

# CAMPAIGN MIXED-MESSAGE FLOWS AND TIMING OF VOTE DECISION

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## ABSTRACT

The impact of a campaign on voters' decisions depends, in part, on when voters make their decisions. Voters who decide at the start of a campaign will be much less influenced by the campaign than those who decide at the end. But what explains *when* voters make their decisions? We address this question by focusing on two key factors: (a) the nature of the campaign information environment—that is, the extent to which it is one-sided or partial to one candidate as opposed to mixed with equally favorable information for both candidates, and (b) individual openness to persuasion—specifically, the extent to which individuals are ambivalent about the candidates. We find that mixed information delays the decisions of voters who are the most ambivalent, above and beyond voters' demographics, political knowledge, interest, and partisan strength. In short, timing of vote decisions depends on an interaction between the competitive nature of the campaign and individual susceptibility to persuasion.

Over the past several years, an increasing number of voters report making up their minds late in the campaign. In the United States, for example, the number of National Election Studies respondents who knew their presidential candidate of choice 'all along' has dropped from approximately 40 percent in the 1940s and 1950s to well under 20 percent in the 1990s and 2000s. In 2000, 23 percent report making their decision during the last two weeks of the campaign or on Election Day (Zaller, 2004; American National Election Studies, 2007). Likewise in Europe, over a fifth of those 'certain they would vote' in the German 2005 general election remained undecided on their vote choice 2 weeks before Election Day (Schmitt-Beck & Faas, 2006), and 40 percent of French voters were undecided on the eve of the first round of the 2007 general election (Reuters, 2007). What leads voters to delay their decisions? Do voters decide late because they lack political interest and awareness, hardly follow any news, and thus lack relevant information to make up their minds? Alternatively, do voters decide late because they face an increasingly competitive campaign environment

that communicates an abundance of mixed information? Or does the mixed campaign environment interact with individual characteristics to affect late decision?

Timing of vote decision, the point at which a voter reports having made up his or her mind, has been suggested as a mediator of campaign effects on vote *choice* (Fournier, Nadeau, Blais, Gidengil, & Nevitte, 2004). Political communication researchers, nevertheless, face two challenges in their attempts to understand decision-*timing* as the dependent variable: (a) variability in the campaign information environment—that is, the extent to which it is one-sided or partial to one candidate as opposed to mixed with equally favorable information for both candidates, and (b) variability in individual openness to persuasion—specifically, the extent to which individuals are ambivalent about the candidates.

In this article, we test the effects of campaign information heterogeneity (mixed vs. one-sided messages) and individual receptivity to information on decision-timing. Our results show that voters' prior levels of resistance moderate the effects of mixed-information environments on decision-making. Put simply, voters delay their decisions when they are both ambivalent and face a relatively mixed information environment. We conclude with a discussion of our study's implications, in light of current trends in American politics: partisan polarization, dwindling electoral mass-engagement, and the fragmentation and homogenization of the contemporary public spaces in which political debate unfolds.

## COMMUNICATION AND TIMING OF VOTE DECISION

Timing of vote decision refers to the stage in the campaign at which a voter reports having decided on his or her electoral preference. Typically, the literature identifies three 'ideal types' (Chaffee & Rimal, 1996): the partisan ('pre-campaign') early deciders; those who decide during primaries, conventions, and debates ('campaign deciders'); or those who decide as late as the final weeks before Election Day ('last-minute deciders'). Past research suggests that voters can recall and report reliable estimates of their times of decision (Fournier, Nadeau, Blais, Gidengil, & Nevitte, 2001; but see Plumb, 1986).

Research on decision timing takes one of three paths: (a) the early Columbia School 1940s studies on conflicts and cross-allegiances in the voter's interpersonal environment ('cross-pressures') that delay vote decision (Lazarsfeld, Berelson, & Gaudet, 1944/1968; Berelson, Lazarsfeld, & McPhee, 1954/1968), (b) news attention profiles of the three 'ideal type' deciders, and (c) the effects of aggregate mass-mediated information-flows on electoral choice, as they vary by (i.e., are moderated by) voters' decision-times. Pre-campaign deciders tend to be more partisan, more educated, and more attentive to news and candidate debates.

Moreover, ‘campaign-deciders’ are more attentive and involved than ‘last-minute’ deciders (Chaffee & Choe, 1980; Whitney & Goldman, 1985; Bowen, 1994; Gopoian & Hadjiharalambous, 1994; Chaffee & Rimal, 1996).

Decision timing constitutes ‘a key mediating variable for campaign effects’ since campaign deciders have not formed a preference and therefore understandably rely on cues in their political information environment (Fournier et al., 2004, p. 682). For instance, later decision-time introduces variability in aggregate estimates of vote-choice, as increasingly fewer people’s electoral choice can be predicted from ‘long-term’ factors as stable partisan preferences, demographics, and assessments of a candidate’s prior record in office (Box-Steffensmeier & Kimball, 1999). Fournier et al. (2004) offer a more direct test of the moderating impact of decision-time on campaign effects by showing that, in the 1997 Canadian election, vote intention for the Conservative Party was predicted by the pro-Conservative tone of media coverage and debate viewing, but only among campaign deciders (for related work, see Zaller, 1996, pp. 44–47; see also Bowen, 1994; Sheafer, 2005).

While these studies advance our understanding of decision timing, little in aggregate-level content analyses of media coverage tone offers direct evidence to the effect of ‘*crosscutting* communication’ on decision time (Zaller, 1996, pp. 19–20, emphasis added). If ‘the mass media routinely carry competing political messages, members of the public who are heavily exposed to one message tend to be heavily exposed to its opposites as well’ (Zaller, 1996, p. 20). Consequently, the effects of crosscutting communication in the voters’ environments are ‘mutually canceling’ and ‘produce the illusion of modest impact’ (p. 20; see Bartels, 1993). Our study, in contrast, disaggregates media content to two analytically distinct information environments to test their effects on vote decision timing,<sup>1</sup> and does so outside the laboratory.

## CONFLICTING INFORMATION AND PREFERENCES

Numerous experimental studies demonstrate that the framing of information structures political preferences (for a review, see Chong & Druckman, 2007b). People’s support for an extremist group rally, for example, depends on whether the rally was framed as a ‘free speech’ or ‘public order’ event. As scholars have recently noted, however, the standard two-condition framing experiment is ‘confined to one-sided presentations. An argument is presented to evoke support for a policy, or opposition to it, but not both. But in real politics, of course, opposing candidates compete to put across their point of view’ (Saris & Sniderman, 2004, p. 5).

<sup>1</sup> Although we examine different outcomes, we follow the logic of studies that contrasted the effects of consonant to dissonant news coverage, or before vs. after shifts in coverage, on opinion dynamics (Peter, 2004; de Vreese & Boomgaarden, 2006).

Both the relative strength of and the competition between frames not only depict more realistic political debates, but also imply a more sanguine view of citizens' capacity to decide between alternative choices, as these resonate with a preexisting preference (Druckman & Nelson, 2003; Druckman, 2004a; Sniderman & Theriault, 2004; Price, Nir & Cappella, 2005; Chong & Druckman, 2007a). In a series of experiments, Sniderman and Theriault (2004) show that citizens are not simply being 'framed' by one elite argument or the other. Dual (mixed) frames, which express a clash of arguments in favor and opposition to policy choices, tighten 'the linkages of mass belief systems and increase the constraint between basic principles and specific issue choices' (p. 158).

What are the effects of conflicting information on time-of-vote decision? The argument that heterogeneity in the opinion environment hinders preference formation and delays vote decision dates back to the 1940s Columbia University campaign researchers, who coined the term *cross-pressures* to note 'conflicts and inconsistencies . . . which influence vote decision . . . Cross-pressures upon the voter drive him in opposite directions' (Lazarsfeld et al., 1944/1968, p. 53). While the original studies pertained to the voters' *interpersonal* environment (e.g., the preferences held by individuals in the voters' social network), we suggest the same insights could be applied even more appropriately to *mediated* contexts in which party competition unfolds, and in which individuals have a much higher chance of exposure to experiences and points of view unlike their own (Mutz & Martin, 2001). In other words, we focus on the mixed nature of the external informational environment and specifically the extent to which the environment is relatively one-sided as opposed to mixed (i.e., balanced; see Chong & Druckman, 2007a).

A straightforward application of the early Columbia network studies suggests that mixed external information environments should delay vote choice (e.g., as the voters consider conflicting information). Subsequent research on the electoral consequences of heterogeneous social environments has not concurred with the early Columbia School results (but see Mutz, 2002). Most studies to date suggest that higher heterogeneity of interpersonal discussion-networks produce a range of positive, civic-minded outcomes: partisan commitment (Knoke, 1990), political knowledge and efficacy (Hardy, 2005), electoral engagement and participation (McLeod et al., 1999; Scheufele, Nisbet, & Brossard, 2003; Huckfeldt, Johnson, & Sprague, 2004; Huckfeldt, Mendez, & Osborn, 2004; Scheufele, Nisbet, Brossard, & Nisbet, 2004; Hardy, 2005; Nir, 2005), and that network cross-pressures do *not* delay time-of-vote decision uniformly for all voters (Nir, 2005).

Nir (2005) explains the mixed empirical record on network cross-pressures by arguing that voters' receptivity to heterogeneous information varies with their internal ambivalence, such that the least ambivalent are able to resist counter-attitudinal incoming messages by counter-arguing and relying on

supportive discussants, whereas the most ambivalent absorb uncritically competing arguments from different sides of the political spectrum and therefore delay their decision—time closer to Election Day. Analyses of the NES 2000 data support the proposed moderating effect of ambivalence on time-of-vote decision (Nir, 2005). In short, there is not a uniform information environment effect—it depends on individual ambivalence.

In applying this logic to the external information environment, then, we would expect that the effect of mixed-message flows on delayed decision is moderated by individuals' internal ambivalence. This hypothesis resonates with more general work on political information acquisition that focuses on the interactions between campaign rhetoric and individual susceptibility (e.g., Converse, 1962; McGuire, 1969; Zaller, 1992; Druckman & Lupia, 2000).

We next test our hypothesis—that mixed information environments combined with ambivalence delay vote choice—with a novel empirical study. Our study is unique not only in its focus on mass mediated or external information instead of interpersonal opinion environments but also because we use disaggregated objectively coded informational environments (instead of relying on respondents' self-reports of exposure to crosscutting campaign messages).

## CONTRASTING ONE-SIDED AND MIXED FLOWS

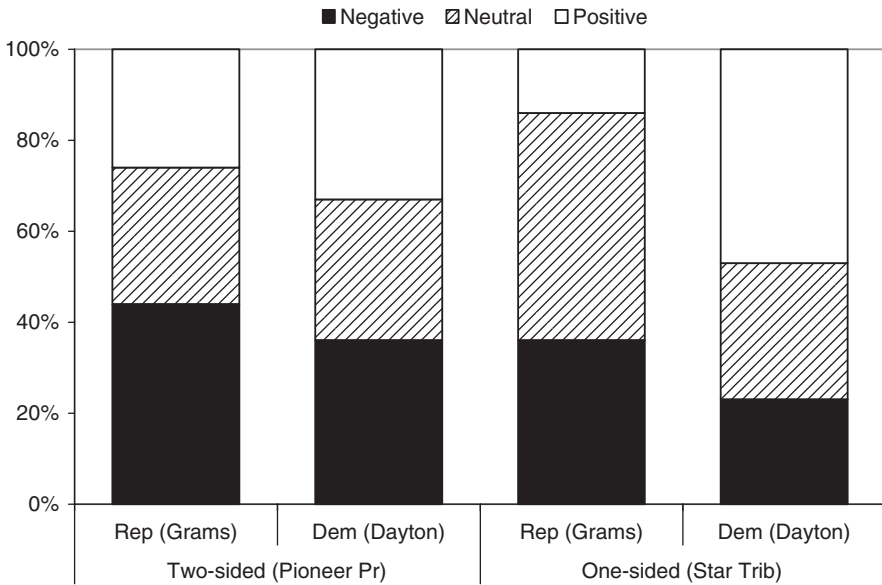
### STUDY CONTEXT

The study requires we identify voters who were exposed to relatively competitive news coverage of an event (e.g., campaign) and who can be compared with other voters who were not exposed to such coverage, outside the laboratory (Kinder, 2007). This is necessary to ensure variance in our key independent variable and to rule out confounding variables such as the nature of the campaign itself. It requires variation in content of different news sources (i.e., information), while holding constant the election race and media market. We therefore designed our study around a single race, the 2000 Minnesota Senate campaign, and a single media market, the Minneapolis-St. Paul area. The 2000 Senate campaign pitted Republican incumbent Rod Grams, a doctrinaire conservative, against a liberal Democratic challenger, Mark Dayton. During the campaign, *Congressional Quarterly* labeled Grams as the most vulnerable of incumbent Senators, and as a result, the race received considerable national attention. Dayton pulled forward in the final weeks, and won with 48.8 percent of the statewide vote, compared to 43.3 percent for Grams.

### CONTENT ANALYSIS

To assess the news information environment, a team of coders analyzed the two major local newspapers (*Star Tribune* and *Pioneer Press*) and four local

FIGURE 1 Content analysis of the campaign coverage tone, by newspaper and candidate



evening news programs everyday from just after the September 12th primary though Election Day on November 7th 2000. This resulted in a total of 213 news articles and 90 broadcast items on the Senate campaign (see Appendix for content coding). The campaign was covered much more thoroughly in print than broadcast news, with more stories overall and per single day, more lead stories on the campaign, and fewer days with no campaign coverage.

The *Star Tribune* newspaper offered relatively one-sided coverage for Dayton. For example, it offered significantly more positive than negative coverage of Dayton, significantly more negative than positive coverage of Grams. In contrast, the *Pioneer Press* provided nearly equal positive, negative, and neutral coverage of Dayton, fairly similar positive coverage for both Dayton and Grams, and fairly similar negative coverage of both candidates (Figure 1). At least in *relative* terms, then, the *Star Tribune* offered one-sided coverage while the *Pioneer Press* presented mixed coverage (also see Druckman & Parkin, 2005).

## METHOD

### SURVEY DATA

To explore the impact of these different news environments on voters, we conducted an Election Day exit poll. We selected randomly 17 polling

locations throughout the Twin Cities' metro area (both city and suburban locales) and sent teams of student pollsters to each location for a randomly assigned 2–3 hour daytime period. Each pollster asked every third voter to complete a brief self-administered questionnaire ( $N = 406$ ,  $RR2 = 85$  percent; Amercian Association of Public Opinion Research, 2004). The sample represented the population on key variables (e.g., education, age, gender, party identification) of actual voters, as well as the vote tally of 55 percent for Dayton (Dem.) and 37 percent for Grams (Rep.), which almost perfectly matched the actual totals that the candidates received in the metro area (Dayton received 54 percent and Grams received 36 percent).

#### DECISION TIME

The dependent variable was measured by asking: 'How long before the election did you decide to vote the way you did for the US Senate race?' Possible answers included 'knew before primary,' 'between primary and two weeks ago,' and 'less than two weeks ago.' The measure matches our content analysis, which began immediately after the September primaries, and is consistent with other work that reports analogous three-category items are reliable (Box-Steffensmeier & Kimball, 1999, p. 3; Fournier et al., 2001, p. 104; Fournier et al., 2004). Thirty-six percent of respondents reported deciding before the primary, another 36 percent decided between the primary and the final two weeks, and 28 percent made their decision in the final 2 weeks.

#### NEWS EXPOSURE

Respondents reported whether they subscribed to or frequently read either the *Star Tribune* or the *Press* and how many days over the last two months, on average, they read the front-page and/or metro sections of the paper. We use the number of days of reading a newspaper as an indicator of increased exposure to an information environment (e.g., Kahn & Kenney 2002, pp. 390–391). We focus on the front-page and metro sections because virtually all Senate coverage in both papers appeared exclusively in these sections. Our measures ask directly about specific habitual behaviors, rather than asking about 'regular' general usage (see Bartels, 1993, p. 269; Price & Zaller, 1993).

#### AMBIVALENCE

We follow the bulk of prior work by using a Griffin index, which accounts for both intensity and similarity of evaluations, to compute individual ambivalence (Thompson, Zanna, & Griffin, 1995; Lavine, 2001; Mutz, 2002;

Huckfeldt, Johnson, & Sprague, 2004; Huckfeldt, Mendez, & Osborn, 2004; Basinger & Lavine, 2005; Nir, 2005). Specifically, we asked respondents to rate each of the candidates with feeling thermometer items, on a scale from 0 to 10 (= very warm). We computed respondent's ambivalence =  $[(G + D)/2] - |G - D|$ . 'D' denotes Dayton's thermometer score, and 'G' denotes Gram's score. Ambivalence ranged from -5 (least ambivalent) to +10 (most ambivalent), and averaged across respondents  $M = -0.83$  ( $SD = 3.79$ ,  $N = 340$ ). A negative grand mean indicates an overall tendency to report a one-sided preference: positive evaluation of one candidate, negative evaluation for the other. Note however, ambivalence indexes are *non*-directional with regard to a *specific* candidate. Respondents favoring only one candidate and others favoring the other received the same (low) ambivalence score, compared to respondents who expressed a mixed preference.

We compared our ambivalence measure to one of the main alternatives, which relies on an analogous formula but uses open-ended likes and dislikes about each of the candidates, which we also asked on our survey (see Lavine, 2001, p. 919). Impressively, the correlation between this alternative measure and our measure is .83 ( $p < .001$ ), and none of the results reported below change if we instead use the like-dislike based measure. The validity of our measure is also confirmed by significant correlations with the inverse of extremity (i.e. weakness) of party identification ( $r = .32$ ;  $p < .001$ ) and the least extreme attitudes over the four most prominent issues in the given campaign ( $r = .37$ ;  $p < .001$ ; index Cronbach's  $\alpha = .71$ ).

## CONTROLS

Our exit poll included an exhaustive set of measures for other factors that may influence decision timing, including education, age, income, gender, minority status, political interest, political knowledge, strength of party identification, following the campaign and local news exposure (number of days a week the respondent typically watched local news).

## RESULTS

### GROUP COMPARABILITY

Although we argue that information environments are key to understanding campaign effects, differences in decision-time might be simply due to variations in education level, political knowledge or interest of readers of the two newspapers, variations that are confounded with the choice of newspaper. To rule out this explanation, we tested for systematic differences across the two readership groups. As seen in Table 1, means-comparison tests confirmed there were hardly any differences between the readers of both newspapers on key



TABLE 1 Profile of exit-poll respondents, by newspaper

<i>Variable</i>	<i>Measurement</i>	<i>Star Tribune</i>	<i>Pioneer Press</i>
Education ( <i>N</i> = 399)	1 = Less than high school to 5 = Advanced degree	<i>M</i> = 3.78 <i>SD</i> = .97 <i>n</i> = 236	<i>M</i> = 3.67 <i>SD</i> = 1.08 <i>n</i> = 141
HH income ( <i>N</i> = 384)	1 = < \$30,000 to 3 = > \$70,000	<i>M</i> = 2.09 <i>SD</i> = .76 <i>n</i> = 228	<i>M</i> = 2.09 <i>SD</i> = .75 <i>n</i> = 137
Age ( <i>N</i> = 403)	1 = 18–24 years, to 7 = 75+ years	<i>M</i> = 3.09 <i>SD</i> = 1.55 <i>n</i> = 240	<i>M</i> = 3.38 <i>SD</i> = 1.58 <i>n</i> = 141
Percentage male ( <i>N</i> = 406)	Male (50.5 percent) Female (49.5 percent)	49 percent <i>n</i> = 241	53 percent <i>n</i> = 142
Percentage minority ( <i>N</i> = 409)	White (84 percent); African American (3 percent); Asian American (3 percent); Hispanic (2 percent); Other (9 percent)	10 percent <i>n</i> = 241	11 percent <i>n</i> = 143
Party identification ( <i>N</i> = 397)	1 = Strong Democrat to 7 = Strong Republican	<i>M</i> = 3.18 <i>SD</i> = 1.85 <i>n</i> = 236	<i>M</i> = 3.35 <i>SD</i> = 1.81 <i>n</i> = 138
Interest in politics ( <i>N</i> = 407)	1 = Not interested to 7 = Extremely interested	<i>M</i> = 4.72 <i>SD</i> = 1.47 <i>n</i> = 240)	<i>M</i> = 4.65 <i>SD</i> = 1.66 <i>n</i> = 142
Followed the Senate campaign ( <i>N</i> = 409)	1 = Not at all to 4 = Very closely	<i>M</i> = 2.41 <i>SD</i> = 1.08 <i>n</i> = 226	<i>M</i> = 2.49 <i>SD</i> = 1.08 <i>n</i> = 145
Political knowledge ( <i>N</i> = 406)	0–2 Correct responses	<i>M</i> = 1.23 <i>SD</i> = .84 <i>n</i> = 241	<i>M</i> = 1.17 <i>SD</i> = .82 <i>n</i> = 142
Days a week watch local news ( <i>N</i> = 394)	0–7 Days a week	<i>M</i> = 4.63 <i>SD</i> = 2.18 <i>n</i> = 232	<i>M</i> = 4.29 <i>SD</i> = 2.26 <i>n</i> = 137
Percentage voted for Dayton ( <i>N</i> = 403)	Reported Senate vote	57 percent <i>n</i> = 238	57 percent <i>n</i> = 142

*Data:* Minnesota, Twin Cities metro area Election Day exit poll, 2000.

demographics and political attitudes. For example, there were no significant differences across readerships in education level, household income, age, race and gender, nor were there significant differences in party identification, interest in politics, and political knowledge. Indeed, the key factor that seems to determine exposure in this market is geographic location (e.g., living in St. Paul or not), and not political inclinations (Druckman, 2004b). As a result, we can treat the groups as comparable insofar as selection is based on factors orthogonal to the variables of interest.

## MODERATION

We test our hypothesis that ambivalence moderates the effect of information flows on decision timing by running an ordered probit regression with time of vote decision as the dependent variable. Our main independent variables include our ambivalence measure, a news exposure measure for each paper (mixed *Pioneer Press* and one-sided *Star Tribune*), and interactions between ambivalence and each exposure measure. Our prediction suggests that we will find a positive significant interaction between ambivalence and the mixed exposure measure—that is, mixed exposure will delay vote choice, but only among those with high ambivalence. Our analysis also includes controls for respondents' demographics, partisanship, political interest, and knowledge.

The results in Table 2 strongly support our expectation. Increased exposure to the mixed *Pioneer Press* coverage caused increasingly ambivalent voters to take longer to make up their minds—the interaction is positive and highly significant. In contrast, the relatively one-sided coverage of the *Star Tribune* neither precipitated nor delayed the vote decisions of ambivalent voters. Even controlling for a number of alternative explanations for late decision, voters' demographic characteristics (of which only age is associated with late decision), political interest, and partisanship strength, the interaction term remains significant.<sup>2</sup>

To depict the substantive effect of the interaction between information environment and individual ambivalence, we charted the probability of making a vote decision during the last two weeks of the campaign, by the number of days reading the *Pioneer Press* and the *Star Tribune*, respectively. We generated these probabilities using *Clarify* (see Tomz, Wittenberg, & King, 1999). Figure 2 shows the probabilities of late decision for high ambivalence individuals (ambivalence at the maximum level) and low ambivalence individuals (ambivalence at the minimum level), and set all other variables to their means. The top figure provides the results for reading the *Pioneer Press* while the bottom does so for the *Star Tribune*.

Both figures show that ambivalent individuals exhibit a substantially higher probability of making a late decision, regardless of the paper to which they are exposed (e.g., compare the lines for low and high ambivalent individuals in both graphs). This reflects the ambivalence main effect in Table 2.

More importantly, the figures show that, in only one case, does the changing nature of the information environment affect the timing of vote decision. As predicted, increased exposure to the mixed *Pioneer Press* information leads highly ambivalent individuals to substantially delay their

<sup>2</sup> We also analyzed the data using a dichotomous outcome variable, which identified voters as either deciding before the primary, or after the primary (i.e., voters who decided between the primary and the final two weeks and voters who decided during the final two weeks). When using a dichotomous variable, all of the results reported in Table 2 are robust and even stronger.

TABLE 2 Predictors of late vote decision

	<i>B</i>	<i>SE</i>
Controls		
Education	.24	.28
Age	-.51**	.28
Income	.02	.18
Male	.03	.13
Minority	.03	.23
Political engagement		
Interest	-.44**	.26
Knowledge	.04	.16
Party ID strength	-.80***	.19
TV local news	.19	.21
Ambivalence	.79**	.41
Newspaper		
Mixed ( <i>Pioneer Press</i> )	-.24	.23
One-sided ( <i>Star Tribune</i> )	-.16	.23
Interaction		
Mixed × ambivalence	1.30**	.69
One-sided × ambivalence	.05	.66
$\tau_1$	-.79	.33
$\tau_2$	.29	.33
<i>Log Likelihood</i>	-334.26	

Note: Entries are ordered probit coefficients and standard errors.

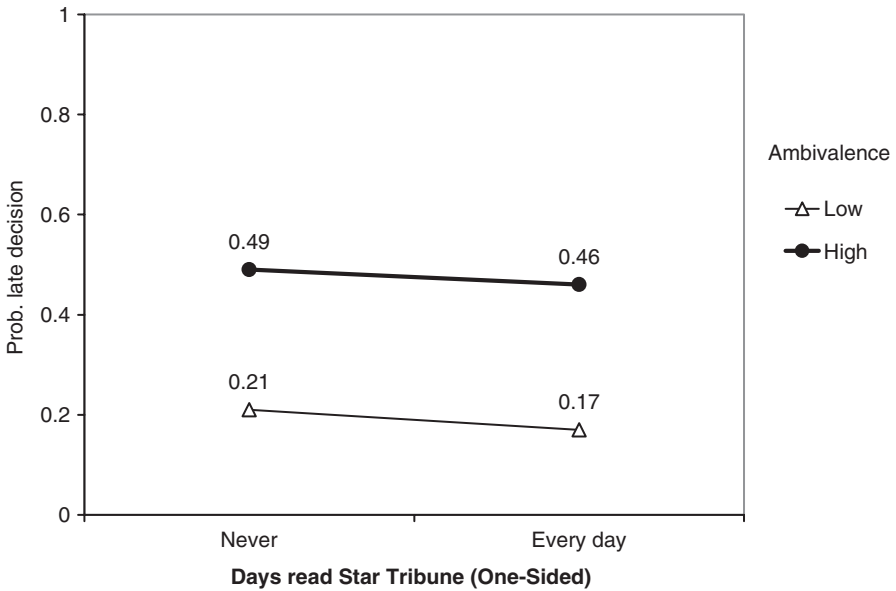
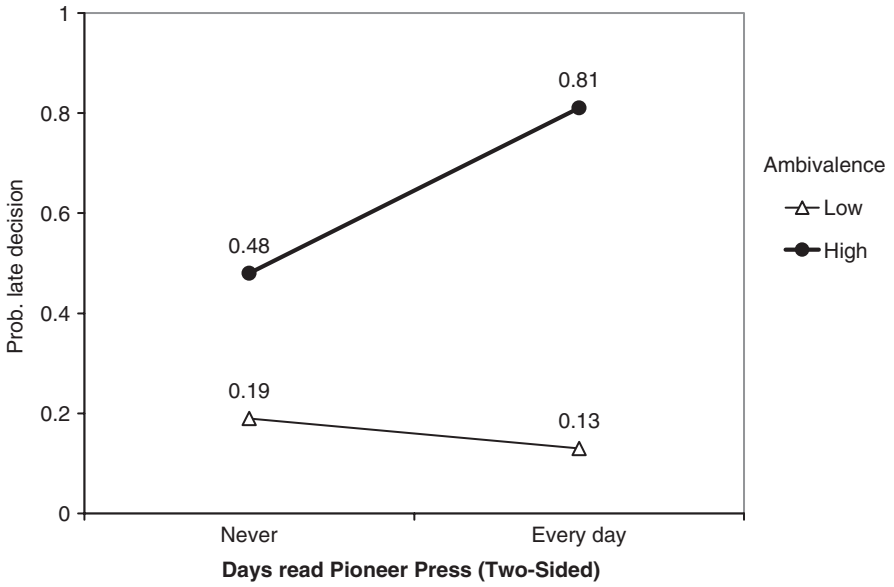
Data: Minnesota Senate Race 2000, exit poll ( $N=340$ ).

Question wording: 'How long before the election did you decide to vote the way you did for the US Senate race?' (Knew before primary; between primary and two weeks ago; less than two weeks ago).

\*\*\* $p \leq .01$ ; \*\* $p \leq .05$  for one-tailed tests.

vote decision. The nature of the information environment clearly matters but only for highly ambivalent individuals. For example, the probability that low ambivalent individuals delay their decision until the last two weeks is largely the same regardless of information environment (i.e., the lines are flat for low ambivalent individuals in both figures); it ranges only slightly from .13 (*Press* every day readers) to .21 (*Star Tribune* never readers). Similarly, the probability that highly ambivalent voters who are not exposed to the *Press* delay their decision ranges slightly from .46 (*Star Tribune* every day readers) to .49 (*Star Tribune* never readers)—that is, the line is flat for highly ambivalent *Star Tribune* readers). But, those ambivalent voters who are exposed to the *Press* every day exhibit an increased probability of making a late decision all the way up to .81. In other words, the nature of the information environment exhibits a substantial and significant effect only for ambivalent people—in naturally occurring competitive campaign environments, the moderately-receptive ambivalent individuals take substantially longer to make up their mind.

FIGURE 2 Probability of vote decision in the last two weeks of the campaign: Ambivalence moderates the effect of exposure to mixed information flows on late decision



Note: Predicted probabilities are based on respective interaction terms (*Press* or *Tribune* Reading  $\times$  Ambivalence) in Table 2. All other variables are held constant at their means.

## MEDIATION

We argue and show that ambivalence *moderates* the impact of the information environment. An alternative possibility is that it acts as a *mediator*, such that a mixed information environment directly impacts ambivalence, which in turn delays vote decision. If this were the case, we would see a positive and significant relationship between mixed coverage (*Pioneer Press*) and ambivalence, mixed coverage and late decision, and ambivalence and late decision. That is, the mixed information environment would directly affect time of vote decision, as would ambivalence. Then, once we controlled for ambivalence in the regression of time of vote on information environment, the relationship between mixed coverage and late decision would disappear.

We report these analyses in Table 3. The results provide no evidence for the mediation alternative. Although increased ambivalence is significantly associated with a late decision (Table 3, column late decision 2), news-flows affect neither ambivalence (Table 3, column ambivalence), nor decision-time (Table 3, column late decision 1). To reiterate: A mixed information environment of the *Pioneer Press* was not significantly associated with an overall increase of ambivalence among voters, nor postponed their decisions. The evidence does not support a mediation explanation; rather, as we hypothesized ambivalence moderates the impact of the information environment.

## DISCUSSION

This study tested whether ambivalence, that is: the individual's endorsement of competing considerations in evaluating political contenders, moderates the effect of mixed news-coverage on timing of vote-decisions. In multivariate regression analyses, controlling for respondents' demographics, partisanship, political interest and knowledge, we show that the data are consistent with a moderation explanation. The relatively mixed perspectives the *Pioneer Press* presented delayed the ambivalent voters' making up their mind. In contrast, the relatively one-sided news environment of the *Star Tribune* neither encouraged nor delayed the vote decisions of ambivalent voters.

We argued that campaign effects should be detectable among 'campaign deciders' in a study that systematically varies the heterogeneity of campaign information-flows. In other words, the appropriate test should compare relatively homogeneous and mixed news flows, rather than test the effect of aggregate-level overall campaign tone. Our study design was purposefully utilized to test this variability. Consistent with our theorizing we find that ambivalence moderates the effect of mixed information flows on decision timing. The study lends evidence to the proposition that the effect of mixed information-flows on vote decision timing depends on individual reception-acceptance levels.

TABLE 3 Mediation analysis

	<i>Ambivalence</i>		<i>Late decision 1 (Newspapers only)</i>		<i>Late decision 2 (Ambivalence only)</i>		<i>Late decision 3 (Both)</i>	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Education	.02	.05	.25	.28	.25	.28	.25	.28
Age	-.18***	.05	-.70***	.27	-.52**	.27	-.53**	.28
Income	.05	.04	.08	.18	.03	.18	.03	.18
Male	.05*	.03	.10	.13	.05	.13	.05	.13
Minority	.01	.05	.07	.23	.07	.23	.05	.23
Political interest	-.14***	.05	-.52**	.27	-.40*	.27	-.38*	.28
Political knowledge	-.02	.03	.03	.16	.04	.16	.06	.16
PID strength	-.16***	.03	-.95***	.18	-.82***	.18	-.80***	.18
TV local news	.03	.04	.23	.21	.18	.21	.20	.21
Follow campaign Newspaper	.20***	.05	.35*	.27	.15	.27	.14	.27
Mixed (Pioneer Press)	-.04	.03	.04	.17	—	—	.08	.17
One-sided (Star Tribune)	.00	.03	-.12	.17	—	—	-.13	.17
Ambivalence	—	—	—	—	1.05***	.28	1.06***	.28
$\tau_1$ / OLS Constant	.41***	.06	-.34	.30	.09	.32	.09	.32
$\tau_2$	—	—	.71	.30	1.16	.32	1.16	.32
$R^2$ / Log Likelihood	25%		-342.99		-336.39		-335.94	

Note: Column headers are dependent variables. Ambivalence column entries are OLS coefficients. Late decision columns entries are ordered probit coefficients; higher values note late decision.

Data: Minnesota 2000, Twin Cities metro exit poll (N = 340).

\*\*\* $p \leq .01$ ; \*\* $p \leq .05$ ; \* $p \leq .1$  for one-tailed tests.

Our study design offered a concrete situation where we had clear evidence about the information environment and relatively strong measures of opinion and exposure (e.g., using an exit poll, right after individuals cast their votes). We encourage future work to test our findings in alternative settings with distinct designs such as employing panel data (Chaffee & Rimal, 1996). Another important extension is to include measures of political discussion in individuals' social networks. We did not include such measures, due largely to the inherent time-constraints of exit polls, but work on discussion in social networks suggests that they can contribute to vote decisions in complex ways (e.g., Mutz, 2002; Nir, 2005; De Vreese & Boomgaarden, 2006).

The landscape of mediated politics has changed considerably in the past decades. Citizens choose from hundreds of television channels, newspapers, and

Web pages. Media outlets, in turn, have become more niche-oriented, gearing information for their audiences who thus are less likely to be exposed to different opinions (Webster & Lichty, 1991; Sunstein, 2001; Druckman, 2004a; Hamilton, 2004; Prior, 2005). In our concluding remarks, we encourage our readers to speculate on several processes that are associated with changes in the news information environment: a decline in engagement (fewer people overall vote), a polarization of the most engaged (partisans on opposites of the political spectrum), and a widening gap in news preferences between political sophisticates and non-sophisticates.

What questions does our study underscore? On the one hand, fewer and fewer people decide early for whom they will vote, so there is ample room to study these campaign effects. On the other, turnout overall dwindled, leaving a relatively smaller and polarized electorate, in which those who weigh in and ultimately affect electoral outcomes are the most partisan, the least open to persuasion, and therefore the *least* affected by campaigns. In other words, it is not clear whether in the coming decades campaign information would weigh heavier or lighter in citizens' preference formation, decision-time, and ultimately their vote choice. Moreover, it is unclear whether changes in electoral outcomes could be systematically attributed to changes in coverage of a political environment that for many US citizens is increasingly 'out of reach, out of sight, out of mind' (Lippmann, 1922, p. 18).

A broader normative dilemma may be whether journalists 'disservice' democracy with a mixed, evenhanded campaign coverage that inadvertently delays voter preference formation and depresses turnout. We think not. While mixed coverage may delay decisions, it is far preferable to a biased partisan press that takes a single side on matters public. Moreover, we need to review more critically the assumption that *early* decisions are necessarily *better* and more informed decisions. Late deciders base their judgment on incoming information rather than a-priori preference; ambivalence may be taken as evidence of critical and responsive citizenry representatives should heed (Hochschild, 1993). For better or for worse, mass-mediated news is still the most effective channel to convey collective opinions and experiences to a large-scale and heterogeneous mass polity (Mutz, 1998, pp. 267–295). For most citizens of modern polities, attentiveness to news is the only means of monitoring officials' actions and demanding their public accountability.

## APPENDIX: CONTENT ANALYSIS OF NEWS COVERAGE

To assess the mass media information environment, we assembled a team of content analysts who analyzed the two major local newspapers—*Star Tribune* and the *St. Paul Pioneer Press*—and the four local evening news programs every day from just after the September 12th primary through Election Day

on November 7th 2000 (see Dalton, Beck, & Huckfeldt, 1998; Kahn & Kenney, 2002). This resulted in a total of 112 newspapers (56 days for each of the two papers) and 216 broadcasts (54 broadcasts for each of the four stations). Coders identified every newspaper article on the Senate campaign, or, in the case of television news, every story on the Senate campaign (see Kahn, 1991). The coders were trained and monitored closely. We assessed the reliability of the coding by having a coder analyze a random sample of 35 percent of the newspaper articles and 25 percent of the broadcasts.

The analysis captures the entire mass media environment that provided regular coverage of the election in the Twin Cities area. Results indicate that most of the coverage came from the newspapers and not the television news (see Table A1). For example, newspapers included Senate campaign coverage on 88 percent of the days coded (the average paper included nearly two articles a day), while television news did so only 34 percent of the time (not even a half story a day on average, or an average of 29.5 seconds of coverage of all newscasts;  $z = 9.29$ ;  $p \leq .01$  for a two-tailed differences of proportions test). Due to sparse television coverage, in what follows, we focus on newspaper coverage.

To assess the extent to which each newspaper offered conflicting content about the candidates, we concentrate on the papers' discussions of candidate features, including their image traits (e.g., leadership, knowledge, integrity, and empathy), personal and professional backgrounds, ideology, future plans, and other related features. We coded each paragraph for whether it dealt with one or more of these characteristics (for each candidate), and whether the portrayal of the candidate was negative, neutral, or positive (or uncodable/mix). We recorded

TABLE A1 Amount of campaign coverage by local news outlets

	Newspapers	TV News
Number of outlets coded	2	4
Days coded (Sept 12–Nov 7, 2000)	56	54
Total number of Senate campaign articles or stories (merging outlets)	213	90
Average total number of Senate campaign articles or stories (for an outlet)	106.50 <sup>a</sup> (21.92)	22.50 (5.45)
Average number of Senate campaign articles or stories on a given day (for an outlet)	1.90 (.39)	.42 (.10)
Average number of days with <i>no</i> Senate campaign coverage (for an outlet)	7.00 (2.83)	35.50 (3.57)
Average number of lead Senate campaign articles or stories (for an outlet; for all days coded)	8.50 (2.12)	3.75 (2.50)
Average number of paragraphs or seconds per Senate campaign article or story (for an outlet)	17.68 (4.39)	70.94 (11.79)

<sup>a</sup>Entries of the last five rows are means, with standard deviations noted in parentheses.



whether each paragraph dealt with any of 28 issues (e.g., defense, social security), and/or 13 strategic elements (e.g., poll results, ads, fundraising), noting, in each case, the candidate focus. Our decision to capture the media environment by examining candidate characteristics builds on a large research agenda that emphasizes the crucial role of these features in voters' calculus. McGraw (2003, p. 398) states, 'traits are the central components of ordinary and political impressions . . . Trait inferences dominate impressions' (also see Funk, 1999; Rahn, Aldrich, Borgida, & Sullivan, 1990).

We took the set of image mentions, which were 697 for the *Star Tribune* and 457 for the *Pioneer Press*. We then selected out the subset that dealt exclusively with either Grams or Dayton and could be coded as positive, negative, or neutral. We report, over the entire set of image characteristics for a given candidate, the percentage of those that were negative, neutral, or positive. Thus our unit of analysis is the number of image mentions for each candidate that could be coded for tone.

Given the interval level of the data, using a correction for chance agreement such as Cohen's Kappa was not applicable. To evaluate the reliability of such an interval level variable, Riffe, Lacy, and Fico (1998, p. 133) recommend using Pearson's product-moment correlation, and suggest that correlations that exceed .80 indicate sufficient reliability. We also calculated the average differences between the coders in their counts, as an indicator of agreement. We find correlations ranging from .82 to .98 and differences ranging from .02 to .94 (that is, the maximum difference in count between coders was less than 1.0). The range of mentions by paragraph across articles is 0 to 31.

Specific correlations for each measure are as follows (the first number is the correlation, the second is the average difference, number in parentheses is the standard deviation of the average difference). All correlations are significant at the .01 level: *Star Tribune* ( $n = 43$ ) Grams positive: .95, .02 (.15); *Star Tribune* Grams neutral: .84, .07 (.03); *Star Tribune* Grams negative: .86, .28 (.70); *Star Tribune* Dayton positive: .82, .09 (.37); *Star Tribune* Dayton neutral: .86, .23 (.75); *Star Tribune* Dayton negative: .97, .16 (.43); *Pioneer Press* ( $n = 31$ ) Grams positive: .91, .13 (.56); *Pioneer Press* Grams neutral: .95, .23 (.67); *Pioneer Press* Grams negative: .97, .16 (.45); *Pioneer Press* Dayton positive: .98, .32 (1.05); *Pioneer Press* Dayton neutral: .93, .94 (4.67); and *Pioneer Press* Dayton negative: .91, .32 (.83). Overall, the reliability statistics range from .84 to 1.0, with an average near .97, thereby exceeding the .80 standard in all cases (Riffe et al., 1998, pp. 131–133; Neuendorf, 2002, p. 143).

## REFERENCES

- American Association for Public Opinion Research. (2004). *Standard definitions: Final dispositions of case codes and outcome rates for surveys* (3rd ed.). Lenexa, KS: AAPOR.

- American National Election Studies. (2007). *Time of presidential election vote decision 1948–2004*. Retrieved February 25, 2007, from [http://www.electionstudies.org/nsguide/topable/tab9a\\_3.htm](http://www.electionstudies.org/nsguide/topable/tab9a_3.htm).
- Bartels, L. M. (1993). Messages received: The political impact of media exposure. *American Political Science Review*, 87, 267–285.
- Basinger, S. J., & Lavine, H. (2005). Ambivalence, information, and electoral choice. *American Political Science Review*, 99, 169–184.
- Berelson, B. B., Lazarsfeld, P. F., & McPhee, W. N. (1968). *Voting: A study of opinion formation in a presidential campaign* (Midway reprint ed.). Chicago: University of Chicago Press. (First ed. 1954, University of Chicago).
- Bowen, L. (1994). Time of voting decision and use of political advertising: The Slade Gorton-Brock Adams senatorial campaign. *Journalism Quarterly*, 71, 665–675.
- Box-Steffensmeier, J. M., & Kimball, D. (1999, April). *The timing of voting decisions in presidential campaigns*. Paper presented at the annual meeting of the Midwest Political Science Association, Chicago.
- Chaffee, S. H., & Choe, S. Y. (1980). Time of decision and media use during the Ford-Carter campaign. *Public Opinion Quarterly*, 44, 53–69.
- Chaffee, S. H., & Rimal, R. N. (1996). Time of vote decision and openness to persuasion. In D. C. Mutz, P. M. Sniderman & R. A. Brody (Eds.), *Political persuasion and attitude change* (pp. 267–291). Ann Arbor: University of Michigan Press.
- Chong, D., & Druckman, J. N. (2007a). A theory of framing and opinion formation in competitive elite environments. *Journal of Communication*, 57, 99–118.
- Chong, D., & Druckman, J.N. (2007b). Framing theory. *Annual Review of Political Science*, 10, 103–126.
- Converse, P. E. (1962). Information flow and the stability of partisan attitudes. *Public Opinion Quarterly*, 26, 578–599.
- Dalton, R. J., Beck, P.A., & Huckfeldt, R. (1998). Partisan cues and the media. *American Political Science Review*, 92, 111–126.
- De Vreese, C. H., & Boomgaarden, H. G. (2006). Media message flows and interpersonal communication: The conditional nature of effects on public opinion. *Communication Research*, 33, 19–37.
- Druckman, J. N. (2004a). Political preference formation: Competition, deliberation, and the (ir)relevance of framing effects. *American Political Science Review*, 98, 671–686.
- Druckman, J. N. (2004b). Priming the vote: Campaign effects in a US Senate election. *Political Psychology*, 25, 577–594.
- Druckman, J. N., & Lupia, A. (2000). Preference formation. *Annual Review of Political Science*, 3, 1–24.
- Druckman, J. N., & Nelson, K. R. (2003). Framing deliberation: How citizens' conversations limit elite influence. *American Journal of Political Science*, 47, 729–745.
- Druckman, J. N., & Parkin, M. (2005). The impact of media bias: How editorial slant affects voters. *The Journal of Politics*, 67, 1030–1049.
- Fournier, P., Nadeau, R., Blais, A., Gidengil, E., & Nevitte, N. (2001). Validation of time of voting decision recall. *Public Opinion Quarterly*, 65, 95–107.

- Fournier, P., Nadeau, R., Blais, A., Gidengil, E., & Nevitte, N. (2004). Time-of-voting decision and susceptibility to campaign effects. *Electoral Studies*, 23, 661–681.
- Funk, C. L. (1999). Bringing the candidate into models of candidate evaluation. *Journal of Politics*, 61, 700–720.
- Gopoian, D., & Hadjiharalambous, S. (1994). Late deciding voters in presidential elections. *Political Behavior*, 16, 55–78.
- Hamilton, J. T. (2004). *All the news that's fit to sell*. Princeton University Press, Princeton, N.J.
- Hardy, B. W. (2005, May). *Political discussion and democratic citizenship: Comparing heterogeneous and homogeneous political discussion networks as promoters of active citizenry*. Paper presented at the annual convention of the International Communication Association, New York.
- Hochschild, J. L. (1993). Disjunction and ambivalence in citizens' political outlooks. In G. E. Marcus & R. L. Hanson (Eds.), *Reconsidering the democratic public* (pp. 187–210). University Park: Pennsylvania State University Press.
- Huckfeldt, R., Johnson, P. E., & Sprague, J. (2004). *Political disagreement: The survival of diverse opinions within communication networks*. New York: Cambridge.
- Huckfeldt, R., Mendez, J. M., & Osborn, T. (2004). Disagreement, ambivalence, and engagement: The political consequences of heterogeneous networks. *Political Psychology*, 25, 65–95.
- Kahn, K. F. (1991). Senate Elections in the news. *Legislative Studies Quarterly*, 16, 349–374.
- Kahn, K. F., & Kenney, P. J. (2002). The slant of the news. *American Political Science Review*, 96, 381–394.
- Kinder, D. R. (2007). Curmudgeonly advice. *Journal of Communication*, 57, 155–162.
- Knoke, D. (1990). *Political networks: The structural perspective*. New York: Cambridge University Press.
- Lavine, H. (2001). The electoral consequences of ambivalence toward presidential candidates. *American Journal of Political Science*, 45, 915–929.
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1968). *The people's choice* (3rd ed.). New York: Columbia University Press (First ed. 1944, Duell, Sloan, and Pearce).
- Lippmann, W. (1922). *Public opinion*. New York: Harcourt Brace Jovanovich.
- McGraw, K. M. (2003). Political impressions. In D. O. Sears, L. Huddy & R. Jarvis (Eds.), *Oxford handbook of political psychology*. New York: Oxford University Press.
- McGuire, J. W. (1969). Attitude and attitude change. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (Vol. 3, pp. 136–314). Reading: Addison-Wesley.
- McLeod, J. M., Scheufele, D. A., Moy, P., Horowitz, E., Holbert, R. L., Zhang, W., Zubric, S., & Zubric, J. (1999). Understanding deliberation: The effects of discussion networks on participation in a public forum. *Communication Research*, 26, 743–774.
- Mutz, D. C. (1998). *Impersonal influence*. New York: Cambridge University Press.
- Mutz, D. C. (2002). The consequences of cross-cutting networks for political participation. *American Journal of Political Science*, 46, 838–855.
- Mutz, D. C., & Martin, P. S. (2001). Facilitating communication across lines of political difference: The role of mass media. *American Political Science Review*, 95, 97–114.

- Nir, L. (2005). Ambivalent social networks and their consequences for participation. *International Journal of Public Opinion Research*, 17, 422-442.
- Neuendorf, K. A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage.
- Peter, J. (2004). Our long 'return to the concept of powerful mass media': A cross-national comparative investigation of the effects of consonant media coverage. *International Journal of Public Opinion Research*, 16, 144-168.
- Plumb, E. (1986). Validation of voter recall: Time of electoral decision making. *Political Behavior*, 8, 302-312.
- Price, V., Nir, L., & Cappella, J. N. (2005). Framing public discussion of gay civil unions. *Public Opinion Quarterly*, 69, 179-212.
- Price, V., & Zaller, J. (1993). Who gets the news? Alternative measures of news reception and their implications for research. *Public Opinion Quarterly*, 57, 133-164.
- Prior, M. (2005). News vs. entertainment: How increasing media choice widens gaps in political knowledge and turnout. *American Journal of Political Science*, 49, 577-592.
- Rahn, W. M., Aldrich, J. H., Borgida, E., & Sullivan, J. L. (1990). A social-cognitive model of candidate appraisal. In J. A. Ferejohn & J. H. Kuklinski (Eds.), *Information and democratic processes* (pp. 187-206). Urbana: University of Illinois Press.
- Reuters. (17 April 2007). *Poll: Nearly half of French voters undecided*. Retrieved April 20, 2007 from <http://www.cnn.com/2007/WORLD/europe/04/09/france.election.poll.reut/index.html>.
- Riffe, D., Lacy, S., & Fico, F.G. (1998). *Analyzing media messages*. Mahwah, NJ: Erlbaum.
- Saris, W. E., & Sniderman, P. M. (2004). Introduction. In W. E. Saris & P. M. Sniderman (Eds.) *Studies in public opinion* (pp. 1-13). Princeton, NJ: Princeton University Press.
- Scheufele, D. A., Nisbet, M. C., & Brossard, D. (2003). Pathways to political participation? Religion, communication contexts, and mass media. *International Journal of Public Opinion Research*, 15, 300-323.
- Scheufele, D. A., Nisbet, M. C., Brossard, D., & Nisbet, E. C. (2004). Social structure and citizenship: Examining the impacts of social setting, network heterogeneity, and informational variables on participation. *Political Communication*, 21, 315-338.
- Schmitt-Beck, R., & Faas, T. (2006). The campaign and its dynamics at the 2005 German general election. *German Politics*, 15, 393-419.
- Sheafer, T. (2005). Detecting campaign effects in imbalanced campaigns: The Likud's intraparty referendum over Sharon's disengagement plan. *Harvard International Journal of Press/Politics*, 10, 85-93.
- Sniderman, P. M., & Theriault, S. M. (2004). The structure of political argument and the logic of issue framing. In W. E. Saris & P. M. Sniderman (Eds.) *Studies in public opinion* (pp. 133-165). Princeton, NJ: Princeton University Press.
- Sunstein, C. (2001). *Republic.com*. Princeton, NJ: Princeton University Press.
- Thompson, M. M., Zanna, M. P., & Griffin, D. W. (1995). Let's not be indifferent about (attitudinal) ambivalence. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 361-386). Mahwah, NJ: Erlbaum.

- Tomz, M., Wittenberg, J., & King, G. (1999). *Clarify: Software for interpreting and presenting statistical results*. Version 1.2.1. Cambridge: Harvard University; accessed June 1, 2005 at <http://gking.harvard.edu/>.
- Webster, J. G., & Lichty, L. W. (1991). *Ratings analysis: Theory and practice*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Whitney, D. C., & Goldman, S. B. (1985). Media use and time of vote decision: A study of the 1980 presidential election. *Communication Research*, 12, 511–529.
- Zaller, J. (1992). *The nature and origins of mass opinion*. New York: Cambridge University Press.
- Zaller, J. (1996). The myth of massive media impact revived: New support for a discredited idea. In D. C. Mutz, P. M. Sniderman & R. A. Brody (Eds.), *Political persuasion and attitude change* (pp. 17–78). Ann Arbor: University of Michigan Press.
- Zaller, J. (2004). Floating voters in U.S. Presidential elections, 1948–2000. In P. M. Sniderman & W. E. Saris (Eds.), *Studies in public opinion* (pp. 166–212). Princeton, NJ: Princeton University Press.

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