INFORMATION EFFECTS ON THE DETERMINANTS OF ELECTORAL CHOICE IN PRESIDENTIAL ELECTIONS 1972-1988

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Voters in American elections face a daunting task. They are asked to predict, on the basis of complex, frequently-biased, and sometimes difficult to obtain information, which candidate will produce public policies which will better serve the interests of the voter and those the voter holds dear, taking into account the myriad checks and balances which constrain each elected official, the federal system, and the unintended consequences which generally beset policy. Not surprisingly, there exists considerable variation in the way voters approach this demanding responsibility (Rivers 1988). There is a considerable literature in political science, going back to before the publication of *The American Voter* (Campbell et al. 1960), which suggests that a great many citizens are not up to the task.

Some voters possess significant amounts of electorally-relevant information which was gathered for non-electoral reasons. Some may find it relatively easy to gather information and be motivated to do so. Others are less motivated, face higher costs, or have fewer non-electoral reasons for collecting such information. Because some types of information are more difficult to gather and analyze than others, high information voters choose between candidates on the basis of more (and arguably better) cues than their less well-informed fellow-citizens (Moon 1990).

It is also likely that the availability of cues (and, therefore, the use of those cues) varies from one electoral context to another. Media attention, candidate financial resources, the nature of the responsibilities of the office, the nominating process, and many other factors affect what voters are exposed to before election day. This would apply to races for different offices, as well as to campaigns for the same office held in different years or different jurisdictions.

This paper focuses on differences in information usage in five presidential election contests. In particular, it is expected that voters at different levels of information will choose on the basis of different cues, and that the

relative importance of different cues will wax and wane with the circumstances surrounding each election. In reacting as they do, voters, it will be argued, are responding to the incentives offered them by the electoral system they face. While the possibility remains that some voters will be more likely to choose in a way which constrains candidates to consider their interests than others, and while it seems to be the case that the specific bases for candidate choice vary somewhat across voters, this paper attempts to show that these differences are more a matter of degree than of type and that even "low information" voters may choose in such a way as to influence policy outcomes.

THEORY

Let us begin with the assumption that all voters wish to choose the candidate who will most nearly serve the voter's interests.[1] It is not necessary to restrict our conception of a voter's interests to narrow or economic self-interest (although those things undoubtedly play a significant role). Voters may quite reasonably take into account the interests of others they care about and the collective interest (as they conceive it) of the nation as a whole. We might think of the voter's conception of these interests as a set of preferences over outcomes (or tastes), or potential future distributions of costs and benefits. Thus, a voter may not only care about things such as how government policy affects his or her pocketbook, but whether or not abortions can be legally obtained and this nation's relationships with foreign countries, as well, even when the latter two don't seem to have a direct impact on the voter's personal well-being.

The problem voters face is in determining which of the available candidates best serves those interests. The first source of uncertainty is the difficulty of predicting what a given candidate will do after the election. Voters are forced to rely on probabilistic predictions (guesses) about the prospective behavior of candidates if elected[2]. The second source of uncertainty is the difficulty of knowing what should be done by government to maximize the satisfaction of a voter's preferences over outcomes. The effects, particularly on a given voter, of government policies are difficult to predict with precision.

Information has the effect of reducing uncertainty in this context. Relevant information is anything which would allow a voter to make linkages between the voter's preferences over outcomes, on the one hand, and the candidate choices available, on the other. This would certainly include data regarding the direct relationships between policy choices and outcomes or between candidates and policy choices, but would also include

anything upon which inferences about the connections between candidates and outcomes might be based, such as clues about candidates' preferences over outcomes, like regional or ethnic background and appeals made (explicitly or symbolically) to values the voter may (or may not) share. Inferences might also be based upon knowledge of the past behavior of candidates, especially with regard to outcomes which arose while an incumbent was in office, as well as on the support which others (whose interests, or tastes, are known to the voter) give to the candidate. Thus, a voter with a high level of information about candidates, parties, issues, recent events, and patterns of support will have a high probability of choosing the "correct" candidate (Palfrey and Poole 1987).

The value of choosing correctly is limited by the collective nature of many of the benefits potentially derived from voting (Riker and Ordeshook 1968). Nevertheless, for at least some voters, there will be a positive value placed on information gathered for electoral purposes for the same reasons that people choose to vote in the first place (Moon 1992). Some citizens feel obligated to make "good" choices between the candidates, so they gather information until they feel "sure" of their choice, or until the costs of doing so exceed their sense of obligation. At the same time, some information will be available without paying additional costs (Dahl 1961; Patterson and McClure 1976; Gant and Luttbeg 1985; McKelvey and Ordeshook 1986). The value of electoral information and the availability of "free" information will vary across individuals. The unit costs associated with information will vary across individuals depending on the availability of subsidized information and opportunity costs (Fiske, Kinder, and Larter 1983; Moore 1987). Finally, even "motivated" voters will cease to gather information once they have satisfied their sense of responsibility to distinguish accurately between the candidates (Hinckley 1981), so that in some contexts (e.g., an election in which the voter highly approves of the incumbent) little new information is sought out. Different voters approach the moment of electoral choice armed with varying amounts of information, and thus may rely on different decision criteria.

Just as significantly, not all kinds of electorally-relevant information are equally easy to obtain and use. Information about the policy positions of candidates, for example, requires more effort to obtain and analyze than, say, the partisan affiliation of a candidate for a partisan identifier. The result is that some cues to vote choice (issue positions taken, retrospective evaluations, ideological arguments and labels, endorsements, party label, candidate appearance and personal characteristics, etc.) are more likely to be used by sophisticated, high-information voters, and less likely to be used

by voters further down the information continuum.[3] From the perspective of the individual voter this is not only rational and efficient (Gant and Davis 1984), but produces consistent approximations[4] of the preferences over candidates that would have been generated if all available information had been acquired (McKelvey and Ordeshook 1986), as well. These "consistent approximations" mean that even voters who choose with a fairly high degree of "error" still cannot be safely ignored by candidates, since the voters' behavior is not random, but linked in some roughly systematic way to the interests voters wish to see served.

In earlier work focusing on the 1976 presidential election (Moon 1990), it was found that high information voters used all the voting cues tested for (including candidate issue positions, retrospective evaluations of incumbent performance, assessments of the candidates' personal characteristics, ties between candidates and groups the voter felt affiliated with, and partisan identification), except for ideological identification. Medium information voters failed to rely significantly on candidate issue positions or ideological labels as a cue to vote choice but did appear to use the others. Low information voters paid little attention to issues, ideology or group affiliations, relying mainly on incumbent performance, the personal characteristics of the candidates, and partisan identification.

This pattern of findings lent support to my characterization of the choice decision, but several interesting questions remained. First, why was ideological identification not relied upon by voters at any level of information in 1976? Second, and more generally, does the same pattern across information levels hold across elections? Do the differences between voters at different levels of information vary depending on the electoral circumstance?

It seems reasonable to suppose that changes in the circumstances of campaigns would affect the use of information by individual voters. We are quite sensitive to these differences when we study elections of different types. We expect voters to rely on different cues in congressional elections than in presidential elections. We would expect the impact of partisanship to be muted (at least) in non-partisan local races. Generally, the availability and usefulness of cues will vary across types of elections.

What is true across different types of elections may also be true across different elections of the same type. It is quite possible, for example, that voters ignored ideology in 1976 because the candidates either differed little ideologically or de-emphasized the differences that existed. In an election in which the perceived ideological distance between the candidates was greater, ideological labels probably would matter more. We would expect,

therefore, some variation in the way cues are used by voters across different election years.

Two major sources of variation can be identified for presidential election campaigns. First, the candidates vary from campaign to campaign. The kinds of signals sent and the methods used to communicate with voters vary from candidate to candidate. Second, the social context may change from election year to election year. The effectiveness of the political parties at reaching and organizing potential supporters, the effectiveness of the mass media in covering the campaign, and the economic well-being of the country are all actors which might influence the kinds of information which reach the voters.

There are suggestions that these kinds of differences across elections influence the way voters respond scattered through the voting literature. A good example of this is the notion that the degree to which voters appear to be sophisticated (that is, discern between candidates on the basis of issues and ideology) depends heavily upon the quality of the choices they are offered (Key 1966; Pomper 1972; Page 1978). Thus, the much-disputed rise in issue voting and ideological sophistication of the late 1960s and early 1970s (Nie and Anderson 1974; Nie, Verba, and Petrocik 1979) is seen as a response to changes in the electoral context in which voters operate. Similar arguments have been advanced about the importance of assessments of economic performance (Kelley 1983) and partisan identification (Fiorina 1980).

These observations lead us to a few fairly concrete hypotheses. First, the greater the differences between the candidates on policy matters (issues and, by extension, ideology) the greater we would expect the saliency of those cues to be. Second, the more extreme economic conditions are perceived to be, the greater we would expect the influence of evaluation of the incumbent to be. Finally, the greater the perceived difference between the parties, and the greater the attachment to the parties, the greater we would expect the impact of partisan identification to be.

RESEARCH DESIGN

Data from the 1972, 1976, 1980, 1984, and 1988 elections were used to examine these hypotheses (Center for Political Studies 1978, 1982, 1986, 1990).[5] In order to determine the saliency of each of six cues to vote choice (issues, ideology, approval of the incumbent, group associations, partisan identification, and candidate character assessments) across the five elections, measures of each cue which could be replicated for each data set were developed and PROBIT was used to estimate their influence on the choice

between the two major party candidates for president in each race. To get at the differences across races, the mean perceptions of voters of the ideological distance between the candidates, the average distance between candidates on the issue questions, the state of the economy, and the differences in overall candidate and party evaluations (thermometer scores) were computed. In addition, mean partisan identification strength and the average percentage of voters responding to each question about the two major party candidates' positions on particular issues was determined.

The perceived differential in proximity between voter and candidates on the issues was also measured.[6] First, the distance of the respondent from each candidate on each issue was determined by taking the absolute value of the difference between the respondent's placement of herself and the mean placement of the candidate on the seven-point issue scale.[7] Second, the resulting distance measure for the incumbent party's candidate was subtracted from the measure from the challenger's score. Thus, a positive score indicated relative closeness to the incumbent on an issue, while a negative score indicated relative closeness to the challenger. After zero was substituted for missing cases, the scores on each issue were regressed against the differences in the thermometer scores for the two candidates (Incumbent-Challenger). Any remaining missing cases were substituted for using Dempster's E-M algorithm.[8] The resulting predicted values were used as ISSUES. This measure captures both the magnitude of the relative proximity on each issue and the average salience of that issue to the voters.

The measure of ideological proximity (IDEOLOGY) is rather less complicated. Respondents rated themselves and each candidate on a seven-point liberal-conservative scale. The absolute value of the difference between the incumbent's mean attributed score and the respondent was subtracted from the absolute value of the difference between the challenger's mean attributed score and the respondent. Missing values were then substituted for using Dempster's E-M algorithm.

APPROVAL is an overall rating of incumbent performance on a five point scale. There were so few missing cases among voters that any that occurred were simply scored as '3'.

Developing a consistent measure for group attachment and influence was much more difficult. In all five surveys, however, respondents were asked to name the group they were closest to from a list given them by the researcher. From this list, dummy variables were created for identifiers with each group (those who identified with "liberals" or "conservatives," which were hopefully captured in the IDEOLOGY variable, as well as those who failed to identify with a group, made a sufficient excluded "group"). These

dummies were then regressed against the same thermometer score differential used by the ISSUES variable. Those respondents identifying with groups with a significant positive relationship were scored as +1 (inclined to support the incumbent). Those whose groups had no significant relationship were scored as zero (not inclined toward either candidate). Those identifying with groups with a negative significant relationship were scored as -1 (inclined to support the challenger). Excluded respondents were coded as zero. Thus, GROUP indicates whether identifiers with the respondent's closest group tended to favor the incumbent or the challenger.

Partisan identification (Party ID) is the seven-point NES party ID summary variable, recoded to make Democratic identification negative (since the incumbent in four of the five elections considered here was a Republican) and Republican identification positive. Missing data were substituted for using Dempster's E-M algorithm.

Assessments of candidate character were measured by regressing assessments on various character dimensions (which varied from study to study)[9] for each candidate against that candidate's thermometer score. The predicted values were saved and, after substituting for missing data (using the same technique as above), the challenger's score was subtracted from the incumbent's score. The resulting variable, CANDIDATE, functions as a measure of the perceived difference between the candidates in terms of their personal, non-policy, characteristics.

The dependent variable was the choice made between the two major party candidates. The incumbent party's candidate in each elections was coded as '1', while the challenger was coded a '0'. Those respondents not voting, or voting for other candidates, were excluded from this analysis. PROBIT was used to estimate coefficients for each of the dependent variables described above. Log-likelihood tests were used to distinguish between significant and insignificant variables, and insignificant variables were excluded from the analysis. Thus, a "best" model is reported for each election.

In addition to a model for all voters for the two major parties in each election, models were estimated in the same way for each of three levels of information. Voters were divided into groups based on a scale composed of the interviewers' rating of each respondent's information level (1-5) and whether or not the respondent placed the candidates on each of the issue scales used for that year in the same order that the mean assessments of the candidates' positions placed them (see Zaller 1990, for more details on this methodology). This created a twelve-point scale. Those scoring between 1 and 4 were assigned to the low information category. Those between 5

and 8 were placed in the medium information category. Those scoring 9 or higher were put in the high information category.

For each election, then, four models were estimated. First was an overall "best" model, which represents an average of all voters' assessments. Then "best" models were determined for each of the three levels of information. These are taken to indicate the impact of information usage on the choice decision.

Finally, several characteristics of voters were examined to ascertain differences across elections. To obtain the mean perceived difference between the candidates, the sum of the absolute value of the difference between the candidates on each of the issue questions was divided by the number of issue questions. Respondents who didn't place both candidates were counted as seeing no difference on that issue. This produced a score for each voter indicating the average distance perceived between candidates on the issues, without regard for where the voter stood. The overall mean of this score is reported for each year, along with the average across issues of the percentage of voters willing to identify both candidates' positions.

The mean ideological distance is just the mean of the absolute value of the difference in the scores for each candidate assigned on the seven-point liberal-conservative scale.

The mean assessment of economic conditions (based on a five-point scale from "have gotten much worse" to "have gotten much better") is also reported for each year. The further a score is from '3', the more the average respondent felt conditions were better or worse than a year ago.

The impact of party is assessed in two ways. First, the PID variable was folded to construct a party ID strength indicator. The mean for each year is reported. Second, the absolute value of the difference in the thermometer scores for the parties was calculated, and the mean reported.

Finally, the mean of the absolute value of the difference in candidate thermometer scores is reported for each election.

RESULTS

The across-election differences indicators are presented in Table 1. Notice that issue awareness seemed highest in 1984, while the perceived issue differential seemed greatest in 1984 and least in 1976. All other things being equal, we would expect this to lead to ISSUES mattering most in 1984 and least in 1976. This makes sense for our general understanding of the nature of the level of discourse in 1984, which was generally seen as a referendum on incumbent performance (Pomper 1985).

Table 1

ELECTION DIFFERENCES, 1972-1988
Between-election Differences in Voter Perceptions in Five Presidential Elections

	1972	1976	1980	1984	1988
Mean difference in candidate thermometer scores	44.8	31.3	36.2	42.7	39.1
Mean of average difference in placement on issue scales	1.6	1.1	1.4	1.9	1.6
Mean percent identifying both candidate positions on issue scales	66.9	64.8	67.4	79.8	64.1
Mean difference in candidate ideological placement (7 pt. scale)	3.0	2.3	2.6	2.8	2.9
Mean evaluation of economic conditions	3.7	3.4	2.5	3.3	2.9
Mean difference in party thermometer scores	19.1	17.5	27.2	31.3	33.4
Mean party ID strength (4 pt. scale)	1.9	1.8	1.9	2.0	2.0

The pattern for perceived ideological difference is somewhat different from that of issue distance. It dips to a definite low in 1976, but is quite high in 1972 and only slightly lower in 1984 and 1988. Thus, perceived differences in both issues and ideology (whatever that distinction truly means) seem to have been low in 1976 and high in 1984, while ideological distance was at its highest level in 1972 and 1988, when issue distance was only moderate. Whatever the connection between issues and ideology, however, we would expect the impact of ideology to be minimal in 1976, and relatively large in 1972, 1984, and 1988.

Economic assessments deviated from the midpoint (3.0) most in 1972 (for the better) and 1980 (for the worse). The importance of approval of presidential performance, then, may be greater in those elections. This squares, at least in the case of 1980, with many subjective assessments (Kelley 1983).

Finally, the party influence indicators are of interest. First, they fail to show the general decline in party importance described by many observers. There is very little variance in the partisan identification strength measure, and what there is mostly increases over time. The partisan difference

measure, on the other hand, increases quite substantially over time. One caveat should be considered here, however. Since I looked at only voters, and since the percentage of the electorate turning out has been declining, part of the effect may be a disjunction between the more party-sensitive active voters and the less party-sensitive nonvoters. Nonetheless, it is clear that we can't reasonably expect the effect of partisan identification among voters to decline over the period. If anything, it should be increasing.

The PROBIT results for the 1972 election are given in Table 2. The first set of results represents the "best" model for all voters, the second, the model for low information voters, the third, the model for those at medium levels of information, and the fourth set presents the "best" model for high information voters.

Before examining Table 1 in detail, it should be noted that it is possible, given the standardization of measures across information levels (and across years), to directly compare coefficients **for the same variables**. Thus the '.032' coefficient for Issues for high information voters indicates a greater salience than the '.011' and '.017' Issues coefficients for low and medium information voters. It is not, of course, possible to compare **across variables**, because they are measured on different scales.

Beginning with the model for "All Voters," it is important to note that issues, but not ideology, seemed to matter to voters in 1972. All of the other cues were significant except for group attachment.

The information grouping results, in general, seem to conform to the notions about differentiation in using cues advanced earlier. While those at low and medium levels of information did seem to make use of issues, the coefficient for Issues for those groups is substantially lower than the Issues coefficient for the high information voters. Finally, it was noticeably easier to predict the votes of medium and high information voters than it was the low information voters.

Table 3 contains the results for 1976. In the results for all voters, Ideology was not significant for voters in general (or in any of the information categories). Moreover, the coefficient for Issues is much lower than the Issues coefficient from 1972. Approval importance is similar between 1972 and 1976, but Group is significant in 1976 and the Candidate and Party ID coefficients are substantially higher in 1976 than in 1972. The general results suggest, then, that the 1976 election was less "issue-oriented" than 1972, but not necessarily less "ideological."

The 1976 results by information level conform strongly to the information-difference hypothesis.[10] First, the coefficient for Issues is significant

only for high information voters. Second, the number of significant cues rises as the information level rises, as does the percent correctly predicted.

Table 4 has the results for 1980. As in 1976, ideology was not a significant factor in the overall results. The Issues coefficient returns to nearly the 1972 level, but the importance of incumbent approval appears to be up somewhat, which conforms with the expectation based on the economic assessment. Party ID has a coefficient between those of 1972 and 1976,[11] while candidate assessment appears to have declined slightly in importance. The most striking result here is the degree to which Group's coefficient is greater than in 1976 (or, especially, 1972, when it was insignificant).

There are several interesting points about the information level results. First, issues appear to have been much more important for high information voters than medium information voters and, especially, low information voters in 1980. Second, the Candidate coefficient is significant only for medium information voters. Low information voters seem to have relied primarily on non-candidate-specific cues (partisan and group affiliations, retrospective judgements of the performance of the incumbent), while medium information voters turned more to candidate-oriented cues (note the relatively low coefficients for the cues relied on by low information voters). Interestingly, neither were very successful in using the cues to choose by, if the relatively low predictive success of the models for low and medium information voters, as compared to the high information voters, is any indication. Another interesting sidelight is that almost 58% of the low information respondents said they voted for Carter, as opposed to 42% overall.

The 1984 results are surprising, given that the average perceived issue difference is at its highest point in 1984 and that the average perceived ideological difference was also quite high. The Issues coefficient is at about the same level as in 1976, while Ideology remains insignificant. Approval makes a much stronger showing in 1984 than in 1980, even though economic assessments were only modestly positive. Party ID and Candidate remained relatively stable. Group dropped back out of the model.

The scarcity of cues for low information voters in 1984 is immediately apparent. Approval of Reagan's performance seems to be the major determining factor for these voters. The results for the medium and high information voters are very similar to one another. Issues were somewhat more important to high information voters, while medium information voters placed more reliance on incumbent approval and partisan identification.

Table 2

1972 PRESIDENTIAL ELECTION RESULTS
Probit Analysis of Two-party Vote Choice

Independent Variable	Estimated Coefficient	Standard Error	t-Statistic
		ALL VOTERS	
Constant	-0.904	0.182	-4.944
Issues	0.018	0.003	6.290
Approval	0.213	0.043	4.956
Party ID	0.270	0.040	6.762
Candidate	0.020	0.003	7.514
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-199.05	-490.33
number of observations		756	
percent correctly predicted		88.89	
		LOW INFORMATION VOTERS	
Constant	-0.528	0.295	-1.791
Issues	0.010	0.005	2.006
Approval	0.146	0.068	2.133
Party ID	0.228	0.061	3.725
Candidate	0.017	0.004	4.708
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-80.64	-119.89
number of observations		188	
percent correctly predicted		79.79	
		MEDIUM INFORMATION VOTERS	
Constant	-1.238	0.316	-3.575
Issues	0.017	0.005	3.294
Approval	0.289	0.077	3.730
Party ID	0.379	0.072	5.291
Candidate	0.026	0.005	5.620
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-68.75	-216.18
number of observations		340	
percent correctly predicted		91.77	
		HIGH INFORMATION VOTERS	
Constant	-1.325	0.364	-3.641
Issues	0.032	0.006	4.977
Approval	0.307	0.093	3.291
Candidate	0.149	0.006	2.460
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-39.44	-150.00
number of observations		223	
percent correctly predicted		92.83	

The models reported here constitute the "best" model for each information level. To avoid specification error in the estimates of the effects of each independent variable, only those variables with a significant impact (as measured using log-likelihood tests) are included.

Table 3

1976 PRESIDENTIAL ELECTION RESULTS
Probit Analysis of Two-party Vote Choice

Independent Variable	Estimated Coefficient	Standard Error	t-Statistic
		ALL VOTERS	
Constant	-0.944	0.123	-7.659
Issues	0.007	0.003	2.195
Approval	0.266	0.028	9.506
Group	0.176	0.050	3.502
Party ID	0.344	0.025	13.625
Candidate	0.028	0.002	11.762
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-490.41	-1083.3
number of observations		1563	
percent correctly predicted		86.76	
		LOW INFORMATION VOTERS	
Constant	-0.848	0.184	-4.600
Approval	0.244	0.042	5.847
Party ID	0.380	0.039	9.840
Candidate	0.024	0.004	6.740
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-214.34	-385.38
number of observations		556	
percent correctly predicted		82.19	
		MEDIUM INFORMATION VOTERS	
Constant	-1.116	0.197	-5.675
Approval	0.298	0.044	6.725
Party ID	0.302	0.038	8.019
Group	0.275	0.076	3.637
Candidate	0.031	0.004	8.547
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-208.03	-482.68
number of observations		697	
percent correctly predicted		88.67	
		HIGH INFORMATION VOTERS	
Constant	0.188	0.139	4.006
Issues	0.036	0.009	3.875
Group	0.301	0.154	1.953
Party ID	0.401	0.081	4.974
Candidate	0.050	0.009	5.547
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-55.18	-201.57
number of observations		291	
percent correctly predicted		92.44	

The models reported here constitute the "best" model for each information level. To avoid specification error in the estimates of the effects of each independent variable, only those variables with a significant impact (as measured using log-likelihood tests) are included.

Table 4

1980 PRESIDENTIAL ELECTION RESULTS
Probit Analysis of Two-party Vote Choice

Independent Variable	Estimated Coefficient	Standard Error	t-Statistic
		ALL VOTERS	
Constant	-1.052	0.168	-6.238
Issues	0.015	0.004	3.940
Approval	0.292	0.054	5.373
Group	0.856	0.117	7.311
Party ID	-0.291	0.042	-6.966
Candidate	0.020	0.004	5.454
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-197.46	-542.67
number of observations		796	
percent correctly predicted		89.57	
		LOW INFORMATION VOTERS	
Constant	-1.240	0.342	-3.621
Approval	0.377	0.112	2.911
Group	1.052	0.270	3.913
Party ID	-0.382	0.082	-4.649
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-45.793	-102.91
number of observations		151	
percent correctly predicted		88.08	
		MEDIUM INFORMATION VOTERS	
Constant	-1.185	0.248	-4.772
Issues	0.018	0.006	2.828
Approval	0.280	0.078	3.582
Group	0.794	0.178	4.455
Party ID	-0.272	0.063	-4.304
Candidate	0.030	0.006	5.381
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-94.31	-252.94
number of observations		373	
percent correctly predicted		88.74	
		HIGH INFORMATION VOTERS	
Constant	-1.240	0.305	-4.068
Issues	0.029	0.007	4.190
Approval	0.480	0.110	4.375
Group	0.951	0.218	4.354
Party ID	-0.345	0.087	-3.959
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-45.85	-176.31
number of observations		270	
percent correctly predicted		94.07	

The models reported here constitute the "best" model for each information level. To avoid specification error in the estimates of the effects of each independent variable, only those variables with a significant impact (as measured using log-likelihood tests) are included.

Table 5

1984 PRESIDENTIAL ELECTION RESULTS
Probit Analysis of Two-party Vote Choice

Independent Variable	Estimated Coefficient	Standard Error	t-Statistic
		ALL VOTERS	
Constant	-1.399	0.180	-7.772
Issues	0.009	0.002	3.829
Approval	0.496	0.048	10.304
Party ID	0.311	0.034	9.268
Candidate	0.017	0.002	6.842
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-297.00	-882.32
number of observations		1306	
percent correctly predicted		91.19	
		LOW INFORMATION VOTERS	
Constant	-1.588	0.347	-4.573
Approval	0.589	0.087	6.741
Party ID	0.376	0.064	5.841
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-71.62	-152.88
number of observations		233	
percent correctly predicted		88.84	
		MEDIUM INFORMATION VOTERS	
Constant	-1.442	0.284	-5.071
Issues	0.008	0.004	2.189
Approval	0.499	0.074	6.726
Party ID	0.308	0.050	6.115
Candidate	0.019	0.004	4.942
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-134.21	-372.09
number of observations		548	
percent correctly predicted		90.15	
		HIGH INFORMATION VOTERS	
Constant	-1.235	0.333	-3.713
Issues	0.012	0.004	2.905
Approval	0.437	0.096	4.575
Party ID	0.296	0.065	4.558
Candidate	0.019	0.005	3.636
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-86.99	-352.75
number of observations		519	
percent correctly predicted		93.06	

The models reported here constitute the "best" model for each information level. To avoid specification error in the estimates of the effects of each independent variable, only those variables with a significant impact (as measured using log-likelihood tests) are included.

Table 6

1988 PRESIDENTIAL ELECTION RESULTS
Probit Analysis of Two-party Vote Choice

Independent Variable	Estimated Coefficient	Standard Error	t-Statistic
		ALL VOTERS	
Constant	-1.241	0.158	-7.862
Issues	0.012	0.003	4.248
Ideology	0.074	0.033	2.221
Approval	0.351	0.043	8.286
Party ID	0.314	0.032	9.792
Candidate	0.023	0.003	8.894
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-283.96	-801.06
number of observations		1159	
percent correctly predicted		0.003	
		LOW INFORMATION VOTERS	
Constant	-1.350	0.297	-4.544
Approval	0.438	0.076	5.770
Party ID	0.303	0.053	5.725
Group	0.310	0.120	2.595
Candidate	0.015	0.004	3.584
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-95.60	-189.01
number of observations		273	
percent correctly predicted		86.08	
		MEDIUM INFORMATION VOTERS	
Constant	-1.255	0.314	-3.994
Issues	0.015	0.005	2.824
Approval	0.382	0.082	4.674
Party ID	0.315	0.062	5.045
Candidate	0.022	0.005	4.419
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-86.45	-227.67
number of observations		337	
percent correctly predicted		90.50	
		HIGH INFORMATION VOTERS	
Constant	-1.202	0.261	-4.614
Issues	0.012	0.005	2.755
Ideology	0.146	0.057	2.556
Approval	0.271	0.071	3.803
Party ID	0.383	0.058	6.593
Candidate	0.032	0.005	6.808
Auxiliary Statistics		At Convergence	Constant Only
log likelihood		-92.59	-377.07
number of observations		544	
percent correctly predicted		93.20	

The models reported here constitute the "best" model for each information level. To avoid specification error in the estimates of the effects of each independent variable, only those variables with a significant impact (as measured using log-likelihood tests) are included.

In Table 6, the 1988 election results for all voters indicate that issues are once again important and, for the first time, ideology was a significant determinant. The impact of incumbent approval is lower than in 1984, Group is still missing, and there is little change in the effect of Party ID or candidate assessments.

The results by level of information reveal a very close relationship to the predicted pattern. Low information voters did not rely at all on issues or ideology, although they did seem to be affected by group affiliations. Issues were important for medium information voters. High information voters responded to Issues as well, but also to Ideology. This reminds us that 1988 revealed the second-greatest perceived ideological difference between the candidates. The fact that it showed up only for the high information voters as a significant determinant, along with the fact that it has not been significant in earlier elections, may suggest that ideology is a cue which is really only useful to the most sophisticated voters, as the authors of the Michigan model suggested years ago.

CONCLUSION

This project, depending on just five elections, is more nearly a comparative case study than a systematic survey. As such, the generalizations drawn from it must necessarily be somewhat tentative. There is considerable support for the characterization of the effects of information offered earlier. On the other hand, few of the specific expectations about differences between elections were met.

The information-differentiation hypothesis is well supported. There were pronounced differences between information levels in each of the five elections. These differences were not as tidily consistent as one might have liked, but they consistently supported the view that high information voters choose on the basis of more and, arguably, better information than low information voters.

There is also very general support for the idea that differences between elections influence the decision calculus of voters. Beyond that, however, it is difficult to draw any specific conclusions. Ideology was not a significant factor in any election except 1988. Group affiliation didn't register with voters at all in 1972 or 1984, or strongly enough to show up in the "All Voters" results in 1988. The coefficients for most of the other influences fluctuated somewhat. The variation was not generally predictable, but some general patterns did seem to emerge.

The most noticeable variation occurred in the coefficients for the Issues variable (from .007 to .018). For the first three elections, the pattern

corresponds to the average perceived candidate difference on the issues and to the level of awareness of issue positions expressed by the respondents. Both of these indicators hit their high points for the period in 1984. The coefficient for Issues, however, dropped to its second-lowest level. Commentary at the time attributed the importance of incumbent approval (which reached its high point in this data in 1984) to the performance of the economy, but Table 1 shows that economic assessments were actually lower than in 1972 and 1976. This may suggest that the nature of the campaign (that is, the way in which the candidates present themselves) has a powerful influence on how people perceive and use the available information. The Issues variable returns to moderate levels in 1988, despite the appearance of Ideology as a significant variable.

Party ID is relatively low in importance in 1972, but, after rising in 1976, is relatively stable after that. Incumbent approval does rise in importance in 1980, relative to 1972 and 1976, just as an examination of the economic assessment mean would lead one to expect. However, it goes even higher in 1984 and remains higher in 1988 than in 1980, despite more moderate economic assessments. Perhaps this reflects the tendency of Ronald Reagan to be an "issue" unto himself as president.

As for group attachments and candidate character assessments, a few observations may be in order. First, in 1980 when Group had its greatest impact, people were trying to figure out what Ronald Reagan would mean to them. Having sorted that out in terms of their social groupings during the 1980 campaign, group affiliations once more receded into the background as an immediate consideration in later campaigns. Second, the importance of candidate character assessments is remarkably stable over the five elections. The only real surge in salience came in the 1976 election, when, by all accounts, there was relatively little else to distinguish between the candidates.

To sum up, the two major propositions advanced above did gain empirical support. There do appear to be systematic differences in how voters at different levels of information go about making up their minds. There does appear to be a response on the part of the voters to the nature of the campaign and its context as it changes from election to election. On the other hand, many questions about how these processes work, and how we can predict them accurately remain.

The proposition that voters not at the upper end of the political information and sophistication scales may still act "responsibly" is a difficult one to "prove." The results reported here, however, seem to point the way to a resolution of what Russell Neuman (1986) calls "the paradox of mass

politics:" that the electoral system appears to fairly successfully influence the behavior of elected officials despite the seeming lack of attention to and understanding of public policy and electoral politics displayed by most citizens. Essentially, most voters "learn" just enough to distinguish fruitfully between the candidates, and are often content to rely on rather indirect indicators of what future policy outcomes will be under different leaders, but this is sufficient to allow them to steer policy in a favorable direction. This does not mean, of course, that candidates may not, at times, manipulate voters, or that individual voters will not sometimes make "mistakes," but it does suggest that elected officials will find it difficult not to heed the, often unarticulated, desires of the majority of citizens.

NOTES

[1]In other words, this is an expected utilities model. Since the utility derived from an alternative is dependent upon all of an individual's tastes, it is not necessary to assume, as some rational choice models appear to, that voters are narrow "profit-seekers."

[2]In this context, the distinction between prospective and retrospective voting breaks down. Retrospective voting can be viewed as a means to the end of making better prospective choices at lower costs.

[3]This idea can be extended to individual voting cues (determinants of vote choice). That is, it is likely that different voters use the cues they possess differently depending on a number of information-related factors. First, the other cues a voter possesses knowledge of will temper the use of any given cue, as he or she attempts to develop a cognitively-consistent view of each candidate. Second, the content of the cue may be more or less rich depending on the amount of relevant information a voter possesses. Finally, the ability of a voter to utilize a cue may be affected by the contextual knowledge he or she possesses, as well as by the voter's level of cognitive complexity.

[4]Note that while these estimates are consistent, their accuracy varies according to the amount of information used.

[5]The data used in this paper were made available by the Inter-university Consortium for Political and Social Research. Neither the original collector of the data nor the Consortium bears any responsibility for the analyses or interpretations presented here.

[6]Only one of the issue questions was asked in every year. In order to standardize this as best I could, I chose seven issue questions for each year

(the number available in 1984). In 1972, the questions concerned busing, national health insurance, the role of women, rights of the accused, government responsibility for standard of living, tax rate progressivity, and withdrawal from Vietnam. In 1976, the questions concerned government responsibility for standard of living, busing, aid to minorities, national health insurance, dealing with urban unrest, legalization of marijuana, and the role of women. In 1980, the questions concerned defense spending, domestic service spending, trading off between inflation and unemployment, aid to minorities, cooperation with the Soviet Union, the role of women, and government responsibility for standard of living. In 1984, the questions concerned domestic service spending, aid to minorities, involvement in Central America, defense spending, aid to women, cooperation with the Soviet Union, and government responsibility for standard of living. In 1988, the questions concerned domestic service spending, defense spending, national health insurance, government responsibility for standard of living, aid to minorities, cooperation with the Soviet Union and the role of women.

[7]The mean placement of the candidates is used to avoid the problem of projection (the assumption that one's preferred candidate agrees with one on the issues). Proximity measures based on the perceived positions of the candidates risk inflating the effects of the Issues variable.

[8]The candidate thermometer scores are measures of the overall assessment of candidates by respondents. The difference in thermometer scores is very highly collinear with vote choice. The very fact that substantial portions of the variance in thermometer score differences can be explained by relative issue proximity suggests that thermometer scores capture more than "feelings." The technique of using predicted values from regressions of issue proximities on differences in thermometer scores is superior to a simple additive scale because the regression coefficients become weights indicating the relative salience (on average) of different issues. Predicted values are merely the issue proximity scores multiplied by the salience weights (coefficients), summed, with a constant added. The predicted values do not reflect any of the variance in the difference in thermometer scores which is not accounted for by the issues measures.

Missing data are substituted for to allow comparisons across models with different sets of independent variables. This technique avoids bias which can occur when the mean value is used for missing data. The E-M algorithm (Dempster, Laird, and Rubin 1977) substitutes a random variable with the same mean and standard deviation as the present case of the

substantive variable for the missing cases. Thus, the variance is unaffected, so that significance estimates are not biased.

In order to confirm that substituting for missing data did not affect the substantive findings, dummy variables were created for each independent variable such that cases which had missing data replaced were coded 1, while cases with sample data on that variable were coded 0. These variables were entered into the probit estimate of vote choice. Essentially, this procedure tests to see if the mean of the replaced cases is significantly different than the mean of the cases with sample data. In every case, these dummies failed to achieve significance, except for ISSUES in 1984, which were mildly significantly different ($t = 2.97$).

[9]Both the number of different assessments and the particular adjectives used varied considerably. Thus, some years may have more accurate measures than others. In 1972, respondents were only asked if the candidates "could be trusted" and if they had "presidential personality." In 1976, they were also asked if candidates would "bring morals to government," and would "make government run better." In the 1980, 1984, and 1988 studies, respondents were asked how well a series of adjectives fit each candidate. In 1980 that list included moral, honest, hard-working, knowledgeable, powerful, inspiring, and "provides strong leadership." The 1984 list included decent, competent, intelligent, moral, inspiring, knowledgeable, and "provides strong leadership." The 1988 list included intelligent, competent, moral, inspiring, decent, caring, knowledgeable, and "provides strong leadership." All the measures available were used for 1972 and 1976. For 1980, 1984, and 1988, those they shared in common were used: moral, knowledgeable, inspiring, and "provides strong leadership." The same logic applies to this variable as to the Issues variable for using the predicted values from a regression against thermometer scores, although, in this case, it also has the effect of standardizing the scores.

The use of thermometer scores as the basis for two separate independent variables is not a problem, since only the variance captured by the independent variables in the instrument is captured in the resulting scores. The zero-order correlation between CANDIDATE and ISSUES was .42 in 1972, .17 in 1976, .22 in 1980, .40 in 1984, and .27 in 1988.

[10]The results here are nearly identical to my original (Moon 1990) results, despite rather different measures, especially for information level. The only deviation is the lack of significance of Approval in the current results for high information voters.

[11]The negative coefficient is due to the incumbent being a Democrat.

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