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## Political Knowledge and the Campaign Media of 1992

*Effects of various mass media on political learning during the 1992 presidential campaign are examined via analyses of two voter surveys conducted in different states. Three indicators of political knowledge are compared: differences on issues between parties (Republican vs. Democratic), differences on issues among candidates (Bush vs. Clinton vs. Perot), and personal knowledge about the candidates (Bush, Clinton, and Perot). Campaign media, including both news coverage and special events (conventions, debates), added significantly to the prediction of both kinds of knowledge about the candidates, even after controlling for major demographic variables and for habitual uses of news media. Of the new forms of media campaigning that became prominent in 1992, at least the interview/talk show format apparently added to voter learning about candidates. Television sources of various types tended to contribute more to learning about the candidates, whereas the newspaper was the medium more associated with knowledge of policy differences between the two major parties.*

An enlightened electorate is one of the basic elements assumed in democratic theory. Not surprisingly, the earliest voter surveys measured knowledge about candidates, parties, and issues and evaluated the factors that enhance public understanding (Berelson, Lazarsfeld, & McPhee, 1954; Lazarsfeld, Berelson, & Gaudet, 1944). Investigators consistently report that public knowledge, even on issues that seem to journalists and political insiders as clear-cut, is decidedly imperfect. The campaign via the mass media can, then, be viewed as a massive national civics course. Informing prospective voters is presumed to be a general responsibility of a free press (Siebert, Peterson, &

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Schramm, 1956). The extent to which current media institutions fulfill this promise, a subject of ongoing debate and study, is the focus of this article.

Central to such research is one's definition of *political knowledge*. To some extent, this term is an oxymoron: Politics involves promises, hopes, and denials of reality, as much as it consists of ascertainable facts. Still, there are consistent differences between parties and candidates in what they advocate, and scholars often evaluate the extent to which these differences are understood by voters. Further, in each election each candidate is a unique individual whose personal attributes and accomplishments set him or her apart; these personal items constitute a further body of knowledge that can be useful to voters.

We assess here the contributions of various media channels to three kinds of voter knowledge. Two measures assess the extent to which the person knows the relative positions of the major political parties, and of the three principal candidates for president, on prominent policy issues of the 1992 campaign.<sup>1</sup> The third index is based on personal details about each candidate, items that are more unarguably factual than are issue differences.

The central proposition here is that the contribution of each channel is reflected by the extent to which its use is associated with voter knowledge. But not all media forms are equally important for all three types of information. The differences between parties are, on most issues, of longer standing and thus not so reliant on communication channels that are activated only during the campaign. We expect to find the strongest evidence of effects via campaign-specific media on the criterion measures of knowledge about these candidates and their specific issue differences. This study focuses in particular on the contributions of campaign-specific communication channels, beyond what voters might already have known about the parties or would have learned from their usual media channels.

Personal candidate knowledge stands at the opposite end of the knowledge spectrum from party-issue knowledge in its relationship to the content of the campaign carried in the media. That is, a voter may well understand the general pattern of Republican-Democrat policy differences long before the campaign begins, whereas particular information about a specific politician does not come to the fore until that individual emerges as a viable national candidate. In this spectrum of types of information, candidate-issue knowledge stands in an intermediate position and is the indicator of "voter enlightenment" most central to our analysis. Comparison of these three kinds of knowledge is a central feature of our study design.

The media institutions of American political campaigns have proliferated, especially since the coming of television. Originally, the press consisted of

newspapers, and the campaign was conducted via print materials and public appearances on the hustings; later, magazines (including cartoons), radio news, and advertising were added to the campaign mix. Those institutions, although by no means defunct, are today overshadowed by television news and advertising. Specific televised events such as party conventions and candidate debates draw huge TV audiences. Each of these new forms of political communication has drawn praise and criticism for its specific contributions to the electoral process, and each has been shown to contribute in particular ways to different kinds of knowledge in various kinds of voters.<sup>2</sup>

The campaign of 1992 was notable for extensive use of unusual forms of campaign media, and we will attempt here to examine these channels specifically. Perot, as a third candidate running with no party apparatus, made his presence known through radio and television interview and call-in shows and by buying large blocks of TV time to promote his economic proposals and his personal candidacy. Clinton overcame early negative press coverage partly by appearing on late-night television shows and by following Perot's appearances on NBC's morning program "Today." Bush, perhaps because he was the incumbent, was slow to emulate Perot and Clinton by using innovative media formats, but eventually he too—and vice presidential candidates Albert Gore and Dan Quayle—followed suit.

By the end of the campaign, voters had numerous opportunities to see and hear live broadcasts in which these political hopefuls answered questions from professional interviewers, studio audiences, and the call-in radio and TV audience outside the studios. The fall of 1992 also saw the first three-candidate TV debate formats in presidential election history.<sup>3</sup> Clinton, reaching out for additional corners of the electorate, played his saxophone on the Arsenio Hall show, and answered questions from young viewers of Music Television (MTV). The lively Perot not only purchased TV time for his "info-mercials," he attracted sizable media audiences to his appearances on various talk programs. Whether these new media of 1992 were a one-time phenomenon, keyed to the special personalities of Perot and Clinton, or the forerunners of campaign formats that will become as institutionalized and standard as, say, attack ads or convention coverage or debates, remains a question.<sup>4</sup> But for the moment we can at least inquire into the contribution they made to voter knowledge in 1992, alongside the more traditional media channels.

In terms of the three criterion measures in this study, we should expect these talk show formats to enhance voters' knowledge of the candidates, but not of the parties. Candidates are asked questions about themselves and about their policy positions, and rarely are their party affiliations prominent

in these discussions. The same may be said of debates. Indeed, one general effect of the shift to television as the dominant medium of political communication may be a decline in the salience of parties (Ranney, 1983). By focusing on individual candidates, broadcast journalism and talk formats alike are designed to inform voters about prominent politicians more than about political parties.

## Design Considerations

Two general approaches have been used to evaluate the public media in terms of their contributions to an enlightened electorate. One is the detailed study, and critical analysis, of the informative content of each medium. This method is sometimes coupled with general estimates of the size of its audience, to inform a judgment about probable impact. The second approach, and the one used in the studies reported here, is to interview a broad cross-section of voters and to measure separately their attention to the various media channels and their political knowledge levels; correlations between the two sets of measures are taken as rough estimates of media effects.

Neither of these research procedures is in itself sufficient; each kind of evidence is complementary to the other. The content-analytic approach assumes that learning is inevitable once the media purvey information. But of course mere sending is no guarantee of reception of any message, and broadcast communication—even to a large audience—may yield only minimal knowledge acquisition. Controlled experiments on learning of items in TV newscasts show generally low levels of recall (Gunter, 1991; Stauffer, Frost, & Rybolt, 1983).

The correlational design used in this study has a different set of flaws. On its face, correlational research would seem to assume that, if those who follow a media event or channel also turn out to be the more knowledgeable citizens, this association is due to their learning from that source. But there are abundant alternative explanations for such a correlation. Channels are not mutually exclusive, and the most informative of them attract the best-informed audiences. Prior knowledge is a strong predictor of voluntary exposure to media information (Sears & Freedman, 1967). Education is one antecedent variable that predicts both knowledge and attention to media news. Stringent controls for spuriousness are required when testing specific hypotheses with survey data.

Some studies combine the content-specific and correlational approaches. One can for example test a televised debate's informative effects by compar-

ing people's knowledge on topics that were debated versus those that were not (Carter, 1962; Sears & Chaffee, 1979). Comparative, content-specific correlations are more convincing evidence of learning than is any single correlation. Given that cause-effect inference in survey research is always questionable, comparative and controlled research designs help greatly in sorting out spurious correlations from results that deserve to be taken seriously in evaluating campaign media institutions. This study, accordingly, incorporates both statistical controls and content-specific comparisons between classes of media and between types of knowledge.

The empirical research literature tends to encourage the broad conclusion that all campaign media contribute, in some measure, to public knowledge. But there are exceptions aplenty, and some media appear to be much more successful in this regard than others. For example, almost all studies attribute a substantial contribution to newspaper reading (e.g., Clarke & Fredin, 1978), but only about one half of studies testing the value of TV advertising on knowledge about candidate's issue positions detect any significant effect (Patterson, 1980; Patterson & McClure, 1976; Zhao & Chaffee, 1993).

The informativeness of TV news as a general institution is often questioned by academics. Patterson and McClure (1976) found little coverage of issues in the 1972 campaign, for example, and some surveys show negative correlations between reliance on television for one's news and the holding of political information (e.g., Becker & Whitney, 1980).

The first televised debates, in 1960, were considered by scholars to be mainly image-building events (Katz & Feldman, 1962). Contributions to knowledge were well-documented for the 1976 debates between Ford and Carter (summarized by Sears & Chaffee, 1979). The picture has been mixed in debates studies of the 1980s (e.g., Drew & Weaver, 1991).

Although party nominating conventions occupy a great deal of television time every 4 years, they are rarely studied to ascertain whether people learn from them. (An exception is Patterson, 1980.)

Radio news, which in the pre-television era was a major source of political information (Kraus & Davis, 1976), is today neglected in the literature. Perhaps radio effects have been tested but not found (e.g., Berkowitz & Pritchard, 1989; Weaver & Drew, 1993), and hence are omitted from published articles.

News magazines, which tend to be read by the most politically sophisticated citizens (Campbell, Converse, Miller, & Stokes, 1966; Chaffee & Tims, 1982), likewise get overlooked in most voter research. This may be attributable to the restricted character of the news magazine audience, in comparison with the more universal media.

The research literature generally emphasizes two-channel comparisons between television news and either the newspaper or television advertising (probably because the value of TV news is considered questionable by most academics). In this article we make some attempt to evaluate the other campaign media channels as well. No one study can be definitive. Each election campaign is unique, and so are the events in it. The press learns from its mistakes, and news coverage of one campaign may generate reforms the next time around. Each study is specific to a time and a place, and local politics can lead to anomalous results. Each study is unique too, in the measures of use of campaign media. Questions about attention, for example, produce results more flattering to TV news than do questions about mere frequency of viewing news programs (Chaffee & Schleuder, 1986). Variation extends to the dependent variables, which may range from image knowledge (e.g., Weaver & Drew, 1993), to civics knowledge about terms of office or branches of government (e.g., Martinelli, 1993), to questions about the party affiliations and offices held by leading political figures (e.g., Chaffee, Ward, & Tipton, 1970). Studies tend to detect greater learning effects for multi-item tests of knowledge, which are more reliable and less affected by idiosyncratic factors than are single-item measures.

## Sources of Data

This article uses data from two surveys, conducted in California and North Carolina, respectively, of voters who were interviewed during the 1992 campaign year. The California study included a measure of party-issue knowledge and also a measure of personal knowledge about the candidates that is independent of policy questions. The North Carolina study provides a measure of candidate-issue knowledge. Each measure is an index, based upon 20, 10, and 7 survey questions, respectively. The specific items are detailed in the appendix.

Each survey asked questions, in some instances virtually the same question, about various campaign media. There are some measures unique to each study, though, and the two samples differ in their design. The North Carolina survey, which includes the key measure of candidate-issue knowledge, is a cross-sectional statewide general population sample,  $N = 841$ , which includes nonvoters.<sup>5</sup> The California study sampled respondents from lists of registered voters in four counties in different parts of the state and reinterviewed them several times; hence the study is limited to people who were already registered at the beginning of 1992, who remained in their same area of residence until after the November election, and who stayed in the panel

throughout the year by repeatedly agreeing to be interviewed,  $N = 344$ .<sup>6</sup> This selection-and-attrition procedure created an upward bias in both education and political involvement, although in other respects (e.g., family income, party registration, age) the sample resembled known population characteristics of the four counties reasonably well.

Because of these vagaries of data collection, it is important to establish the comparability of the two samples as a first step in the research. We begin by creating base equations that consist of a block of control variables that have nothing directly to do with communication media. After accounting for the variables in those base equations, we test the contribution each media measure makes to variance in each knowledge index. For both surveys, we examine the successive contributions to the total equation of four increments: the demographic and political control variables; people's habitual forms of news media use; campaign-specific attention to institutionalized media; and finally the added variance attributable to the talk show and kindred formats that were prominent in the campaign year of 1992.

## Measurement

The variables that were measured in the two surveys are indicated in Tables 1 and 2, which present our main results. The control variables, which are analyzed in Table 1, are mostly self-describing, standard survey items such as the person's education, age, income, gender, race, residence, and occupational status. For questions where there was a significant incidence of nonresponse, we coded missing data as a dummy variable (and as a constant in the separate measure of the variable) so that nonresponse would not affect the beta weights for these demographics themselves (Cohen & Cohen, 1983). Ideology and party identification were measured in standard fashion, by asking the respondent for self-descriptions as liberal or conservative, and Republican or Democrat, respectively. Four control variables are peculiar to the North Carolina study; three of these (race, urban residence, and occupational status) had negligible effects. The fourth, intention to vote, was not a variable in the California study, in which more than 98% of the respondents (all early registered voters) said they intended to, and later reported they did, vote.

The first media variables entered in Table 2 describe habitual media behaviors: reading a daily newspaper, watching network TV news, and reading a newsmagazine. Prior research shows these to be stable patterns of daily life, and we consider them to represent individual differences of long standing. Their contribution to our analysis represents a mixture of control

Table 1  
*Three Types of Knowledge, by Control Variables*

Predictor	Dependent variable:		
	Party-issue knowledge (California)	Candidate-issue knowledge (North Carolina)	Candidate personal knowledge (California)
Education	.28***	.26***	.13*
Age	-.04	-.03	.27***
Income	.05	.10**	.11
Gender: female	-.20***	-.20***	-.17***
Ideology: liberal	.09	-.04	.11
Party ID: Democrat	-.01	-.06	-.12
Party ID: GOP <sup>a</sup>		.04	
Intend to vote		.14**	
Race: Black		.01	
Residence: urban		.02	
Voting for Clinton	.05	.14**	.12
Voting for Bush	-.01	.06	.01
Voting for Perot	-.17**	.05	-.02
Occupation: working		-.04	
Education missing <sup>b</sup>	.06	.04	-.02
Age missing <sup>b</sup>	.00	.04	.09
Income missing <sup>b</sup>	-.04	-.07*	.00
Ideology missing <sup>b</sup>		-.04	
Occupation missing <sup>b</sup>		-.05	
<i>R</i> <sup>2</sup> total equation	.204***	.282***	.146***
Sample size	344	841	344

Note: Entries are beta weights from multiple regression.

a. In the North Carolina study, party identification was scored as two dummy variables; in the California study, a single continuum was created, ranging from strong Republican to strong Democrat.

b. Missing data were dummy coded to remove their effect from regression analysis (Cohen & Cohen, 1983).

\**p* < .05; \*\**p* < .01; \*\*\**p* < .001.

and effects testing. On one hand, they should correlate with precampaign knowledge such as party-issue differences, because people who have been consulting these media habitually have had considerable opportunity to learn, regardless of what happens in the campaign. At the same time, as these habits of media use persist into the campaign year, they should also account for new learning that is specific to the candidates of 1992. By testing the effects on learning of these general measures of media use, then, we are creating more conservative tests of the further influence of campaign-specific communication in our later analyses. For this reason, we will test each effect separately before we undertake the hierarchical tests in which these media habits are controlled prior to testing effects of campaign media per se.

The variables in the second block in Table 2 measure attention to various campaign-specific media that were well-established sources of voter learning



Table 2  
*Three Types of Knowledge, by Media Predictors*

Predictor	Dependent variable:		
	Party-issue knowledge (California)	Candidate-issue knowledge (North Carolina)	Candidate personal knowledge (California)
Newspaper reading	.16**	.07*	.23***
TV news frequency	.14*	.13***	.28***
Magazine reading		.06*	
<i>R</i> <sup>2</sup> Block 1	<i>.037***</i>	<i>.018***</i>	<i>.105***</i>
Newspaper stories read		.13***	
Newspaper campaign attention	.18***		.23***
Attention to TV news	.06	.15***	.19***
Attention to radio news	.09		.07
Attention to TV ads	.05	.04	-.04
Convention viewing	.15**		.28***
Debate viewing	.14**		.18***
<i>R</i> <sup>2</sup> Block 2	<i>.025</i>	<i>.016***</i>	<i>.038**</i>
Candidate interviews	.06		.12*
Attention to MTV interviews		-.09**	
Attention to talk shows		.13***	
Attention to nighttime shows		-.01	
<i>R</i> <sup>2</sup> Block 3	<i>.000</i>	<i>.025***</i>	<i>.001</i>
Total <i>R</i> <sup>2</sup>	<i>.266***</i>	<i>.341***</i>	<i>.290***</i>

Note: Cell entries are beta weights from an equation that adds each listed media variable to the total equation shown in Table 1. Entries in italics are incremental *R*<sup>2</sup> values for the block immediately preceding, when added to the total equation that includes all variables listed above and in Table 1. Total *R*<sup>2</sup> for the two tables combined is shown at the bottom.

\**p* < .05; \*\**p* < .01; \*\*\**p* < .001.

prior to 1992. First, we enter items that ask about attention to the campaign in newspapers and in television news. These questions are not wholly separable, either conceptually or operationally, from the prior set of questions about habitual uses of these media. But some studies do show that questions about frequency of exposure to news media fail to capture the full impact of these media on public knowledge, when compared to questions regarding attention to specific content such as the campaign (Chaffee & Schleuder, 1986; McLeod & McDonald, 1985). These two items are followed by analogous questions about attention to television ads (following the contention of Patterson and McClure, 1976, that ads are a major source of candidate-issue learning); and, in the California study only, attention to radio news of the campaign and to the party conventions and candidate debates of 1992. In the North Carolina study, both the TV news and TV ads questions were asked separately regarding each candidate.

The final block of media variables in Table 2 consists of novel items designed to tap new sources of variance: the candidate interviews and

appearances in unusual television venues during the 1992 campaign. These items, concocted on the spot as these unique media events unfolded, were quite different for the two surveys. In California, questions were asked about interviews of each candidate (Bush, Clinton, Perot, Quayle, Gore), whereas in North Carolina the questions referred to different kinds of programs (MTV, talk shows, and nighttime shows). Exact comparability is impossible given these very different measures, but the index of listening to the five candidates on interview shows in the California study is probably comparable to the question about talk shows in the North Carolina study.

The reliabilities of these independent variables, most of them single-item measures, are presumably rather low. Hence we should expect fairly low correlations<sup>7</sup> as a rule, for any single media predictor. Related variables that are added as a block in hierarchical regression are collectively more reliable, and provide the more important tests of significance here. We assume preliminarily that the multi-item tests of knowledge are of approximately equal, and reasonably high, reliability; this can be evaluated later, by comparing the overall predictability of the three knowledge measures. Because the candidate-issue knowledge measure is based on the fewest items, its total  $R^2$  value in these equations will provide a conservative test of this assumption.

## Findings

Before examining the effects of the various media we will consider the results of the control analyses. Table 1 reports beta weights from the base equations predicting the three knowledge indexes. Overall, the  $R^2$  value in the North Carolina study exceeds that for either analysis of the California data. This corroborates our assumption that the dependent variable in North Carolina was at least as reliable as the other knowledge indexes (which are based on more items). The  $R^2$  for the Candidate Personal Knowledge index is particularly low.

The differences in  $R^2$  between the two studies are explainable first by the larger number of control variables in the North Carolina study; one of the strongest, intention to vote, was not a variable in California, where only preregistered voters were interviewed. Second, the control variables that account for the Personal Knowledge index are different from the correlates of the Issue Knowledge measures in both surveys. Education is the strongest predictor of both Party-Issue Knowledge (North Carolina) and Candidate-Issue Knowledge (California), but it is not nearly so strong a predictor of Personal Knowledge. This makes sense; schooling does not directly prepare a student to answer specific questions about the personal attributes of Bush,

Clinton, or Perot, except to the extent that education fosters heightened attention to news media.

Although the main purpose of the control equations is to remove possible sources of spuriousness before we examine media effects, a few findings in Table 1 are worth noting. One is the consistent pattern of knowledge differences related to the voting intention measures that represent the three candidates. Although the betas vary from study to study due to other factors in the equations, the ordering is the same in all three analyses: Clinton voters are consistently the most knowledgeable, Perot voters the least. This result is interesting when coupled with the consistent finding of a negative (albeit nonsignificant) relationship between identification with the Democratic party and each knowledge index.<sup>8</sup> It is as if the best-informed voters were independents who decided to vote for Clinton, an interesting swing group. Perot voters are notably low only in knowledge about the major parties; the Perot and Bush voters do not differ significantly on either measure of candidate knowledge.

Many of the demographic variables in Table 1 show little or no relationship to knowledge, when the others are controlled. An exception is gender; in both surveys and by each indicator, the women respondents tend to be less knowledgeable.<sup>9</sup> Race, occupation, and residence, which were measured only in the North Carolina study, produce no differences in knowledge. Age is related only to the Personal Knowledge measure. Neither income nor ideology adds much to any of the equations. The dummy variables that control for effects of missing data are almost all nonsignificant (with one exception out of 11 tests). Overall, these three base equations set the two studies roughly at par, and they reduce the likelihood of spurious relationships between knowledge and the media variables, to which we now turn.

Table 2 reports, for each knowledge index, a beta weight (tested by increment to  $R^2$ ) representing the predictive power of each media variable when it was added to the base equation shown in Table 1. Table 2 also reports incremental  $R^2$  values for each successive block of measures, which represent hierarchical additions to the communication effects analysis. The  $R^2$  values for each block are shown in italics, immediately below the lines that list the specific measures that were added by the block. The  $R^2$  values in Table 2 for Block 2 and for Block 3 are increments, beyond a base equation that consists of all the variables listed above in Table 2 and in Table 1.

The first predictor variables tested in Table 2 are habitual media use measures, that is, individual differences that might well have existed prior to the campaign. Each of these makes a significant contribution to each knowledge measure, and each of the three Block 1 tests shows a significant

increment to variance beyond the base equation. For Party-Issue Knowledge, which would for most people have existed in some measure even before the campaign, reading the newspaper is the stronger predictor—although it is not significantly more so than is the frequency of watching TV news. For Candidate-Issue Knowledge on the other hand, the TV news measure is a considerably stronger predictor than is newspaper reading.<sup>10</sup> Both TV news and the newspaper, as media habits, are strong and significant predictors of Candidate Personal Knowledge. Newsmagazine reading (measured in North Carolina only) adds only slight predictive power.

The second block of media variables represents use of various traditional campaign-specific media. Each of these second blocks adds to its overall equation, although the contribution to Party-Issue Knowledge falls short of statistical significance,  $p < .10$ . The significance tests in the California study are somewhat affected (in favor of the null hypothesis) by the inclusion of the measures representing radio news and televised candidate advertisements, neither of which added anything to any equation. Attention to the campaign in newspapers and in TV news both contribute to explaining variance in knowledge, as was the case for these same news media in Block 1 (habitual media uses). Newspaper attention is the strongest predictor of Party-Issue Knowledge, whereas TV news is the strongest for Candidate-Issue Knowledge. Further analyses (data not shown) indicate that, when the habitual and campaign-specific measures are combined, the newspaper measures account for more variance in Party-Issue Knowledge, whereas the TV measures predominate for Candidate-Issue Knowledge. The general conclusion is that television news is an important source of current information, whereas newspaper readers accumulate more long-term, enduring forms of knowledge.

Both TV news and the newspaper are, by both the habitual and the campaign-specific measures, also strong predictors of the Personal Knowledge index. Indeed, the simple measure of frequency of watching network TV news (California study) is as strong as any predictor of Candidate Personal Knowledge.

The California data also seem to show important contributions based on viewing of the televised conventions and debates. We should perhaps take these latter relationships with a grain of salt, however. The Personal Knowledge measures (and one half of the Party-Issue Knowledge measures) were administered in a mid-summer wave of the California panel survey, before either the party conventions or the candidate debates had taken place. Thus the strong relationships among these items in Table 2 probably bespeak selective exposure more than they do media effects. The pattern is, as Sears and Freedman (1967) suggested in their literature review on voluntary

exposure to political information, one of citizens who are already knowledgeable paying a good deal of attention to these special campaign media events. This reminds us, too, not to overinterpret the effects implications of our results. The most judicious reading of these findings is that both newspapers and television news are associated with greater knowledge of all three kinds represented in our measures. For enduring knowledge about the policy thrusts of the parties, the newspaper variables stand out, in both Block 1 and Block 2. For the more transitory knowledge associated with particular candidates, including both their issue positions and their personal attributes, television and special televised campaign events are the stronger correlates.

At the bottom of Table 2 is a third block of variables, representing questions about the innovative forms of campaign media that were emphasized in 1992. The California study included only a measure based on the person's self-reported listening (for 10 minutes or more) to each of five candidates: Clinton, Bush, Perot, Quayle, and Gore. This index did significantly predict Candidate Personal Knowledge, but it added nothing to the overall equations when the variables in the first two blocks were controlled (i.e., the increment to  $R^2$  was not significant). In the North Carolina study, on the other hand, two significant betas and a significant increment to the overall equation were added, when the three measures of 1992 media innovations were entered as predictors of Candidate-Issue Knowledge.

Specifically, attention to appearances of the candidates on talk shows seems to have improved people's knowledge of the issue positions of those candidates; the MTV audience, on the one hand, turned out to be less knowledgeable than the average citizen.<sup>11</sup> The pattern of findings across the columns in Table 2 may reveal something about the content of these different formats. In talk shows, candidates are often asked about issues and express their positions; a detailed content analysis might show, however, that they are less often asked to speak for their political parties. For now, we should conclude that at least this one campaign format that emerged in 1992, the interview or talk show, did add to the public's store of knowledge about the candidates and their issue positions.

## Discussion

Viewed most broadly, this study adds to the documentation of television's emergence as the principal medium of campaign communication. That conclusion has been offered with increasing frequency over the past several decades, but usually with several caveats. Television, it has been asserted, is a medium of persuasion and entertainment, but not of serious learning.

The newspaper, many have held, is the medium of choice among knowing (and information-seeking) citizens. TV news is often denigrated as superficial and contrived by critics who readily concede that television is a superior means of conveying actualities such as debates and speeches and candidate personalities.

In this study, though, we find that TV news stands out particularly in relation to knowledge about issue differences between the candidates—hardly a superficial or irrelevant topic of voter learning. The contributions of televised ads to knowledge, of which many positive things have been said in the past, appear to be negligible in these surveys. But the other kinds of television events—conventions, debates, and in 1992 the candidate interviews and talk show appearances—are also associated with higher levels of candidate-issue learning. Without TV we would have had much less to study in the 1992 campaign, but more important, voters would probably have had less information.

That is not to downgrade the contribution of newspapers, which as in virtually all studies seem to have increased voters' political knowledge. The newspaper as an institution continues to account for the initial production, as well as citizens' reception, of much campaign news coverage. But television as a channel is proving itself the equal of the newspaper in the conventional news transmission sense. And it is the more versatile medium, the one that conveys live speeches and debates, so that voters can observe the whole person, as the candidates respond to substantive questions in various testing formats. One fear has been that television's very capacity to convey images will detract from voting on the issues. From the evidence here, though, that will not occur due to people's not learning about candidate issue differences; TV does seem to help them in that way.

What may be getting lost in television's ubiquitous candidate-centered presentation of the campaign is the political party, both as an institution and as a source of voter identity and decision making. If we compare the two analyses of the California study, we see in Table 2 that the media predictors of Candidate Personal Knowledge are much higher than the corresponding figures for Party-Issue Knowledge. This is particularly the case for the coefficients associated with TV news; it is true only to a lesser extent for the newspaper. The undermining of political parties as electoral institutions is a long-term effect of television feared by thoughtful political scientists (e.g., Ranney, 1983), and the extensive interview shows of 1992 seem to have done nothing to reverse that trend.

## APPENDIX

Variable	Wording
<b>California Study</b>	
<b>Independent Variables</b>	
Newspaper reading	In a typical week, how many days do you read a newspaper?
TV news frequency	About how many days a week do you usually watch national news on TV?
Newspaper campaign attention	On a scale of 1 to 5 where 1 is <i>not at all</i> and 5 is <i>a lot</i> , how much attention are you paying to the campaign in the newspapers?
Attention to TV news	(scale repeated) how much attention are you paying to TV news about the election campaign?
Attention to radio news	(scale repeated) how much attention are you paying to radio news and talk shows about the campaign?
Attention to TV ads	(scale repeated) how much attention do you pay to TV ads for the candidates?
Convention viewing	Now, think back to the party conventions on TV this past summer. On a scale of 1 to 5 where 1 is <i>not at all</i> and 5 is <i>a lot</i> , how much attention did you pay to the Democratic party convention in July? And how much attention did you pay to the Republican party convention in August?
Debate viewing	Have you watched any televised debates this fall? (if yes) Which candidates did you watch debate? (Bush & Clinton; Gore & Quayle; Feinstein & Seymour; Boxer & Henschensohn; Other; Don't remember which ones)
Candidate interviews	Recently, the candidates have been interviewed a lot on TV and radio. Have you listened for more than ten minutes to an interview with George Bush? Just answer yes or no. Have you listened for more than ten minutes to an interview with Bill Clinton? with Dan Quayle? with Al Gore? with Ross Perot?
<b>Dependent Variables</b>	
Party-Issue Knowledge	Now, some political issues. On a scale of 1 to 5, which party is more in favor of these positions? A 5 means the Republicans are strongly in favor, a 1 means the Democrats. Answer 3 if you don't think there is any difference between the parties. First, Affirmative action for minorities. Aid to families with dependent children Building more prisons Federal grants to cities Federal vouchers for private school students Less regulation of business

(continued)

APPENDIX Continued

Variable	Wording
<b>California-Study</b>	
Dependent Variables	
Party-Issue Knowledge	Protection of endangered species Prayer in public schools Reduce military spending Restrictions on abortion Cutting capital gains taxes Equal rights for women Federal vouchers for parochial school students Free trade with other countries Gun control Letting the market decide Protection of civil rights Reducing the deficit by raising taxes Strict environmental protection Tougher antidrug laws
Candidate Personal Knowledge	The next few questions ask some personal facts about Bush, Clinton, and Perot. If you don't know the answer, just say so. Do you know who is the oldest, Bush, Clinton, or Perot? Who is the shortest? Which one says he dislikes broccoli? Which one was a successful computer salesman? Who has Mexican-American grandchildren? Which one was a star first baseman on his college baseball team? Which one plays the tenor saxophone? Which one was a Rhodes Scholar? Who has been endorsed by Arnold Schwarzenegger? Which one was head of the CIA?
Variable	Wording
<b>North Carolina Study</b>	
Independent Variables	
Newspaper reading	How many days out of the last 7 did you read a daily newspaper?
TV news frequency	How many days out of the last 7 did you watch the local or national news on television?
Magazine reading	Let me ask you about newsmagazines, such as <i>Time</i> , <i>Newsweek</i> , or <i>U.S. News and World Report</i> ? Did you read any of these during the past 2 weeks? (Yes, No, Don't Know)
Newspaper stories read	How many stories about the election have you read in the newspaper? A lot, some, only a few, or none at all?
Attention to TV news	How much attention have you paid to television news coverage about George Bush? A lot of attention, some attention, only a little attention, or no attention at all?



## APPENDIX Continued

Variable	Wording
<b>North Carolina Study</b>	
<b>Independent Variables</b>	
Attention to TV news	How much attention have you paid to television news coverage about Bill Clinton? (scale repeated)
Attention to TV ads	How much attention have you paid to television commercials for George Bush? (scale repeated) How much attention have you paid to television commercials for Bill Clinton? (scale repeated)
Attention to MTV	Lots of different kinds of TV programs have discussed voting and elections this year. Please tell me how much attention you have paid to political discussions on these types of programs: What about voting and election discussions on MTV? Have you paid a lot of attention, some attention, only a little attention, or no attention at all?
Attention to talk shows	What about talk shows, like Donahue, Larry King Live, or Rush Limbaugh? How much attention have you paid to voting and election discussions on those programs? (scale repeated)
Attention to late shows	How much attention have you paid to voting and election discussions on late night talk shows, like Arsenio, the Tonight Show with Jay Leno, or David Letterman? (scale repeated)
<b>Dependent Variables</b>	
Candidate-Issue Knowledge	Which candidate, George Bush, Bill Clinton, or Ross Perot is more likely to favor the following statements? The first statement is: Taxes should be increased for those households who earn more than \$90,000 a year. A Constitutional Amendment should ban abortions except in cases where a mother's life is in danger. The capital gains tax should be cut almost in half. The nation should have universal health care paid for by the employers. The government should pay college costs for young people who are willing to repay the debt with public service. The federal budget deficit should be reduced by imposing a 50 cent per gallon increase in the gasoline tax over 5 years. More areas should be opened for oil drilling.

## Notes

1. There is no clear-cut method to divine what Perot, Clinton, and Bush, or the Republican and Democratic parties, really believed or wanted. This study relies upon a socially constructed definition of the correct answers, based upon what the candidates

and the parties said about their policy positions. Validation of each measure is based to some extent on what most voters believed the relative positions were. Ambiguous issues were deleted from the surveys at various stages of the study process.

2. Each is also popularly thought to influence the direction of the vote, although the evidence is less clear than for informational effects.

3. Debates involving more than two candidates for one party's nomination had been televised in a few states during early primary election campaigns in several previous years. But major-party nominees had, until 1992, avoided debating either minor-party or strong third-candidate opponents, by various means including not debating (e.g., with George Wallace in 1968) and by holding several pairwise debates (with John Anderson in 1980).

4. Campaigning techniques are constantly evolving, and not all media innovations persist. For example, in the early years of television, candidates sometimes tried to win last-minute votes by staging election-eve telethons. This consisted of purchasing the entire evening of one channel just before Election Day. Viewers were encouraged to call in with their questions, which the candidate would answer on live camera. At least one study (Schramm & Carter, 1959) showed that the audience was small and effects on the vote were minimal, and the practice has been discontinued.

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7. The maximum observable correlation between two measures, if the variables are in reality perfectly correlated, would theoretically be the product of their two reliability coefficients.

8. This could be a spurious relationship, but this is unlikely at least in the California sample, where education is positively related with Democratic party membership,  $r = .14, p < .05$ .

9. The beta weights are inflated somewhat by a negative correlation between female gender and education,  $r = -.14, p < .01$ .

10. Although the newspaper measures in the two surveys are comparable, the newspapers themselves are not. The California study was conducted in mostly urban counties with metropolitan newspapers that cover national politics thoroughly; some 85% of the respondents in this survey read a large urban-market daily such as the *Los Angeles Times*, *San Francisco Chronicle*, *Orange County Register*, *San Jose Mercury News*, or *San Diego Union*. In North Carolina, most people live in small cities and rural places and read mostly localized newspapers that tend not to cover national candidates in great depth. The control in Table 1 for urban residence is insufficient to account for this difference between the media resources in the two states; the largest city in North Carolina is only about one fifth the population of three of the four counties sampled in the California survey. Hence the weak relationship between newspaper reading and Candidate-Issue Knowledge in the North Carolina study might represent differences between the media in the two sites, rather than differences in the kind of knowledge learned from newspapers in general.

11. Although the multiple regression analysis controls linearly for age and education, the MTV audience represents a unique intersection of these and other, unmeasured attributes. The MTV audience was probably lower in political knowledge when the campaign began, and Clinton's appearance on that channel would have had to be extremely informative about Bush and Perot as well, to produce a positive beta coefficient on the Candidate-Issue Knowledge index in the context of the North Carolina general population survey.

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