Rationalization and Derivation Processes in Survey Studies of Political Candidate Evaluation

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    In order to assess the determinants of voters' candidate preferences, some analysts have examined responses to open-ended questions that ask citizens what might make them vote for or against a particular candidate. However, psychological theory and research suggest that the success of these reports in predicting voting may be because they reflect rationalizations of preferences rather than the reasons that give rise to them. And indeed, using data from a panel survey conducted during the 1990 elections in Ohio, we found that voters' reports of the reasons for their preferences were principally rationalizations. Rationalization was especially strong among politically involved voters and those with little exposure to the media. Derivation of preferences from likes and dislikes was most pronounced among voters who made up their minds late in the campaign. These findings support the on-line model of voter decision making and suggest that open-ended questions asking voters about their likes and dislikes are not well suited to revealing the real reasons for their preferences.

Introduction

    Political scientists studying mass behavior have maintained a consistent interest in the processes by which citizens evaluate and choose

among candidates for public office. Thanks to survey data collected since the 1950s, analysts have identified a great many considerations that affect these decisions: affiliations with political parties, stands on policy issues, perceptions of candidates' personalities, retrospective assessments of the nation's economy and international status, membership in demographically defined groups, and many more (see, e.g., Kinder and Sears 1985). However, there is little agreement among scholars about just how much impact each of these various considerations has had on voters' decisions over the years. Although the prospective models emphasize issues (see, e.g., Aldrich 1977), this approach has been viewed as requiring a level of political sophistication and information-processing capacity that most citizens do not possess (Herstein 1981). On the other hand, retrospective models require less herculean assumptions about citizens' capacities, necessitating only a simple, short-hand summary of an incumbent administration's performance (Key 1966). Models that emphasize party identification view this group affiliation as a heuristic that allows citizens to make any sort of political choice with little information and without expending much effort (Campbell et al. 1960). And more recently, newer approaches have emphasized the impact of perceptions of candidate personalities in voters' decisions (Kinder 1986; Rahn et al. 1990). To assess the viability of these theoretical perspectives, one must assess the relative impact of various considerations on voters' choices.

The primary method used to make these assessments in recent years has been linear multiple regression. According to this approach, the impact of any single consideration can be gauged by the size of a regression coefficient attached to it in a single-equation model predicting candidate preferences. Larger coefficients are routinely interpreted in this literature as indicating more impact and therefore greater significance (e.g., Pomper and Schulman 1975; Shanks and Miller 1991).

As popular as these methods have been, they have some significant drawbacks. First, single-equation models require that an analyst ignore the possibility of reciprocal causal relations among variables, and such reciprocal relations seem quite likely to exist among the variables in vote choice models (e.g., Judd, Kenny, and Krosnick 1983). Recognizing this problem, some analysts have used more sophisticated analytic techniques, including structural equation modeling, to take this possibility into account (Markus and Converse 1979; Page and Jones 1979). However, even these models require making assumptions that appear tenuous at best. For example, Page and Jones (1979) assumed that demographic variables directly caused voters' policy preferences but did not directly affect voters' partisan loyalties. Furthermore, because findings are highly contingent on the particulars of model specification, different investigators have in some cases reached dramatically different conclusions based

upon analyses of the same data (cf. Markus and Converse 1979 and Page and Jones 1979). Thus, it is difficult to have much confidence in the validity of any of these conclusions.

Some researchers have promoted an alternative way to assess the importance of vote choice considerations: asking survey respondents to articulate aspects of a particular candidate that might make them want to vote for or against him or her. Analysts utilizing these descriptions have assumed that respondents are aware of and able to describe their likes and dislikes accurately and that these attributes reflect the reasons for people's candidate preferences (e.g., Miller and Wattenberg 1985). That is, people are presumed to construct their candidate preferences on the basis of these likes and dislikes, a process we will call *derivation*. Taking this approach, analysts have tracked changes in the importance of various considerations across elections (Kagay and Caldeira 1975; Kessel 1992; Miller and Wattenberg 1985; Popkin et al. 1976) and across various subgroups of voters (Miller, Wattenberg, and Malanchuk 1986). An apparent advantage of this method is its ability to identify the determinants of a single individual's vote choice, in contrast to multiple regression, which can only make general statements about groups of people.

Some analysts, most notably Stanley Kelley (1983), have taken this method a step further and attempted to determine the *process* by which voters combine their candidate likes and dislikes into overall choices. Kelley (1983; Kelley and Mirer 1974) argued that voters simply add up the number of likes and dislikes they have about each candidate and support the candidate with the most favorable net score, a process he called the Rule. In cases of a tie, he suggested, voters turn to other information, such as party identification, to help them make their decisions. The success of this method at predicting voters' choices has been viewed as attesting both to the validity of Kelley's model and to the value of the open-ended likes-dislikes questions for assessing voters' reasons for preferring particular candidates.

However, recent developments in cognitive social psychology call into question the assumptions underlying the uses of these open-ended questions. For example, a great number of studies have now shown that people are unaware of many of the most important causes of their preferences (see, e.g., Nisbett and Wilson 1977; for a more recent review, see Krosnick and Fabrigar 1995). Furthermore, when asked to explain their preferences, people are biased toward mentioning reasons that sound rational and systematic and that emphasize the object being evaluated, while overlooking more emotional reasons and factors other than the object's qualities (Wilson et al. 1989). Thus, people *rationalize* their preexisting preferences. All this raises questions about voters' abilities to

accurately articulate the real reasons why they like and dislike candidates (see also Smith 1989 for a similar argument with respect to the NES open-ended questions).

Also calling into question the validity of these reported reasons is evidence showing that social evaluations can be formed in one of two very different ways: memory-based or on-line (Hastie and Park 1986). Both of these methods involve making decisions based upon information stored in memory, but they differ in terms of the amount of time between information acquisition and decision making. When voters using the memory-based method enter the voting booth on election day, they re-view the information they have available in memory about each candidate and vote for the one for whom the recalled information has the more favorable implications. Thus, in a memory-based decision process, the recalled information is the determinant of choice, just as Kelley proposed in his use of the NES open-ended questions. Clearly, when voters employ this method, it is reasonable to assume that their answers to open-ended likes-dislikes questions will reveal the bits of raw data from which their overall evaluations will be derived.

In contrast, when voters employ the on-line method, they store an overall evaluation of each candidate in memory early in a campaign and continually update that evaluation as they acquire each new piece of information about that individual. However, voters do not necessarily store all of those specific pieces of information in memory, and they are likely to forget some of those they do store as time passes (Gant and Davis 1984). Therefore, they are likely to remember only a subset of this knowledge on election day, and that subset may well be unrepresentative of the larger pool of information on which their overall candidate evalua-tions were based. Thus, to the extent that voters employ this method, one would be skeptical about the ability of open-ended likes-dislikes questions to identify the real reasons for people's choices (Lodge, McGraw, and Stroh 1989).

Furthermore, when a voter has used the on-line method, there is *no necessary* relationship between the evaluative implications of recalled information about a candidate and overall evaluations of him or her. In any given case, one could observe a positive relation, a negative relation, or no relation at all. Which of these one observes in any given case is the result of processes *other* than the impact of recalled information on overall evaluation.

Advocates of the likes-dislikes questions are likely to have faith in their method partly because their analyses typically have revealed strong correspondence between recalled likes-dislikes about candidates and vote decisions. Kelley, for example, defends the predictive success of his

model by arguing that "the great majority of voters act *as if* they were using the Rule, and the accuracy with which the division of the vote is predicted shows that the Rule's predictions of individual voters are nearly unbiased, with errors canceling out" (Kelley 1983:15). However, this correspondence may instead reveal processes other than derivation, and a particularly likely one is post hoc rationalization. According to many theories of cognitive consistency in social psychology (Festinger 1957; Heider 1958; Osgood, Suci, and Tannenbaum 1957), inconsistencies among beliefs and attitudes are noxious to people, and they are inclined to eliminate such inconsistencies by changing, adding, or deleting the beliefs or attitudes responsible for the inconsistency (see, e.g., Abelson and Rosenberg 1958). Therefore, people's overall candidate evaluations may bias their recollection and/or generation of beliefs about a candidate as they answer the likes-dislikes questions (Roberts 1985). As a result, reports of likes and dislikes may correspond to overall evaluations because the latter shape the former (see Hastie and Park 1986).

Our mission in this paper is to assess more precisely the extent to which voters' answers to the likes-dislikes questions reflect (1) *derivation* of overall evaluations from beliefs about candidate attributes, and/or (2) *rationalization* of preexisting evaluations. To the extent that derivation dominates rationalization, the assumptions of the likes-dislikes supporters will be vindicated. But to the extent that rationalization dominates derivation, the on-line view of voter decision making will be supported, and we should be quite skeptical of using the open-ended questions to reveal the determinants of a particular election outcome.

In addition to assessing overall levels of derivation and rationalization, we set out to identify groups of voters who were more likely and less likely to perform each of these cognitive processes. Specifically, we thought that three factors might regulate the extent to which an individual derives or rationalizes candidate preferences: time of decision, political involvement, and media exposure. We assumed that voters who made up their minds early in a campaign would be more likely to shut off their exposure to new information and rationalize their preferences by reporting beliefs consistent with these preferences (see also Lau 1982). In contrast, voters who made no commitments early would be open to new information throughout the campaign and would be more likely to derive their evaluations from information they could remember near election day.

Recent experimental evidence from laboratory studies suggests that politically involved citizens are more likely to engage in on-line processing of candidate information (McGraw, Lodge, and Stroh 1990; Rahn 1990). As on-line processors, politically involved voters base their candi-

date evaluations on relevant information as it is acquired. Those less involved in politics, however, are not as motivated to engage in on-line processing of information; instead, they are more likely to rely on memory-based processes to reach their candidate judgments. Therefore, we expected that the less involved should show more derivation.

Political involvement might also be related to rationalization. Cognitive dissonance theory argues that the magnitude of dissonance increases as the importance of the attitude object increases (Festinger 1957). By definition, the politically involved care more about politics and thus are more likely to attach importance to their candidate attitudes. Under these conditions, having beliefs about candidates that are not consistent with one's overall evaluations of them would be quite uncomfortable. In contrast, less involved voters would presumably be unperturbed by inconsistency between their candidate preferences and their beliefs about their attributes. Therefore, we expected that more involved voters would be more likely to rationalize their evaluations than the less involved.

A number of recent studies suggest that although political involvement and exposure to political news through the media are positively correlated with one another, these variables may sometimes have distinct and oppositely signed effects on information processing (Krosnick and Brannon 1993; Krosnick and Milburn 1990). We expected that because the news media provide voters with a constant stream of new information about the candidates, heavy media exposure is likely to inhibit the crystallization of candidate attitudes and therefore to reduce the likelihood of rationalization. In contrast, voters with little media exposure will not acquire information that contradicts their beliefs and therefore will find it easier to rationalize their candidate judgments. Thus, we anticipated that media exposure and political involvement might have opposite effects on rationalization.

To compare rationalization and derivation processes, we must assess the impact of likes and dislikes on overall evaluations, and we must assess the impact of overall evaluations on likes and dislikes. Certainly the most compelling way to do so involves the analysis of panel data collected from a sample of respondents at a number of points during an election campaign (see Kessler and Greenberg 1981). Derivation is estimated by the impact of likes-dislikes measured at one time on overall evaluations measured at a later time, controlling for overall evaluations measured at the earlier time. Similarly, rationalization is estimated by the impact of overall evaluations measured at one time on likes-dislikes measured at a later time, controlling for likes-dislikes measured at the earlier time. Thus, one must measure likes-dislikes and overall evaluations at least two times during a campaign among the same group of individuals.

The National Election Studies thus far have asked the open-ended likes-dislikes questions only once during an election campaign, so it has not been possible to perform such analyses using these data. However, a recent panel survey conducted by the Ohio State University's Polimetrics laboratory collected just such data. During the 1990 campaign for governor of Ohio, a representative sample of Ohio voters was interviewed three times about the two competing candidates. Likes-dislikes questions and overall evaluation questions were asked during the first and second waves, thus allowing us to estimate the amount of derivation and rationalization that took place during the campaign.

The 1990 gubernatorial campaign featured two well-known and well-financed Ohio politicians, George Voinovich, a Republican, and Anthony Celebrezze, a Democrat. Voinovich, a former Cleveland mayor, had mounted an unsuccessful effort to unseat U.S. Senator Howard Metzenbaum in 1988. Celebrezze was the state's attorney general prior to launching his gubernatorial bid. Following a hard-fought campaign, Voinovich won the election by a comfortable margin. The visibility of this race to the voters of Ohio and the fact that it involved an executive office mean that voters were likely to have been cognitively engaged in the campaign for some time, thereby making the Ohio panel study data well suited to our purposes.

The first wave of interviewing took place two months before the election, and the second wave happened during the last week before election day. Although some campaign advertising occurred before the first wave, voters were exposed to extensive advertising by the two campaigns and heavy media coverage of the race by Ohio newspapers and TV stations between the first two waves of interviewing. Thus, in using these two waves of data, we are able to capture most of the period of campaign learning.

Data

Sample

The sample for the 1990 Polimetrics telephone survey was generated using the Mitofsky-Waksberg modification of simple random digit dialing. The survey involved three waves of interviewing. For the first wave, 1,277 respondents were interviewed; the overall response rate was 57%. For the second wave, approximately half ($n = 650$) of the wave 1 respondents were randomly selected to be recontacted. A total of 492 respondents of the selected subsample were interviewed, yielding a response rate of 76%. Of these individuals, 449 (or 91%) were interviewed again

after the election. In postelection interviews, 270 respondents reported that they voted in the gubernatorial race, and it is upon these individuals that we shall focus our analyses. As can be seen in Table 1, those individuals who participated in all three waves differ little from the original sample. Therefore, we do not view panel attrition as a threat to our analysis.

Measures

Comparative candidate evaluation. At the beginning of the wave 1 and 2 interviews, respondents were asked to report their evaluations of Voinovich and Celebrezze on 101-point feeling thermometers. For each wave, we constructed a comparative candidate evaluation measure by subtracting Voinovich's rating from Celebrezze's. The possible range of this variable (−100 to +100) was recoded to lie between zero and one.

Open-ended likes-dislikes. Somewhat later in the wave 1 and 2 interviews, respondents were asked open-ended questions about the attributes of the two gubernatorial candidates.[1] The wording of these questions was identical to the way in which voters' reasons for voting for and against presidential candidates are ascertained by the NES: *Is there anything in particular about Anthony Celebrezze (George Voinovich) that might make you want to vote for (against) him? What is that? Anything else?* For each respondent, up to four responses were coded for each of the four questions.[2] Using Kelley and Mirer's (1974) procedure, we constructed a comparative net score for each wave. For each candidate, the number of "vote against" reasons was subtracted from the number of "vote for" reasons; positive values indicated more likes than dislikes and vice versa

[1]The fact that the feeling thermometer questions were asked before the likes-dislikes could artificially build in rationalization effects within an interview. That is, respondents' answers to the likes-dislikes questions may be intended partly to rationalize the feeling thermometer ratings provided earlier. Experimental studies have found that the relationship between memory and judgment is not affected by the order in which memory and judgment questions are asked (see Lichtenstein and Srull 1987; Lodge, McGraw, and Stroh 1989, n. 2). Therefore, using a different question order would probably not have minimized within-interview rationalization. Moreover, we focus below on rationalization *between* interviews 1 and 2 and incorporate within-interview rationalization in our models.

[2]Of the people asked the open-ended questions in wave 1, 67% mentioned one or more considerations for one or both of the candidates. In wave 2, 74% of those asked the open-ended questions provided one or more considerations about one or both of the candidates. These findings are comparable to those obtained from the National Election Studies. For example, Gant and Davis (1984) found in analysis of the 1980 NES that 50% of the respondents mentioned one or more things they liked about Jimmy Carter, and 64% mentioned one or more things they disliked.

Table 1. Respondent Characteristics

	Wave 1 Respondents	Respondents in All Three Waves
Sex:		
Male	42.4%	45.5%
Number of respondents	1,267	421
Race:		
White	89.6%	89.1%
Number of respondents	1,274	421
Income:		
Under $10,000	10.6%	9.4%
$10,000 to $20,000	18.6	18.6
$20,000 to $30,000	21.8	20.9
$30,000 to $40,000	18.8	19.1
$40,000 to $50,000	13.5	12.5
$50,000 to $60,000	7.2	8.9
Over $60,000	9.4	10.6
Number of respondents	1,160	393
Education:		
Less than high school	12.3%	10.9%
High school	38.0	34.2
Some college	26.4	25.9
College graduate	14.0	16.9
Postgraduate	9.5	12.2
Number of respondents	1,267	421
Party identification:		
Strong Democrat	12.8%	14.1%
Weak Democrat	19.1	15.1
Leaning Democrat	11.5	12.9
Independent	14.6	15.1
Leaning Republican	13.0	15.4
Weak Republican	15.9	13.7
Strong Republican	13.0	13.7
Number of respondents	1,257	410

for negative values.[3] Then, Voinovich's net score was subtracted from Celebrezze's to yield the comparative net score. The possible range of this variable (-8 to $+8$) was recoded to lie between zero and one.

[3]One could imagine weighting likes and dislikes differently to allow for the possibility that certain responses (e.g., ones mentioned first) may have more impact on evaluations than others (see, e.g., Lau 1989). However, the far more common practice in using the

Political involvement. To measure psychological involvement in politics, we combined the interviewer's rating of respondents' "level of information about politics and public affairs" with respondents' self-reported interest in following the campaign. We averaged these two variables and then used the median of the resulting index to separate the highly involved (coded 1 on a dummy variable) from the less involved (coded 0).

Media exposure. Respondents reported their frequency of newspaper reading and of local TV news viewing. We averaged these two variables and used the median of the resulting index to separate voters into high (coded 1 on a dummy variable) and low (coded 0) exposure groups.

Time of decision. In wave 3 of the survey, voters were asked when they had made their decisions about which candidate to support in the governor's race. We classified respondents who said they made up their minds "on election day" or a "few days before the election" as late deciders (coded 0 on a dummy variable) and those who made up their minds earlier as early deciders (coded 1).[4]

Results

To estimate the extent of rationalization and derivation in voters' candidate evaluations, we initially conducted longitudinal OLS regressions (see Kessler and Greenberg 1981). Wave 2 measures of comparative candidate evaluation (labeled *evaluation$_2$*) and candidate likes-dislikes (labeled *likes-dislikes$_2$*) were each predicted by both variables at wave 1.

$$evaluation_2 = a + b_1(evaluation_1) + b_2(likes\text{-}dislikes_1) + e. \qquad (1)$$

$$likes\text{-}dislikes_2 = a + b_1(likes\text{-}dislikes_1) + b_2(evaluation_1) + e. \qquad (2)$$

The impact of wave 1 evaluations on likes-dislikes reports at wave 2 measures the degree to which these reports reflect rationalizations of prior candidate attitudes. The impact of open-ended reports at wave 1 on evaluations at wave 2 measures the derivation of candidate preferences from reported likes and dislikes.[5] We estimated these equations for

NES open-ended questions is to treat all considerations equally. Because Kelley (1983) and other advocates rely on equal weighting, we chose to do the same in our analysis.

[4]We also conducted our analyses treating political involvement, time of decision, and media exposure as continuous rather than dichotomous variables. Results generated in this way were slightly weaker than those reported below, but had the same implications.

[5]The use of this particular modeling strategy requires us to assume that the two processes we are modeling have equal causal lag periods, that these lag periods are approximated by the time span of the waves of interviews, and that there is no instantaneous causality between the variables.

self-reported voters who answered the feeling thermometers and likes-dislikes in both waves.

As the top panel in Table 2 shows, we found no significant evidence of derivation ($b = .14$) and plenty of rationalization ($b = .42$).[6] Note also that candidate evaluations were highly stable ($b = .70$), whereas the net affective balance of respondents' likes and dislikes was less so ($b = .28$), suggesting that the affective balance of reported reasons fluctuated considerably more than reported attitudes. This differential stability seems to indicate greater superficiality of the likes and dislikes (see also Smith 1989).

However, our estimation of longitudinal effects is complicated by random and systematic measurement error in the indicators, as well as the well-known problem of autocorrelation that arises when lagged dependent variables are used as regressors (Markus 1979). Therefore, the next step in our analysis was designed to adjust for the impact of random, systematic, and autocorrelated error.

To do so, we estimated the parameters of a structural equation model using LISREL (Jöreskog and Sörbom 1989). Our model specified two latent factors at wave 1, *evaluation*$_1$ (measured by wave 1 thermometer ratings of the two candidates) and *likes-dislikes*$_1$ (measured by the net likes-dislikes scores for both candidates). Two latent factors were specified at wave 2, *evaluation*$_2$ and *likes-dislikes*$_2$, which were measured by the same indicators at the second wave. Thus, each latent factor had two indicators at each wave. We fixed the loadings of the Celebrezze thermometers and likes-dislikes at 1.0, and we fixed the loadings of the Voinovich thermometers and likes-dislikes at -1.0 to create latent factors representing the difference between evaluations of the two candidates. This specification allowed LISREL to estimate the amount of random measurement error in each indicator.

To incorporate correlated measurement error in the model, we included correlations between the errors of the indicators. Two sorts of correlations were included, to address two types of correlated error. First, it seemed conceivable that respondents might be inclined to adjust their likes and dislikes to rationalize the thermometer ratings of the candidates that they had made minutes before during each interview. Therefore, we included correlations between the errors to indicators addressing the same candidate at each wave. That is, the wave 1 Celebrezze thermometer error was allowed to correlate with the wave 1 Celebrezze likes-dislikes error at wave 1. A similar correlation was permitted between the

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[6]We are able to compare directly these two coefficients because they have the same metric.

Table 2. Rationalization and Derivation Processes among Voters

	Dependent Variable	
Predictors	Candidate Evaluation$_2$	Likes-Dislikes$_2$
OLS results:		
Candidate evaluation$_1$	.70*	.42*
	(.08)	(.07)
Likes-dislikes$_1$	.14	.28*
	(.10)	(.09)
R^2	.48	.38
LISREL results:		
Candidate evaluation$_1$	1.10*	.60*
	(.30)	(.22)
Likes-dislikes$_1$	− .13	.24
	(.44)	(.35)
Number of respondents	199	199

Note: Entries are unstandardized regression coefficients. Standard errors are in parentheses.

*$p \leq .01$, two-tailed test.

two wave 1 Voinovich indicators. And the same sort of cross-sectional error correlations were permitted between the wave 2 indicators.

A second likely sort of correlated error results from differential use of the thermometer scale across individuals. A number of studies have now accumulated showing that different respondents interpret the meanings of the thermometer scale points differently, so different people express comparable attitudes in different ranges of the scale (Green 1988; Wilcox, Sigelman, and Cook 1989). This induces an artifactual positive correlation among any thermometer ratings (Boruch and Wolins 1970; Krosnick and Alwin 1988). Thus, the correlation between the Celebrezze and Voinovich thermometers at wave 1 will be distorted toward + 1.0, as will the correlation between those same thermometers at wave 2. And if people's interpretations of the scale points are at least somewhat stable over time, this will induce positive correlations among the errors in the thermometers over time.

With only two waves of data, it is not possible to estimate the amount of such correlated error. Fortunately, however, the thermometers were administered to our respondents during all three waves of the survey, which allowed us to estimate the magnitudes of the correlated error at and between waves 1 and 2. We then used the correlations generated by

this analysis to fix the values of the appropriate error correlations in the two-wave model.

As the figures in the bottom panel of Table 2 show, our conclusions remain unaltered by this approach. The rationalization coefficient is strong and significant ($b = .60$), and the derivation coefficient is neither ($b = -.13$).

Hypothesis tests. Because our hypotheses regarding the moderating influences of time of decision, media exposure, and political involvement necessitate using interaction terms, we could not use LISREL to perform these analyses. Instead, to deal with the problem of autocorrelated error, we created instruments for the lagged endogenous variables using a variety of exogenous variables measured in the first wave.[7] These instruments were substituted for the original variables whenever the wave 1 variables were used as lagged endogenous regressors. The interaction terms were formed by multiplying each dummy variable by the wave 1 likes-dislikes and candidate evaluations variables. When the wave 1 variables appeared as lagged endogenous regressors, the interactions were formed by multiplying the dummy variables by the instruments we created in the first-stage regression. We entered the dummy variables, the interactions, and the main effects into the two regressions simultaneously.

As can be seen in Table 3, our hypotheses regarding time of decision were partly confirmed. As expected, the derivation coefficient for late deciders is sizable ($b = .66$); early deciders, on the other hand, were much less likely to derive their candidate evaluations from reported likes and dislikes ($b = .66 - .39 = .27$).[8] However, both groups show equivalently large rationalization effects. The coefficient for the interaction of time of decision and wave 1 evaluations is indistinguishable from zero.

Our hypotheses about political involvement were also only partially supported. Consistent with our expectations, rationalization was significantly more powerful for the politically involved ($b = .35 + .39 = .74$) than for the less involved ($b = .35$). However, although the coefficient for the involvement and likes-dislikes interaction is in the expected direction, it is not statistically significant. Derivation appears to have been equally strong for both groups of voters.

Our news exposure hypothesis was strongly supported. Voters with

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[7]Specifically, party identification, ideology, respondents' positions on abortion, government spending and services, campaign finance, and business regulation, and race, income, gender, and age were used to create the instruments.

[8]Because we had a priori expectations, we use one-tailed tests of statistical significance.

Table 3. Rationalization and Derivation Processes by Time of Decision, Political Involvement, and Media Exposure

Predictors	Dependent Variable	
	Candidate Evaluation$_2$	Likes-Dislikes$_2$
Candidate evaluation$_1$	.43	.35**
	(.56)	(.30)
Candidate evaluation$_1$ × time of decision	.78*	.03
	(.51)	(.24)
Candidate evaluation$_1$ × political involvement	− .01	.29*
	(.42)	(.20)
Candidate evaluation$_1$ × media exposure	.28	− .25*
	(.40)	(.19)
Likes-dislikes$_1$	.66*	.68
	(.48)	(.77)
Likes-dislikes$_1$ × time decision	− .39**	.45
	(.32)	(.68)
Likes-dislikes$_1$ × political involvement	− .10	− .84*
	(.30)	(.56)
Likes-dislikes$_1$ × media exposure	.07	.45
	(.29)	(.57)
R^2	.55	.48
Number of respondents	137	137

Note: For ease of presentation, the coefficients for the three dummy variables are not shown. None was significant in either equation ($p > .15$).

*$p \leq .10$; **$p \leq .15$, one-tailed test.

heavy media exposure were less likely to rationalize their candidate evaluations ($b = .35 − .25 = .10$) than those with little media exposure ($b = .35$).

Discussion

Perhaps the broadest implications of our findings have to do with the commonly held view that asking voters for the reasons for their choices, as is done in the National Election Studies and in exit polling, reveals the "real" ingredients of those decisions. Several theoretical perspectives in social psychology led us to question that assumption. Our analysis supports the alternative view that for many voters, verbal reports of the things they like and dislike about candidates are not the reasons

underlying their preferences, but rather these reports are rationalizations of prior evaluations of the candidates.[9]

The only group of voters for whom we found significant evidence of derivation were late deciders. This suggests that people who make their decisions near election day are either making memory-based judgments or are using information learned earlier in the campaign to update their later evaluations. Rationalization, on the other hand, is only compatible with an on-line process of candidate evaluation. Therefore, we are inclined to view our evidence of strong rationalization effects as supporting the on-line portrait of voter decision making.

Our findings, therefore, have implications for the ways in which the open-ended questions have been used by other investigators. For example Miller, Wattenberg, and Malanchuk (1986) argue that better educated voters are more likely to mention candidate traits as a basis for supporting or opposing the presidential candidates, and therefore, that these characteristics are more important ingredients of candidate evaluation than they are for voters who are less well educated. Our analysis suggests an alternative interpretation: different types of voters may have different ways of rationalizing their preferences, even though the underlying "importance" of various considerations may be similar. Our analysis suggests that we should be skeptical about using responses to open-ended questions to make comparisons across different groups of voters in the importance of various vote choice ingredients.

An advocate of the open-ended questions might argue that our results are merely an artifact of the timing of the survey interviews. If we had interviewed voters immediately after they had made their decisions, they might have been able to articulate the reasons for their preferences accurately. Because our survey interviews probably did not immediately follow the decisions of most respondents, it is no surprise that our voters appear to have rationalized their judgments.

Certainly this is a plausible argument. But until data are collected in a way that rules out the possibility of rationalization, we are reluctant to give credit to open-ended accounts of likes and dislikes. Furthermore, it is wholly impractical to imagine conducting interviews on a daily basis with voters throughout a campaign until they have finally made up their

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[9]Lau (1982) has reported the only previous analysis of rationalization using the open-ended questions (of which we are aware). Although he argued that early deciders showed more evidence of rationalization in their open-ended responses than late deciders, decision time did not influence the extent of rationalization in our analysis. This discrepancy may be because Lau did not control for the effects of prior candidate attitudes on open-ended responses measured at a later time, nor did he control for the other individual differences that we have shown affect the extent of rationalization in the open-ended responses.

minds. Indeed, to the extent that party identification represents a "standing decision" for some people, we would never be able to capture them at their decision time because they would have arrived at their choice months, even years, before a given election campaign.

Thus, in our view, the use in vote choice models of closed-ended questions such as the issue scales, while not without problems (see Krosnick and Berent 1993), is clearly preferable to the use of open-ended questions as a means of assessing the importance of various kinds of determinants. Well-specified models of vote choice that disaggregate the electorate into theoretically defined groups can overcome some of the limitations of standard vote choice models we discussed earlier (see, e.g., Krosnick 1990; Lau 1989; Rivers 1988; Sniderman, Brody, and Tetlock 1991), whereas we see no easy way to overcome the shortcomings documented here of the open-ended questions.

We do not mean to suggest, however, that we are skeptical about the utility of all open-ended survey questions for studying public opinion and voting. For example, there is evidence that open-ended questions are more sensitive and useful than comparable closed-ended items in assessing the public's beliefs about the most important problem facing the nation (Schuman, Ludwig, and Krosnick 1986). And Zaller and Feldman (1992) appear to have been quite successful in using open-ended questions to identify the ingredients of survey respondents' opinions on policy issues. In light of the large literature on the validity and pitfalls of introspection (see Krosnick and Fabrigar 1995), the key to the success of these items seems to be the purposes to which they are put. Zaller and Feldman (1992) were interested in understanding judgments made at the time of the interview, and open-ended introspection treated as such seems to work well. In contrast, voting researchers have used answers to the likes-dislikes questions to understand vote choices often made long before the questions are asked. In such circumstances, use of these questions is unlikely to be successful.

We also do not mean to suggest that people are incapable of describing all aspects of their decision-making process. For example, we relied partly upon people's reports of when they made a decision about which candidate to support. Because these reports successfully differentiated voters who derived their candidate preferences to greater and lesser degrees in line with theory-based expectations, these reports seem to be at least somewhat valid. Thus, although people may not be able to describe the ingredients of their candidate preferences, they do seem to be able to describe at least one aspect of the process by which these preferences were formed.

Finally, our results regarding political involvement and media expo-

sure contribute to the growing literature calling for investigators to differ-
entiate among dimensions of expertise. A number of previous studies
have shown that dimensions such as knowledge, interest, and exposure
can have unique and even oppositely signed effects on political-
information processing (see, e.g., Krosnick and Milburn 1990; Krosnick
and Brannon 1993). We found the same pattern: involvement increases
rationalization, whereas exposure decreases rationalization. Because
involvement and exposure were positively correlated in our data, failure
to examine their effects simultaneously would have muted any apparent
effect of either one taken alone. We therefore encourage future investiga-
tors to take a similar approach by recognizing the conceptual distinctions
among these dimensions and including as many of them as possible as
simultaneous predictors in multivariate analyses.

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