fan 1988; Roberts 1989). The paragraph counts, each one associated with the date of its story, were then used to predict Clinton approval using the ideodynamic model (Fan 1985) that extends the logic of the differential equation used to generate the logistic function for the diffusion of innovations (Hamblin,

Jacobsen, and Miller 1973). In the following paragraphs, we offer a brief description of the mathematical formulation of the ideodynamic model (for mathematical details, see the appendix in the electronic edition, http://www.journals.uchicago.edu/POQ/journal/index.html).

The modeling began with the conversion of the paragraph counts favorable to Clinton into favorable raw persuasive force functions describing the ability of the favorable persuasive information to convince Clinton skeptics to change their minds in the direction of Clinton approval. These and all other persuasive force functions are nonnegative in mathematical sign because they describe only information that can attract nonbelievers. Information unfavorable to Clinton was converted to con-Clinton raw persuasive force functions in an analogous fashion, again, nonnegative in mathematical sign because this information also acts to attract—in this case from Clinton approval to disapproval. The model deliberately avoids the subtraction of unfavorable paragraphs from favorable paragraphs because this subtraction implies that the two types of paragraphs have the same impact. However, as will be incorporated into the opinion modeling presented below, opinion movement should depend on both the amount of persuasive information and the size of the target population. For example, consider the extreme case of all people being supporters with no opponents at all. In this case, no amount of favorable information should be able to cause any opinion change in the favorable direction. In such a population, negative information would have maximal effects, because everyone is a potential convert. These considerations show that it is appropriate to subtract favorable and unfavorable information only when there are exactly as many supporters as opponents (app. sec. 4).

Each paragraph was given its maximum persuasive value on the date of its story with that value decreasing exponentially with a characteristic persistence constant. The result of a long half-life for this constant is that the public responds sluggishly to new information, with new decision making continuing to depend on old information. In contrast, a short half-life for persuasive information means that the public rapidly discards old information and instead uses new information in changing opinions. For this article, we use the consensus half-life of 1 day for the persistence constant because this parameter has been estimated in a number of prior empirical studies on contemporary issues and has consistently been shown to have such a short decay constant for erosion in the persuasive power of press stories (Fan 1988; Shah et al. 1999).

The combined raw persuasive force function for all news favorable to Clinton was the sum of the individual positive paragraphs, each one with its maximum value on its appearance date followed by an exponential decay with the 1-day half-life. The equivalent combined raw persuasive force function for negative news was computed from unfavorable paragraphs. Note that the half-life gives the ability of a news story to continue to change opinion over time as it diffuses through interpersonal networks and thus has nothing

to do with the persistence of changed opinion. In fact, the ideodynamic model postulates that opinion, once changed, stays at the new value for the indefinite future until new information arrives to change minds within the population once again. This persistence of changed opinion is unlike models such as those of Watt, Mazza, and Snyder (1993) in which opinion itself tends to return to some prior state. Assumptions about the short persistence of information's ability to cause change and the fixed nature of opinion until new information enters the system are quite consistent with the elaboration likelihood model and heuristic systematic model of opinion formation and change (Eagly and Chaiken 1993).

Each combined raw persuasive force function, once constructed, was weighted by multiplication with a persuasibility constant *k*, characteristic of the type of information, to give the final persuasive force function. All constants *k* are nonnegative in mathematical sign because they quantify the fraction of the opponents who are converted by the corresponding raw persuasive force functions. For news stories, the estimated values of the *k* constants depend on the amount of news media content analyzed. Since the retrievals were from a random sample of the relevant text, doubling the story sample, as an example, would double the paragraph scores and hence halve the persuasibility constants for the same amount of opinion change. Therefore, the important feature is not the estimated values of these constants but rather their ratios to one another (Fan and Cook 2002). These ratios give the relative abilities of different types of persuasive information to drive opinion changes. Of course, if more restrictive rules are used to generate certain categories of content, this may result in higher parameter estimates but will not distort the overall persuasive power of a domain of content in the modeling (app. sec. 2).

The total, final persuasive force functions were entered into the fundamental equation of ideodynamics to predict the time-trend on a daily basis for expected Clinton approval (app. sec. 3). This equation implements the argument that the role of persuasive information is to persuade nonbelievers. Only then does opinion change. Favorable information should not change the minds of those already convinced. There can be simultaneous movement of opinion toward different ideas. Thus information favorable to Clinton can attract his skeptics at the same time that unfavorable information drives his supporters to join his detractors. Although the model could have included the "don't know's" and "undecided's," as has been done before (Fan 1988), this article did not include these additional categories, because only a small percentage of the population fell into these groups. Therefore, they were effectively assigned in proportion to the categories of skeptics and supporters, thereby diminishing model complexity and making the results more robust. All persuasibility constants were estimated simultaneously using the fundamental ideodynamic equation. The appendix shows how the con-

ditions in this paragraph are sufficient for a complete formulation of the mathematics of ideodynamics once the persuasive force functions have been constructed.[1]

Modifying Models of Media Effects

Until this point the discussion has been only in terms of paragraphs scored as favorable and unfavorable to Clinton. However, valence models of media effects may not always prove sufficient for explaining mass opinion. This is because such perspectives do not consider that news coverage sometimes might move opinion in a direction opposite to the manifest valence of salient content—that is, a backlash effect may occur. As suggested above, it may be particularly important to attend to this possibility when examining opinion about political performance during periods when scandal emerges as a dominant issue regime. This is not to say that economic coverage or coverage of general policy performance will fail to influence mass opinion of presidential performance when scandals erupt; rather, a modified model acknowledges that certain subsets of scandal coverage, although manifestly unfavorable on their face, may nonetheless shape opinion in favorable ways. This requires attention to the news framing of issues.

In particular, coverage framing the Lewinsky scandal in terms of strategic efforts and motives of conservative elites may have prompted an increase in public approval of Clinton since such content suggests, implicitly (i.e., conservative attack frame) or explicitly (i.e., liberal response frame), that the opponents of Clinton pursued him primarily for partisan reasons. In contrast, we speculate that coverage framing the scandal in terms of Clinton's behavior—that is, the president's indiscretions and reactions to accusations of impropriety—functioned to erode his public approval. Therefore, information favorable and unfavorable to Clinton could be assembled in more finely grained ways. The information thought to influence opinion about Clinton's job approval, favorably and unfavorably, could include the following: (1) economic and noneconomic content, (2) different types of scandal coverage

1. In mathematical terms, the simple valence model is

$$\begin{aligned}\text{ClintonAprv}_{(t)} = \text{ClintonAprv}_{(t-1)} &+ [k_{\text{RDI}}F_{(\text{RDI},t-1)} + k_{\text{FavClintEcon}}F_{(\text{FavClintEcon},t-1)} \\ &+ k_{\text{FavClintNonEcon}}F_{(\text{FavClintNonEcon},t-1)}]\text{ClintonDisaprv}_{(t-1)} \\ &- [k_{\text{UnfavClintEcon}}F_{(\text{UnfavClintEcon},t-1)} \\ &+ k_{\text{UnfavClintNonEcon}}F_{(\text{UnfavClintNonEcon},t-1)}]\text{ClintonAprv}_{(t-1)},\end{aligned}$$

where ClintonAprv and ClintonDisaprv are percentages of the public who report approval and disapproval of Clinton, respectively. Values for approval and disapproval of Clinton add to 100 percent since all "undecided's" are excluded and the numbers are renormalized.

about the president, and (3) the monthly RDI.[2]

Specifically, we expect that scandal coverage framed in terms of conservative attacks and liberal responses will work together to sustain Clinton's approval, particularly during the period of the Monica Lewinsky scandal. The combination of these two frames of the scandal, although both were critical of Clinton's behavior, likely prompted a cynical interpretation of the motives of conservative elites, with the liberal defense frame providing the argument and the conservative attack frame providing the evidence of the duplicity of Republican efforts.[3] This model is expected to outperform standard valence models and alternative nonvalence models predicting Clinton's job approval in terms of goodness of fit with the opinion time-trend.

The goodness of the fit was measured in two ways. One was the R^2 calculated as described in the appendix to give the improvement of the model over a flat line over time at the average of all the opinion time points. The other measurement of fit was the root mean squared deviation (RMSD) reported in poll percentage points. This value can be compared with poll sampling error. A RMSD in the range of polling error means that the predicted line has about as much error as the polls being predicted. Improvements in the R^2 and the RMSD are considered evidence of an enhanced model performance. Because of the large number of opinion measurements, significance could be obtained from small opinion changes.

Data

For this study, we use three sets of data. The first is comprised of news coverage of the president, reported daily from the start of Clinton's first term

2. For the RDI, the raw persuasive force function was assigned to be the reported value until the next measurement, at which time there was a step to the new value with no exponential decay, as it was in the valence models. As with the news story persuasive force functions, the RDI raw persuasive force function was weighted by multiplication with its own persuasibility constant to give its final persuasive force function. The total, final persuasive force function favoring Clinton was the sum of all the component persuasive force functions, each one consisting of a raw persuasive force function multiplied by its persuasibility constant. The analogous construction of the total, final persuasive force function opposed to Clinton led to two total, final persuasive force functions that were both calculated every 24 hours.

3. In mathematical terms, the model including backlash is

$$\begin{aligned}\text{ClintonAprv}_{(t)} = \text{ClintonAprv}_{(t-1)} &+ [k_{\text{RDI}}F_{(\text{RDI},t-1)} + k_{\text{FavClintEcon}}F_{(\text{FavClintEcon},t-1)} \\ &+ k_{\text{FavClintNonEcon}}F_{(\text{FavClintNonEcon},t-1)} + k_{\text{ScanAttack}}F_{(\text{ScanAttack},t-1)} \\ &+ k_{\text{ScanResponse}}F_{(\text{ScanResponse},t-1)}]\text{ClintonDisaprv}_{(t-1)} \\ &- [k_{\text{UnfavClintEcon}}F_{(\text{UnfavClintEcon},t-1)} + k_{\text{UnfavClintNonEcon}}F_{(\text{UnfavClintNonEcon},t-1)} \\ &+ k_{\text{ScanBehavior}}F_{(\text{ScanBehavior},t-1)}]\text{ClintonAprv}_{(t-1)},\end{aligned}$$

where ScanAttack, ScanResponse, and ScanBehavior represent the scandal content framed in terms of conservative attack, liberal response, and Clinton's behavior, respectively.

of office in January 1993 through his acquittal on impeachment charges by the U.S. Senate in February 1999. The second consists of public approval polls for the president during the same period. The third is real disposable personal income as estimated by the U.S. Department of Commerce, for the same duration.

NEWS MEDIA COVERAGE

Examination of news content in this study was accomplished through use of the InfoTrend computer content analysis program, which reads a computer program in the FiltScor language (see Fan 1988). We recognize that the potential for error may seem high with computer-aided content analysis, because coding strategies will inevitably sometimes be imperfectly applied by the computer system. Mistakes occur in hand coding, of course, but the seemingly mechanistic approach of computer-aided analysis leads some to be skeptical of this approach. Such concerns prompt us to explain in depth our content analysis process and illustrate the advantage of the InfoTrend coding system as a computer-aided content coding approach.

News content was randomly drawn from the NEXIS electronic data base beginning January 1, 1993, until March 1, 1999. Stories were identified as relevant if they mentioned Bill Clinton. The following media sources were used: ABC News, Associated Press, *Atlanta Journal-Constitution*, *Billings Gazette*, *Boston Globe*, Cable News Network, *Chicago Sun-Times*, *Chicago Tribune*, *Fresno Bee*, Gannett News Service, *Hartford Courant*, *Houston Chronicle*, *Lewiston* (*Idaho*) *Morning Tribune*, *Los Angeles Times*, *Louisville Courier-Journal*, *MacNeil-Lehrer Newshour*, *Minneapolis–St. Paul Star Tribune*, National Public Radio, *New York Newsday*, *New York Times*, *Orlando Sentinel*, *Sacramento Bee*, *St. Louis Post-Dispatch*, *St. Petersburg Times*, *San Diego Union-Tribune*, *San Francisco Chronicle*, *Seattle Times*, United Press International, UPI state wires, *USA Today*, *Washington Post*, and *Washington Times*.

Several rationales underlie this sampling frame. First, the geographical range in news outlets is substantial, with a mix of news wires (Associated Press and United Press International), national broadcast networks and newspapers (e.g., ABC and CNN, National Public Radio, *USA Today*, *New York Times*), leading regional newspapers (e.g., *Boston Globe*, *Los Angeles Times*, *Chicago Tribune* and *Chicago Sun-Times*, *Atlanta Journal-Constitution*), and smaller metropolitan newspapers (e.g., *Hartford Courant*, *Seattle Times*, *Sacramento Bee*). Notably, some research indicates closely similar national political coverage across news organizations, with the result of parallel relationships with public opinion for national and regional news outlets (Shah et al. 1999); at the same time, significant geographical variance in news outlets seems necessary when examining potential linkages of news coverage with national public opinion polls (see Dalton, Beck, and Huckfeldt 1998).

Second, we included multiple news outlets from the same city when possible, because they often reflect quite different perspectives (e.g., *Washington Post* and *Washington Times*). Even with this, our sampling frame may miss some of the most lurid discussions of the Clinton scandal presented on cable news channels (e.g., FOX News, MSNBC) and certain Internet and radio outlets (e.g., The Drudge Report and Rush Limbaugh). Yet survey data from this period indicated that the vast majority of U.S. adults received news information primarily from newspapers or national network and public news broadcasts; in contrast, morning TV talk shows, cable TV news other than CNN, and broadcast talk shows were reported as main news sources much less frequently, even during the height of the Lewinsky scandal.[4] In addition, the mainstream news outlets contained in our sample were available from the NEXIS data base for the entire analytical period, thereby allowing consistency in the sampling frame over time.

A total of 137,842 stories were identified in the search, of which 19,085 (13.8 percent) were randomly sampled.[5] Past research suggests that a sample of 10–15 percent of news content for electronic scoring is sufficient for generating adequate subsamples of relatively small content domains (Ridder and Kleinnijenhuis 2001; West 2001). To be clear, the identified and sampled stories include standard news stories as well as editorials, op-ed pieces, and letters to the editor, all of which are present in the NEXIS data base as distinct entries. All were included in the sampling frame because all are part of the discourse present in these news outlets and, thus, are potentially persuasive on public opinion. At the same time, the length and placement of the content in news outlets were not considerations in this analysis; while these are not irrelevant components of news media coverage, our modeling did not include these additional features because they would have added a significant number of parameters to our models, making it more difficult to observe significance given the inherent limitations of such analysis. To eliminate massive amounts of irrelevant text, we limited our sampled text to downloading content falling within a 50-word window of the search terms.

Once the content was retrieved, it was subjected to a series of filtration and coding steps using the InfoTrend computer program. With this program, the analyst uses the computer language to enter (*a*) idea categories, (*b*) words that tap or reveal those idea categories, and (*c*) rules that allow pairs of ideas in the text to be combined to give more complex meaning. Consistent with norms of news writing, the paragraph was the unit of analysis. To be clear, this content analysis approach is computer-*aided*—that is, the ideas, idea cat-

4. See information from the Gallup Organization at http://www.gallup.com/poll/topics/media.asp (retrieved November 19, 2001).

5. So that we would not retrieve too much irrelevant text, partial stories consisting of 50-word windows around the search terms were downloaded using the following NEXIS search command: "(clinton and (bill clinton) and not (clinton w/s (appoint! or name! or nomin! or secretar! or represent! or envoy or administration or (white house) or deleg! or advis!)))."

egories, and rules are created and refined by human coders through a series of iterations testing their performance against news content. These steps lead to greater precision in the computer's application of the content analysis.

For this research, the first step following the sampling of content was development of a series of computer rules that helped to ensure content focused directly on the president; we concentrate specifically on news treatment of President Clinton so that the object of the coded content paralleled the public opinion data, which cited the president by name. As a next step, content that cleared this initial filter was coded for the *valence*—that is, favorability and/or unfavorability—of the coverage. This content was then subdivided, on the basis of key terminology as explained below, into "economic content" and "non-economic content." Finally, content that cleared the initial filter also was coded for the presence of scandal discussion, which was then distinguished, as explained below, by the organizing frames of "Clinton behavior," "conservative attack," and "liberal response." In the next part of this section, we elaborate upon these coding decisions and provide an overview of the content.

News content was coded for valence using extensive rules established to address the syntactical structures of sentences. Space limitations (and probable reader fatigue) preclude us from exhaustively listing the rules, but this valence coding of political news content has been used, in varying forms, in several studies on evaluations of political leaders in this research program (e.g., Domke et al. 1997; Fan and Cook 2002; Shah et al. 1999). Paragraphs that contained positive or negative statements about President Clinton were coded as favorable or unfavorable toward him. A paragraph could be scored as favorable *and* unfavorable for Clinton, depending on the ideas expressed in the text.[6] Of course, many paragraphs did not contain any valence and were not coded as being either favorable or unfavorable. An example of text that would be scored as favorable to Clinton is the following statement: "Clinton has been successful at outthinking his opponents." In this sentence, the words "Clinton" and "successful" were in close proximity and led to the scoring of the idea as "pro-Clinton." The statement "Speaker Gingrich attacked Clinton on his lack of leadership on Bosnia" would be coded as unfavorable to Clinton, based on the words "Clinton" and "attacked," with coding rules recognizing that "attack" should precede the mention of the president for it to be coded as "con-Clinton." Rules also incorporated negation produced by such words as "not." For example, the statement "Clinton has not been successful in winning votes for health care reform in Congress" would be coded as unfavorable to Clinton. Overall, 13,346 paragraphs received valence codings: 7,024 (52.6 percent) were identified as having a favorable valence for the president, compared to 6,322 (47.4 percent) identified as having an unfavorable valence.

6. Allowing each paragraph to be scored in several categories is a strategy advocated by several scholars. Such an approach "provides a much more accurate reflection of the nature of news coverage than arbitrarily classifying each story"—or paragraph, in our case—"into one and only one category, as political content analysis has occasionally done" (Buchanan 1991, p. 180).

Notably, 1,440 paragraphs were identified as both favorable and unfavorable and were included in each category of content.

Next, these paragraphs were analyzed for whether they focused on the economy or on other aspects of presidential activity. Economic coverage was identified by the presence of economic words or phrases, such as "Dow Jones," "econom>," "<employ>," "inflation>," "jobless>," "jobs," "pocketbook," "prosperity," "recession," "stock market," and "wage," where the angle brackets mean that lead or trailing letters are permitted. To be clear, then, our distinction of economic versus noneconomic coverage was based upon a fairly crude—albeit justifiable, we believe—collection of economy-related words and phrases. Of all valence coverage of Clinton, 16.8 percent discussed the economy, with 1,232 paragraphs (9.2 percent) of favorable economic coverage and 1,008 paragraphs (7.6 percent) of unfavorable economic coverage. The remaining 83.2 percent of valence content about Clinton contained 5,792 paragraphs (43.4 percent) of favorable coverage and 5,314 paragraphs (39.8 percent) of unfavorable coverage. Of this remaining content, 1,176 paragraphs were identified as both favorable and unfavorable and included in each category.

A sample of economic and noneconomic valence paragraphs were randomly selected and coded, as a check against the reliability of the computer coding. A human coder and the machine agreed on 229 of 275 paragraphs, yielding a .833 reliability coefficient. Using the formula for Scott's pi, which corrects for agreement by chance given the distribution of content across categories, intercoder reliability was determined to be 73.9 percent greater than by chance (Scott 1955). This level of human-computer agreement—across four differing categories—added considerably to our confidence in the performance of the computer coding rules. Equally important, the coding errors were not biased in favor or against particular categories of content, thereby providing additional confidence in the computer-aided approach.

The information structure of coded valence coverage is charted in figure 1. This figure shows four trends: two for economic coverage (top two graphs) and two for noneconomic coverage (bottom two graphs). For each pair of graphs, favorable coverage is the upper graph and unfavorable coverage is the lower graph. Each mark on the bottom axis represents January 1 of a particular year. The graphs exhibit the intensity of Clinton valence coverage.[7] It is apparent from these graphs that press coverage of Clinton, particularly noneconomic news, changed dramatically with the eruption of the Lewinsky scandal. However, this valence coding does not capture the manner in which

7. Notably, economic coverage was not highly correlated with noneconomic coverage even though both are subsets of the broader category of favorable or unfavorable valence content. The Pearson's correlation between favorable economic coverage and favorable noneconomic coverage is .22, while the correlation between unfavorable economic coverage and unfavorable noneconomic coverage is .32. The correlations within content categories are somewhat higher, reflecting the rise in positive *and* negative coverage on heavy news days.

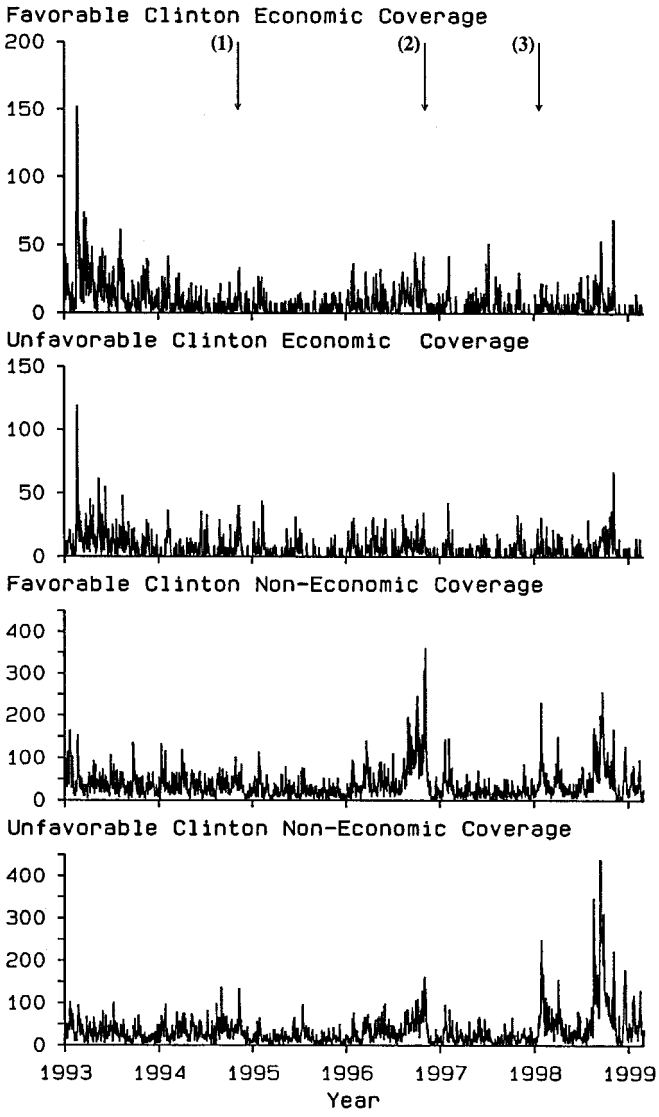

Figure 1. Economic and noneconomic valence coverage of Clinton. *Y* axis indicates paragraph counts of coded content. (1) 1994 midterm elections result in a Republican majority in Congress (November 8, 1994). (2) Clinton is reelected (November 5, 1996). (3) News of a sexual relationship between Clinton and Lewinsky breaks (January 21, 1998).

this scandal was framed, which, we believe, may be a significant factor in assessing the relationship of President Clinton's news content with his public approval.

Therefore, for our final coding procedures the same retrieved text was analyzed for different categories: first, for whether it contained mentions of the president's sex scandals (the one involving Lewinsky as well as the other allegations that emerged or reemerged at this time) and, second, for whether that coverage was framed around Clinton's behavior, conservative attacks on Clinton, or liberal defenses of Clinton. It is possible for any sex scandal story to contain one or more of these three frames. We defined "scandal coverage" as content that mentioned Monica Lewinsky, Kathleen Willey, Paula Jones, or Gennifer Flowers. Because words and phrases used to define the different sex scandal frames (defined in the following paragraph) could be found in other contexts, we required the restrictive condition that the word "Clinton" had to be in any paragraph with the coded frame content. The result of this decision is that our identification of scandal content clearly undercounts the actual amount of such coverage; at the same time, our confidence is high that content coded as scandal content is indeed just that—a paramount consideration, we believe, because of the complexity of this coding. The outcome of these decisions was the coding of 1,373 stories as scandal coverage.

The Clinton behavior frame is defined as straight discussion of the president's behavior in the sex scandals. Coding for this frame included discussion of his purported liaisons with Lewinsky or the other mentioned women, his attempts to evade discovery of the truth, and ongoing developments in the impeachment process, as well as many other words and phrases associated with the scandals, such as "cigar," "cover up," "Currie," "intern," "perjury," and "Vernon Jordan." This was by far the dominant frame of the scandal, at least partly because it focused on the facts of the ongoing news event, whereas the conservative attack and liberal response frames were much more interpretative.

The conservative attack frame was coded as present when sex scandal coverage included words or phrases that (often implicitly) suggested a partisan attack, such as "condemn," "denounce," "immoral," "inappropriate," "remove," and "unfit" issued by "House Managers," "conservative activists," the "special prosecutor," and leading House and Senate Republicans when discussing Clinton. Similarly, the liberal response frame was coded as present whenever Democrats and other, usually liberal, individuals questioned the motivations of Ken Starr or leaders of the House of Representatives impeachment trial or affirmed their allegiance to Clinton. Thus, the liberal response frame included coverage containing words and phrases that (often explicitly) suggested a reaction against conservatives, such as "unconstitutional," "partisan," "misuse of power," "sanctimonious Republicans," "coup d'etat," "right-wing conspiracy," and "liberals accuse." In an approach parallel to the valence content coding, a variety of rules were generated to capture the scandal content

in an accurate manner. Of all content coded as containing scandal discussion, 78.1 percent (3,305 paragraphs) contained Clinton behavior frames, 18.1 percent (764 paragraphs) contained conservative attack frames, and 3.8 percent (161 paragraphs) contained liberal response frames.

A sample of scandal paragraphs were randomly selected and coded as a check against the reliability of the computer coding. A human coder and the machine agreed on 203 of 250 paragraphs, yielding a .812 reliability coefficient. Using the formula for Scott's pi, intercoder reliability was determined to be 58.9 percent greater than by chance (Scott 1955). This level of human-computer agreement—across three differing scandal categories—reflects the limitations inherent in any computer-based content analysis. Confidence in findings would be substantially diminished, however, only if systematic biases (e.g., overscoring of Clinton behavior coverage or underscoring of conservative attack content) existed in the coding; such biases were not apparent at any stage in the development of the coding rules or during the intercoder reliability check. Because of the randomness of any coding errors, the large volume of paragraphs that could be analyzed made application of the computer content analysis a strength of the research.

The information structure of coded scandal coverage is charted in figure 2. This figure shows three trend lines: one for scandal coverage framed in terms of Clinton's behavior (top graph), another for coverage framed in terms of conservative attacks on Clinton (middle graph), and finally, one for coverage framed in terms of liberal responses in defense of Clinton (bottom graph). Once again, each mark on the bottom axis represents January 1 of a particular year. As this figure indicates, coverage of sex scandals occurred throughout Clinton's presidency, especially after Paula Jones filed her civil lawsuit in May 1994, but such coverage did not achieve the prominence of an issue regime until January 1998.[8]

PUBLIC OPINION DATA

Opinion data on public approval of president Clinton were retrieved from the Roper poll data base, starting with a Gallup poll conducted January 24–26, 1993, and ending with a Gallup poll conducted March 12–14, 1999. The

8. The three sex scandal frames often overlapped and, thus, are highly correlated. This is especially the case with the Clinton behavior frame and the conservative attack frame, which have a Pearson's correlation of .89 during the entire time line and .86 after January 15, 1998. The liberal response frame is not as highly correlated with the Clinton behavior frame ($r = .64$) and is a little less so after January 15, 1998 ($r = .51$). The correlation between conservative attack and liberal response frames is .63 for the entire time period and .53 after January 15, 1998. This distinction before and after the breaking of the Lewinsky scandal is important, because prior to this date, the vast majority of days have no sex scandal coverage, and afterward the vast majority of days had at least some sex scandal coverage. As a result, the lack of pre-Lewinsky coverage significantly inflates these correlations. The high correlations among the sex scandal frames raise concerns about collinearity among the parameters in our models of media effects, which we address in the Results section.

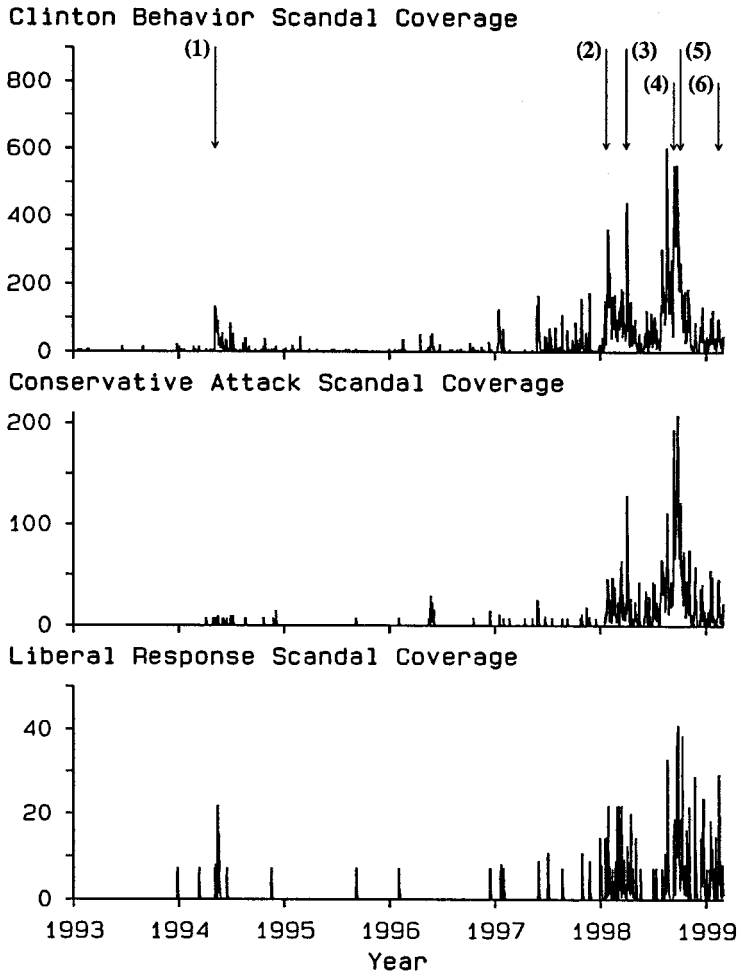

Figure 2. Scandal frame coverage of Clinton. *Y* axis indicates paragraph counts of coded content. (1) Paula Jones files formal complaint against Clinton (May 6, 1994). (2) News of a sexual relationship between Clinton and Lewinsky breaks (January 21, 1998). (3) Judge Susan Webber Wright dismisses the Paula Jones case (April 1, 1998). (4) Starr report is released to the public (September 11, 1998). (5) House Judiciary Committee recommends an impeachment inquiry (October 4, 1998). (6) Senate votes to acquit Clinton of impeachment charges (February 12, 1999).

question used was the following (or a very close variant): "Do you approve or disapprove of the way Bill Clinton is handling his job as president?" A total of 671 survey questions were used for the 6-year time-trend, with each poll point being represented on the median date during the time when the poll was conducted.[9]

REAL DISPOSABLE INCOME DATA

As noted, some scholars and pundits have suggested that the favorable condition of the U.S. economy was the key explanatory factor for Clinton's continued popular support during the Lewinsky scandal and impeachment. With this in mind, we include as a baseline variable in our analysis Real Disposable Personal Income (RDI), obtained from the U.S. Department of Commerce, Bureau of Economic Analysis. Computed on a monthly basis, RDI data are entered as billions of chained 1996 dollars at a seasonally adjusted annual rate, from January 1993 to March 1999. This control variable addresses the possibility that Clinton's approval ratings were simply tied to the public's pocketbook evaluations of personal economic health.

Results

Data analysis proceeded in three stages. First, Clinton's public approval was modeled using only positive and negative coverage, following a basic valence model of media effects. This effort distinguishes between economic and non-economic coverage but does not consider the framing of sex scandal coverage. Second, we tested our modified model of media effects, which particularly addresses our interest in the framing of scandal coverage during the Lewinsky debacle. Of course, alternate model specifications are possible, a number of which we tested to evaluate conflicting explanations. Finally, we examined the robustness of our modified model with some targeted respecifications. All of these attempts to explain change in public approval of Clinton control for real disposable personal income.

9. The questions used to measure public opinion concerning Clinton's job performance were nearly identical across the seven polling houses used to develop the time-trend. The majority used the wording "Do you approve or disapprove of the way Bill Clinton is handling his job as president?" ABC News/*Washington Post* and *Los Angeles Times* used a slight variant in the response categories, asking, "Do you approve or disapprove of the way Bill Clinton is handling his job as president? Is that (approve/disapprove) strongly or (approve/disapprove) somewhat?" Since the additional response options were offered after the initial approval or disapproval, "strongly" and "somewhat" were collapsed for purposes of analysis. Yankelovich Partners adopted a slight variation in question wording: "In general, do you approve or disapprove of the way President [Bill] Clinton is handling his job as president?" A close examination of all the poll values generated by the different polling houses suggests they are highly correlated. Formal correlational analysis was not conducted, because polls were typically conducted on different dates. Projecting poll values based on future opinion measurements conflicts with an underlying premise of the ideodynamic model.

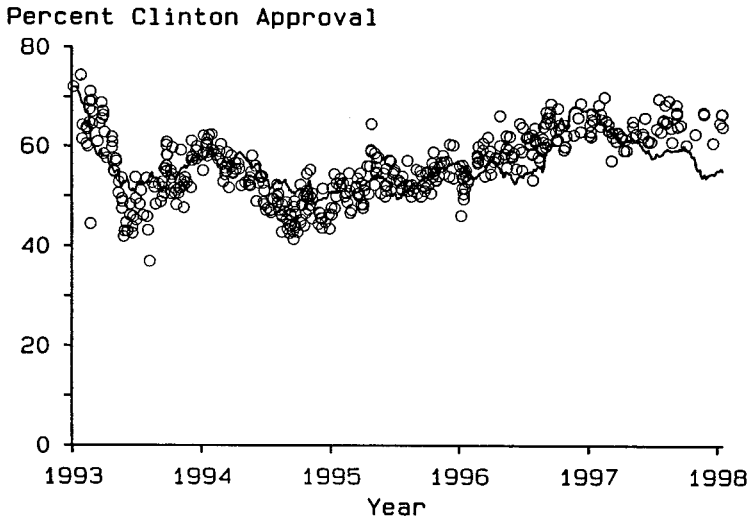

Figure 3. Clinton approval predicted from valence model. The solid line represents the predicted level of public approval; circles give the poll results.

Prior to testing any media effects models, we established a true baseline by attempting to predict Clinton approval with a model that assumed coverage was constant rather than variable. When the model is computed from January 24, 1993, just after the president's inauguration, until March 1, 1999, just after the Senate acquittal, using a constant persuasive force favoring approval and another constant persuasive force favoring disapproval, it yields a very poor fit with the data—an R^2 of .077 and a root mean square deviation of 7.52 percent.

Next, we tested the valence model of media effects using five parameters (economic and noneconomic coverage that was favorable and unfavorable as well as real disposable income) to predict Clinton approval from January 24, 1993, through January 15, 1998, the date of eruption for the Lewinsky scandal. The modeling of valence coverage against public approval polls is presented in figure 3, with the parameter estimates presented in table 1.

Figure 3 represents the predicted level of public approval and compares predicted opinion with actual poll results. A small circle represents each poll result. As the results in table 1 (see Model 1) show, all five of the k parameters of the estimated model are significant at $p < .005$, suggesting that the parameters included in the model are properly specified. As expected—and consistent with a cue-taking perspective—favorable and unfavorable economic coverage is the strongest predictor of public opinion. Noneconomic coverage is also related to public approval trends, though it has considerably less predictive

Table 1. Hypothesized Valence Model (Model 1) and Extensions Predicting Clinton Job Approval

	Model 1	Model 2	Model 3
Pro-Clinton subfunction:			
Real disposable income	.0002*	.0001*	.0001*
Favorable Clinton economic coverage	.2844*	.0002	.0000
Favorable Clinton noneconomic coverage	.1568*	.0486*	.0489*
Con-Clinton subfunction:			
Unfavorable Clinton economic coverage	.5191*	.2447*	.2451*
Unfavorable Clinton noneconomic coverage	.1313*	.0000	.0000
All Clinton scandal coverage			.0000
N (number of polls)	485	671	671
R^2	.788	.600	.600
RMSD	4.54	5.30	5.30

NOTE.—Coefficients are persuasibility constants *k*, which are forced to be positive.
* $p < .005$.

power than economic coverage. In addition, RDI contributes significantly, albeit weakly, to the prediction, which is not surprising given that it varied on a monthly basis whereas the other parameters varied on a daily basis. Overall, the model fit between the predicted and observed opinion time series is excellent in comparison to the baseline model with an R^2 of .788 and a RMSD of 4.54 percent. These results suggest that valence coverage of Clinton, particularly economic coverage, drove public approval of the president prior to start of the scandal.

However, when this basic valence model is extended until March 1, 1999, through the House impeachment vote and Senate acquittal, it suffers from serious misspecification: two of the five parameters are no longer significant, the R^2 drops to .60, and the RMSD rises to 5.3 percent (see table 1, Model 2). These results strongly suggest that a valence model of media effects, even one that attends to economic cues, cannot adequately explain Clinton's public standing during the scandal period. It is important to note that scandal coverage was not included in this model or the prior application of the standard valence model, an issue we turn to next.

Given the fact that all categories of scandal content were manifestly unfavorable to Clinton, with little coverage—even liberal response coverage—directly defending Clinton, some might argue that it should be included as a negative influence on Clinton opinion. When sex scandal coverage is added to this formulation as a manifestly negative factor undermining support for Clinton, it does not improve the basic model's predictive power. In fact, the model retains signs of serious misspecification: three of the six parameters are not significant, the R^2 remains at .60, and the RMSD stays at 5.3 percent

Table 2. Hypothesized Framing Model (Model 4) and Alternative Models Predicting Clinton Job Approval

	Model 4	Model 5	Model 6
Pro-Clinton subfunction:			
Real disposable income	.0002*	.0001*	.0002*
Favorable Clinton economic coverage	.2737*	.3975*	.0769*
Favorable Clinton noneconomic coverage	.1988*	.1553*	
Liberal response scandal coverage	2.037*	2.874*	
Conservative attack scandal coverage	.6236*		.4563*
Con-Clinton subfunction:			
Unfavorable Clinton economic coverage	.4539*	.6605*	.2615*
Unfavorable Clinton noneconomic coverage	.1934*	.1151*	.1165*
Liberal response scandal coverage			.0000
Conservative attack scandal coverage		.0015	
Clinton behavior scandal coverage	.0254*	.0000	
N	671	671	671
R^2	.684	.668	.646
RMSD	4.71	4.82	4.98

NOTE.—Coefficients are persuasibility constants k, which are forced to be positive.
* $p < .005$.

(see table 1, Model 3). Thus, conventional wisdom about scandal coverage—that is, that it is bad for approval—was apparently not the case for Clinton.

We next moved on to test our modified model of media effects, which theorizes that strategically framed sex scandal coverage may enhance support for Clinton, whereas coverage framed in terms of Clinton's behavior may work to undermine public approval. These effects are tested from the president's first inauguration to his acquittal, while accounting for the influence of economic and noneconomic valence content. Results are presented in table 2. Although the prediction begins from the start of Clinton's presidency, figure 4 focuses on the scandal period (January 1998–March 1999) in order to provide a more detailed view of model performance.

Figure 4 represents the predicted level of public approval compared with actual poll results. As the results in table 2 (see Model 4) show, all eight k parameters of the estimated model are significant at $p < .005$, suggesting proper specification. Most important, conservative attack and liberal response coverage—that is, the strategic frames of the scandal—appear to powerfully strengthen public support, whereas scandal coverage framed in terms of Clinton's behavior appears to slightly weaken mass opinion. According to this modeling, economic coverage and noneconomic coverage are also related to public approval trends, as is the parameter representing real disposable income. The R^2 for the model is .684, and the RMSD is 4.71 percent, a substantial

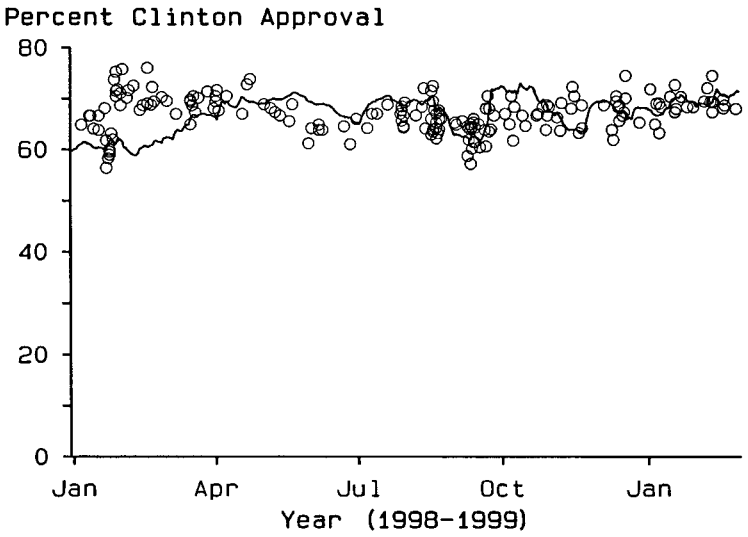

Figure 4. Clinton approval predicted from frame model. The solid line represents the predicted level of public approval; circles give the poll results.

improvement in model fit over other estimates including the scandal period. These results, then, suggest that news coverage that framed the scandal as a partisan attack upon Clinton, either implicitly or explicitly, produced a public response that strengthened approval of the president.

Alternate specifications of framing models are certainly conceivable. First, it could be argued that conservative attacks had their intended effect and actually hurt Clinton's approval ratings—a more finely grained valence model. We tested for this possibility by moving conservative attack coverage to the con-Clinton subfunction of the model. This alternate model is less appropriately specified: two of the eight parameters—conservative attack and Clinton behavior coverage—are no longer significant, the R^2 drops to .668, and the RMSD rises to 4.82 percent (see table 2, Model 5). Next, we tested whether both types of strategic coverage generated a cynical response by including conservative attack coverage in the pro-Clinton subfunction and liberal attack coverage in the con-Clinton subfunction. This model also suffers from misspecification. The liberal response frame, previously the dominant predictor in the model, drops to nonsignificance, and model fit is suboptimal: $R^2 = .646$; RMSD = 4.98 percent (see table 2, Model 6). These findings lend support to our perspective that strategic framing of the scandal generated, rather than eroded, support for Clinton during the Lewinsky debacle. Thus, both of these alternate specifications yield sizable drops in goodness of fit.

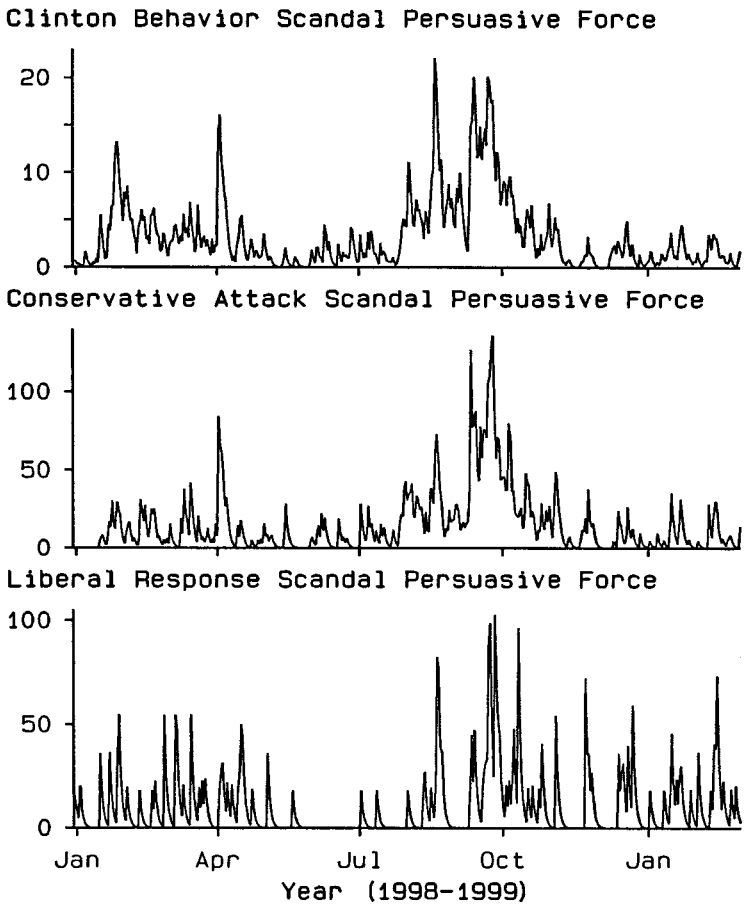

Figure 5. Persuasive force functions for frames of scandal coverage. The lines give the ideodynamic persuasive force functions with each paragraph given its full value on the story date followed by an exponential decay with a 1-day half-life.

Delving a bit deeper, our modified model is also open to minor respecification, given the high degree of co-occurrence of Clinton behavior and conservative attack coverage. These two frames of the scandal, while distinct in terms of content coding, often appeared side by side in the same story and thus produce roughly parallel time-trends. This becomes apparent in figure 5, which plots the persuasive force functions for the three frames of scandal coverage during 1998 and the first 2 months of 1999. Looking at this figure,

Table 3. Respecified Framing Models Predicting Clinton Job Approval

	Model 7	Model 8
Pro-Clinton subfunction:		
Real disposable income	.0002*	.0000
Favorable Clinton economic coverage	.3022*	.3813*
Favorable Clinton noneconomic coverage	.1314*	.2206*
Liberal response scandal coverage	2.049*	2.646*
Conservative attack scandal coverage	.1798*	
Clinton behavior scandal coverage		.0763*
Con-Clinton subfunction:		
Unfavorable Clinton economic coverage	.5108*	.6082*
Unfavorable Clinton noneconomic coverage	.1275*	.1899*
N	671	671
R^2	.683	.685
RMSD	4.71	4.70

NOTE.—Coefficients are persuasibility constants k, which are forced to be positive.
* $p < .005$

it seems possible that Clinton behavior coverage, not conservative attacks, worked with liberal response coverage to sustain approval. If this were the case, the backlash would be against not conservative attacks but the more widespread focus on Clinton's behavior that predominated media coverage.

To further clarify the role of scandal coverage, we tested two additional models that alternately included either Clinton behavior coverage or conservative attack coverage as factors sustaining support for Clinton. When conservative attack coverage is included in the pro-Clinton subfunction, all seven k parameters are significant at $p < .005$, and R^2 reaches .683 (RMSD = 4.71 percent), roughly paralleling the performance of our hypothesized model (see table 3, Model 7). In contrast, when Clinton behavior coverage is used to explain Clinton approval, the RDI parameter is no longer significant (see table 3, Model 8), yet the model explains slightly more variance in Clinton approval than do previous models ($R^2 = .685$; RMSD = 4.70 percent), leaving open the possibility that the liberal response coverage colored how all scandal content was interpreted. Nonetheless, the fact that RDI drops to nonsignificance for the first time across all tested models creates some uncertainty about this respecification. Given RDI's consistent performance across previous tests, this shift suggests an error in model construction.

Discussion

These findings suggest that simple valence models of media effects do not adequately explain President Clinton's public support during the Monica Lew-

insky scandal. What is needed in the case of Clinton, it seems, is a sharp modification of extant models of media effects to account for the framing of scandal coverage. The results suggest that mass approval of Clinton was sustained and encouraged by news content presenting the scandal in terms of attacks by conservatives and critical responses by liberals; that is, the president's approval among the public was not simply a function of the strength of the economy and favorable presidential performance. Therefore, our analyses lend support to the perspective that citizens strengthened their support for Clinton when they encountered coverage that framed the sex scandal in terms of the actions and accusations of conservative elites, even though this coverage was overwhelmingly negative of Clinton. Complementing this implicit strategic framing of scandal was news coverage that emphasized liberal elites' explicit questioning of the motives underlying Republican actions.

It seems likely that these two frames worked together to intensify public support for Clinton, mutually reinforcing each other in a cycle of argument and evidence. From this perspective, news frames not only provide ways for the public to understand politics, they also provide lenses through which citizens can reinterpret media discourse. For Clinton, coverage that emphasized the liberals' objections to conservatives' efforts appears to have encouraged a redefinition of certain classes of scandal content by many members of the public. In this way, Democratic critiques of the scandal reframed Republican denunciations, ultimately resulting in the strategic encoding of conservative attack coverage. Notably, both types of coverage account for a sizable amount of variance in mass opinion about presidential performance when they are jointly included as part of the positive subfunction predicting Clinton approval. This confirms our expectation that Clinton's strong approval ratings were, in part, the result of a counterresponse by citizens—that is, a reaction against conservative efforts to disparage and remove a popular president over what may have seemed to be private, highly personal indiscretions.

These findings are consistent with work on the "game" or "strategy" structure of political reporting (Cappella and Jamieson 1997; Patterson 1994) and research exploring partisan reaction to negative political advertising (Pinkleton 1998; Sonner 1998). Both of these lines of research suggest that when the motives of partisan actors are highlighted in the context of a political attack, members of the public use this information to screen the claims that are being advanced. Thus, when news is presented through this strategic frame, the typical reaction is one of mistrust—that is, Machiavellian motives are attributed to the efforts of partisan actors, and their perspectives are rejected or counterargued. As a result, the political attack yields an unintended effect. In the case of Clinton, journalistic emphasis on the outrage of conservatives and their efforts toward impeachment confirmed the frame advanced by Clinton supporters—that is, that the efforts of conservatives were politically motivated and democratically unjust.

This research also provides insight into the ways in which differing types

of news coverage influence public opinion, in this case of the president. For example, consistent with previous research in this area (Hetherington 1996; Shah et al. 1999), our results indicate that the valence of economic coverage influences public opinion about political leaders, which suggests that citizens are influenced by sociotropic concerns acquired via news media. These effects on mass opinion are above and beyond the influence attributable to change in real disposable income. From this perspective, news coverage provides the public with cues about the state of the nation's economy, which in turn affects the criteria upon which the president is evaluated. Research has only begun to explore how citizens form sociotropic evaluations for use in economic voting decisions; the results here extend investigations highlighting the importance of news media in this process to presidential evaluation. Our findings suggest that economic cues in press coverage serve as a key criterion in evaluations of the chief executive by providing what Kinder and Kiewiet (1981) call "rough evaluations" of the national economic status.

Notably, noneconomic coverage grew in importance relative to economic coverage in the aftermath of the Lewinsky scandal revelations. Noneconomic Clinton coverage not only increased in volume but also gained persuasive power. This is particularly true for unfavorable noneconomic coverage in our modified model of media effects, which worked with Clinton behavior coverage and unfavorable economic coverage to create a downward pressure on public opinion. This downward pressure, however, apparently was negated and countered by the small subset of scandal coverage focusing on conservative attacks and liberal responses; this may explain why such coverage only modestly sustained opinion about presidential job performance.

In sum, our results testify to the importance of accounting for news framing and cueing of issue regimes such as scandal and the economy when examining media effects on public opinion. Our approach recognizes that journalists play an important role in constructing the news: choices about language, quotations, and relevant information lead to emphasis upon certain features of a news story and, in turn, significantly structure citizens' responses to public events and issues by encouraging certain "trains of thought" (Price, Tewksbury, and Powers 1997; Shah, Domke, and Wackman 1996). Accordingly, frames and cues within news coverage can focus public attention on particular criteria and, in so doing, may alter the basis of political judgment (Dalton, Beck, and Huckfeldt 1998; Krosnick and Brannon 1993). Such effects seem particularly likely, we have argued, when resonant frames and cues are embedded within dominant issue regimes. Coverage of the economy and scandals are two such issue regimes, for they consistently emerge as prevailing news topics in politics and therefore become likely to provide the basic standards citizens use to form their evaluations of politicians. In such instances, cues and frames become shared by political elites and journalists and grow commonplace in news coverage as efficient ways of discussing the topic. In turn, these news con-

structions become likely to shape mass opinion about political issues and politicians.

At a minimum, then, these results are a step toward understanding the dynamics of news coverage and public opinion during this unusual period in American political life. Indeed, our findings suggest that if key frames and cues in news coverage are taken into account, then the contours of public opinion are readily predictable. Contrary to the view offered by a number of pollsters, pundits, and scholars, our evidence suggests that the public *was* influenced by scandal coverage. Indeed, our modeling suggests that, while economic cues are important in explaining trends in presidential approval during the vast majority of Clinton's term, accounting for trends in public approval after Monica Lewinsky entered the public stage requires particular attention to the framing of scandal coverage in terms of conservative attacks and liberal responses.

References

Beck, Paul Allen. 1991. "Voters' Intermediation Environments in the 1988 Presidential Contest." *Public Opinion Quarterly* 55:371–94.

Bennett, W. Lance. 1993. "Constructing Publics and Their Opinions." *Political Communication* 10:101–20.

Bennett, W. Lance, and Jarol B. Manheim. 1993. "Taking the Public by Storm: Information, Cueing, and the Democratic Process in the Gulf Conflict." *Political Communication* 10:331–52.

Brody, Richard A. 1991. *Assessing the President: The Media, Elite Opinion, and Public Support*. Stanford, CA: Stanford University Press.

Brownstein, Ronald. 1999. "Impeachment Debate Could Tar Gore and GOP." *Los Angeles Times*, February 5.

Buchanan, Bruce. 1991. *Electing a President: The Markle Commission Report on Campaign '88*. Austin: University of Texas Press.

Cappella, Joseph N., and Kathleen H. Jamieson. 1997. *Spiral of Cynicism: The Press and the Public Good*. New York: Oxford University Press.

Dalton, Russell J., Paul A. Beck, and Robert Huckfeldt. 1998. "Partisan Cues and the Media: Information Flows in the 1992 Presidential Election." *American Political Science Review* 92: 111–26.

Domke, David, David P. Fan, Michael Fibison, Dhavan V. Shah, Steven S. Smith, and Mark D. Watts. 1997. "News Media, Candidates and Issues, and Public Opinion in the 1996 Presidential Campaign." *Journalism and Mass Communication Quarterly* 74(4):718–37.

Domke, David, Taso Lagos, Mark LaPointe, Melissa Meade, and Mike Xenos. 2000. "Elite Messages and Source Cues: Moving beyond Partisanship." *Political Communication* 17: 395–402.

Domke, David, Dhavan V. Shah, and Daniel B. Wackman. 1998. "Media Priming Effects: Accessibility, Association, and Activation." *International Journal of Public Opinion Research* 10:1–24.

Eagly, Alice H., and Shelly Chaiken. 1993. *The Psychology of Attitudes*. New York: Harcourt Brace Jovanovich.

Faber, Ronald J., Albert R. Tims, and Kay G. Schmitt. 1990. "Accentuate the Negative? The Impact of Negative Political Appeals on Voting Intent." In *Proceedings of the American Academy of Advertising*, ed. Patricia Stout, pp. RC-10–RC-16. Austin, TX: American Academy of Advertising.

Fan, David P. 1985. "Ideodynamics: The Kinetics of the Evolution of Ideas." *Journal of Mathematical Sociology* 11:1–24.

———. 1988. *Predictions of Public Opinion from the Mass Media*. Westport, CT: Greenwood.

Fan, David P., Hans-Bernd Brosius, and Hans Mathias Kepplinger. 1994. "Predictions of the

Public Agenda from Television Coverage." *Journal of Broadcasting and Electronic Media* 38: 163–78.

Fan, David P., and Dennis R. Cook. 2002. "A Differential Equation Model for Predicting Public Opinions and Behaviors from Persuasive Information: Application to the Index of Consumer Sentiment." *Journal of Mathematical Sociology*, forthcoming.

Feldman, Stanley. 1982. "Economic Self-Interest and Political Behavior." *American Journal of Political Science* 26(3):446–66.

Gamson, William A. 1992. *Talking Politics*. Cambridge: Cambridge University Press.

Goidel, Robert K., Todd G. Shields, and Mark Peffley. 1997. "Priming Theory and RAS Models: Toward an Integrated Perspective of Media Influence." *American Politics Quarterly* 25: 287–318.

Hamblin, Robert Lee, R. Brooke Jacobsen, and Jerry L. L. Miller. 1973. *A Mathematical Theory of Social Change*. New York: Wiley.

Hetherington, Marc J. 1996. "The Media's Role in Forming Voters' National Economic Evaluations in 1992." *American Journal of Political Science* 40:372–95.

Hutchinson, Earl O. 1998. "GOP in South Sees a Civil War It Can Win." *Los Angeles Times*, December 21.

Iyengar, Shanto. 1991. *Is Anyone Responsible? How Television Frames Political Issues*. Chicago: University of Chicago Press.

Iyengar, Shanto, and Donald R. Kinder. 1987. *News That Matters*. Chicago: University of Chicago Press.

Jamieson, Kathleen Hall. 1992. *Dirty Politics*. New York: Oxford University Press.

———. 1998. "That Clear Line between Public and Private Conduct." *Washington Post National Weekly Edition*, March 30, p. 21.

Jasperson, Amy, Dhavan V. Shah, Mark D. Watts, Ronald Faber, and David P. Fan. 1998. "Framing and the Public Agenda: Media Effects on the Importance of the Federal Budget Deficit." *Political Communication* 15:205–24.

Johnston, Richard, Andre Blais, Henry E. Brady, and Jean Crête. 1992. *Letting the People Decide: Dynamics of a Canadian Election*. Stanford, CA: Stanford University Press.

Just, Marion R., Anne N. Crigler, Dean E. Alger, Timothy E. Cook, Montegue Kern, and Daryl M. West. 1996. *Crosstalk: Citizens, Candidates, and the Media in a Presidential Campaign*. Chicago: University of Chicago Press.

Kinder, Donald R., Gordon Adams, and Paul Gronke. 1989. "Economics and Politics in the 1984 Presidential Election." *American Journal of Political Science* 33(2):491–515.

Kinder, Donald R., and D. Roderick Kiewiet. 1981. "Sociotropic Politics: The American Case." *British Journal of Political Science* 11:129–61.

Krosnick, Jon A., and Laura Brannon. 1993. "The Media and the Foundations of Presidential Support: George Bush and the Persian Gulf Conflict." *Journal of Social Issues* 49:167–82.

Kuklinski, John H., and Norman L. Hurley. 1994. "On Hearing and Interpreting Political Messages: A Cautionary Tale of Citizen Cue-Taking." *Journal of Politics* 56:729–51.

Lawrence, Regina G. 2000. "Game-Framing the Issues: Tracking the Strategy Frame in Public Policy News." *Political Communication* 17:93–114.

Lawrence, Regina G., W. Lance Bennett, and Valerie Hunt. 1999. "Making Sense of Monica: Media Politics and the Lewinsky Scandal." Paper presented at the American Political Science Association meeting, Atlanta.

Lewis-Beck, Michael S. 1988. *Economics and Elections: The Major Western Democracies*. Ann Arbor: University of Michigan Press.

Lodge, M., and P. Stroh. 1993. "Inside the Mental Voting Booth: An Impression-Driven Process Model of Candidate Evaluation." In *Explorations in Political Psychology*, ed. S. Iyengar and W. McGuire, pp. 225–263. London: Duke University Press.

Mendelsohn, Matthew. 1996. "The Media and Interpersonal Communications: The Priming of Issues, Leaders, and Party Identification." *Journal of Politics* 58:112–25.

Mondak, Jeffrey. 1993. "Source Cues and Policy Approval: The Cognitive Dynamics of Public Support for the Reagan Agenda." *American Journal of Political Science* 37:186–212.

Nelson, Thomas E., Zoe M. Oxley, and R. A. Clawson. 1997. "Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance." *American Political Science Review* 91:567–83.

Pan, Zhongdang, and Gerald M. Kosicki. 1997. "Priming and Media Impact on Evaluations of the President's Performance." *Communication Research* 24:3–30.

Patterson, Thomas E. 1994. *Out of Order*. New York: Vintage.
Phillips, Kevin. 1999. "Morning Edition," National Public Radio, January 27.
Pinkleton, Bruce E. 1998. "Effects of Print Comparative Political Advertising on Political Decision-Making and Participation." *Journal of Communication* 48:24–36.
Price, Vincent, and David Tewksbury. 1997. "News Values and Public Opinion: A Theoretical Account of Media Priming and Framing." In *Progress in Communication Sciences*, ed. G. Barnett and F. J. Boster, pp. 173–212. Greenwich, CT: Ablex.
Price, Vincent, David Tewksbury, and Elizabeth Powers. 1997. "Switching Trains of Thought: The Impact of News Frames on Readers' Cognitive Responses." *Communication Research* 24:481–507.
Ridder, Jan A. de, and Jan Kleinnijenhuis. 2001. "Media Monitoring Using CETA: The Stock-Exchange Launches of KPN and WOL." In *Applications of Computer Content Analysis*, ed. Mark West, pp. 165–84. Westport, CT: Ablex.
Roberts, Carl R. 1989. "Other than Counting Words: A Linguistic Approach to Content Analysis." *Social Forces* 68:147–77
Rothenberg, Stuart. 1998. "CNN Saturday," Cable News Network, September 19.
Scott, William A. 1955. "Reliability of Content Analysis: The Case of Nominal Scale Coding." *Public Opinion Quarterly* 19:321–25.
Shah, Dhavan V. 2001. "The Collision of Convictions: Value-Framing and Value Judgments." In *Communication and U.S. Elections: New Agendas*, ed. Roderick P. Hart and Daron Shaw, pp. 55–74. Lanham, MD: Rowman and Littlefield.
Shah, Dhavan V., David Domke, and Daniel Wackman. 1996. "'To Thine Own Self Be True': Values, Framing, and Voter Decision-Making Strategies." *Communication Research* 23: 509–60.
Shah, Dhavan V., Mark D. Watts, David Domke, David P. Fan, and Michael Fibison. 1999. "News Coverage, Economic Cues, and the Public's Presidential Preference: 1984–1996." *Journal of Politics* 61:914–43.
Sonner, Brenda S. 1998. "The Effectiveness of Negative Political Advertising: A Case Study." *Journal of Advertising Research* 38:37–42.
Traugott, Michael W. 1992. "The Impact of Media Polls on the Public." In *Media Polls in American Politics*, ed. Thomas E. Mann and Gary R. Orren, pp. 125–49. Washington, DC: Brookings.
Watt, James H., Mary Mazza, and Leslie Snyder. 1993. "Agenda-Setting Effects of Television News Coverage and the Effects Decay Curve." *Communication Research* 20:408–35.
West, Mark, ed. 2001. *Applications of Computer Content Analysis*. Westport, CT: Ablex.
Zaller, John. 1992. *The Nature and Origins of Mass Opinion*. Cambridge: Cambridge University Press.
———. 1998. "Monica Lewinsky's Contribution to Political Science." *PS: Political Science and Politics* 31:182–89.