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The Simple Act of Voting*

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Modern prodigies of election forecasting tend to obscure an important fact: Our ability to predict how voters will vote is far more solidly based than our ability to explain why they vote as they do. To acknowledge this fact, as any analyst of voting must, is to admit that some of the most interesting questions about voting and elections cannot at present be given satisfactory answers. What particular attitudes actually bear on voting, the character and quality of such attitudes and perceptions, the impact of campaigns, the extent to which elections serve to increase the responsiveness of officials on the issues that voters see as at stake in elections—secure knowledge about these matters must wait upon a securely established theory of voting. At present, there is no such theory.

The main purpose of the research to be reported here can be put quite simply: It was to improve upon current explanations of voters' choices and so to increase the relevance of studies of voting to politically significant questions. Obviously, such a goal requires one to adopt some criterion or criteria for assessing the degree to which it has been achieved. In our work we have chosen to regard one set of facts as a better explanation of how people vote than another, if it (a) shows a stronger, nonspurious statistical association with voters' choices, (b) involves a more believable (and nontrivial) account of the way voters arrive at their decisions, and (c) permits one to predict voters' choices more accurately.[1]

In the published literature the explanation of voting that best meets this test is that offered by Angus Campbell and his associates. The authors of *The American Voter,* in that book and elsewhere, have shown that one can discriminate with great accuracy between Democratic and Republican voters in presidential elections on the basis of voters' attitudes, variously weighted, toward a limited set of political objects: the personal attributes of the candidates, the relations of interest groups to the major parties, issues of domestic policy, issues of foreign policy, and the records of the major parties in managing the affairs of government.[2] Some 85 per cent of all voters

[1] In using this criterion of explanatory value, we are following C. G. Hempel who observes: ". . . it may be said that an explanation . . . is not complete unless it might as well have functioned as a prediction: If the final event can be derived from the initial conditions and universal hypotheses stated in the explanation, then it might as well have been predicted, before it actually happened, on the basis of a knowledge of the initial conditions and the general laws." (Carl G. Hempel, *Aspects of Scientific Explanation* [The Free Press: New York, 1965] p. 234.)

[2] See Angus Campbell, Philip E. Converse, Warren E. Miller, and Donald E. Stokes, *The American Voter* (John Wiley and Sons, Inc.: New York, 1960), pp. 66–68. See also Angus Campbell and Donald E. Stokes, "Partisan Attitudes and the Presidential Vote," pp. 353–371, in *American Voting Behavior,* Eugene Burdick and Arthur J. Brodbeck, eds. (The Free Press: Glencoe, 1959); Donald E. Stokes, Angus Campbell, and Warren E. Miller, "Components of Electoral Decision,"

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(as represented in sample surveys) vote consistently with their attitudes on these matters. That is a higher proportion than vote consistently with their partisan identifications, their social status and position, or even their stated intentions.

Nonetheless, by the test just proposed, this explanation of voting has three important shortcomings. The 15 per cent of voters that one cannot account for in terms of it are a sizable proportion of the electorate; it provides no believable account of the way voters make up their minds; and it gives no satisfactory basis for *predicting* how voters will vote. The method used in *The American Voter* to account for votes is only (and was intended to be only) an accounting after the fact. This is so because the accuracy of the method is dependent on the weights assigned to each of the "components of electoral decision," and the multiple regression techniques used to assign these weights require that one know before beginning analysis how voters have voted. Of course, if the values of the assigned weights remained constant from election to election, the regression equation that accounted well for the results of one election would predict votes well in later ones. But this is not so; as calculated by Campbell and his associates, the values of the weights change.[3]

These shortcomings indicate that something is amiss in this explanation of voting, but what? A quite simple conception of decision making suggests a possible answer. Any decision may be thought of as involving both a set of considerations (conscious or unconscious) and a rule (conscious or unconscious) in accordance with which these considerations are weighed. Now, the attitudes in terms of which Campbell and his associates explain voters' choices are quite credible as *considerations* that enter into such choices; perhaps what is wrong is that the rule or rules that voters follow in translating these attitudes into votes have not been taken into account. To put it another way, perhaps the authors of *The American Voter* have identified the ingredients that go into voting decisions but not the recipe for mixing the ingredients.

A guess that this might be true was our

point of departure from previous research on voting. We assumed tentatively that attitudes toward candidates and parties (and issues of policy, as these may be implicated in such attitudes) are the principal considerations that figure in voting decisions. We looked for the rule or rules voters apply to these considerations in deciding how to vote—hoping, but not assuming, that voters' decision rules would not turn out to be idiosyncratic. If we could identify such a rule or rules, we might have the better explanation of voting that we sought: Knowledge of the considerations that a person is taking into account *and* of the rule he is applying are a sufficient basis both for predicting what he will decide and for explaining his decision. Such knowledge is also a necessary, though not sufficient, basis for the obvious next step in the elucidation of a decision: explaining why particular considerations were taken into account and why a particular decision rule was used.

Research Procedure

Our basic data came from the surveys conducted in connection with each of five presidential elections (1952, 1956, 1960, 1964, 1968) by the Survey Research Center of the University of Michigan. Respondents' answers to a set of questions about the major parties and candidates gave us (as they did Campbell and his associates) our information about voters' attitudes. These questions, put to voters in pre-election interviews, were open-ended and identical in form for each of the elections.[4] Interviewers invited respondents to state what they liked and disliked about each of the candidates and each of the major parties in turn. Respondents replied with statements as various as "he [Stevenson] is divorced," "it's sort of begun to tighten up since the Republicans got in"; and, "he's [Eisenhower has] pulled us out of war."[5] Interviewers recorded up to five dif-

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[4] The questions about parties were worded as follows: "I'd like to ask you what you think are the good and bad points about the two parties. Is there anything in particular that you (like, don't like) about the (Democratic, Republican) Party? What is that?" The questions about candidates were, "Now I'd like to ask you about the good and bad points of the (two, three) candidates for President. Is there anything in particular about (name of candidate) that might make you want to vote (for him, against him)? What is that?" The variable numbers for these questions in the code books of the Inter-University Consortium for Political Research are as follows: 1952, 0018–0021; 1956, 0015–0022; 1960, 0020–0027; 1964, 0021–0028; 1968, 0028–0037.

[5] For a larger sampling of responses to these questions, see Angus Campbell *et al.*, *The American Voter*, pp. 224–229.

The American Political Science Review 52 (June, 1958), 367–387; and Donald E. Stokes, "Some Dynamic Elements of Contests for the Presidency," *The American Political Science Review* 60 (March, 1966) 19–28.

[3] See Stokes, Campbell, and Miller, "Components of Electoral Decision," pp. 380–385, and Donald E. Stokes, "Some Dynamic Elements of Contests for the Presidency," p. 20.

ferent responses to each question for each respondent.

Having taken such responses to be the stuff of which voters fashion choices among candidates, we adopted a straightforward procedure in our search for the voter's decision rule. We formulated several rules—some simple, some complex—that voters might apply in proceeding from a set of attitudes to a decision to vote for a particular candidate. Each rule was then applied to the likes and dislikes that respondents had expressed about candidates and parties, yielding a set of predicted decisions that we could check against the votes reported by respondents in postelection interviews.

The reader should note that the predictions to be checked concerned only *how* voters would vote, not *whether* they would vote. Given that our primary interest was in predictions of the former sort, each decision rule was properly examined by applying it only to the attitudes of those survey respondents who reported having voted. Such rules could of course also be applied to the attitudes of nonvoters and we did apply them in that way, but this application was, for our purposes, of secondary interest. Even if our goals had been different, however, the distinction between the decision to vote and the decision to vote in a particular way is important to preserve. A comparison of candidates resulting in a choice among them should be one consideration—but not the only one—in the decision about whether to vote. Considerations about the efficacy, convenience, and cost of voting should also enter.[6]

We will report our results for one decision rule only, which, for the sake of convenience, we will call the Voter's Decision Rule, or simply, "the Rule." It is as follows:

The voter canvasses his likes and dislikes of the leading candidates and major parties involved in an election. Weighing each like and dislike equally, he votes for the candidate toward whom he has the greatest net number of favorable attitudes, if there is such a candidate. If no candidate has such an advantage, the voter votes consistently with his party affiliation, if he has one. If his attitudes do not incline him toward one candidate more than toward another, and if he does not identify with one of the major parties, the voter reaches a null decision.

When applied to the data, this rule consistently (and unexpectedly) produced a more accurate

[6] Cf. Anthony Downs, *An Economic Theory of Democracy* (Harper and Brothers: New York, 1957), pp. 260–274.

set of predictions than any we could obtain with alternative decision rules.[7]

It will be noted that the Rule produces two types of predictions: (1) predictions from attitudes—in those cases in which the Rule yields an unequal net number of attitudes favorable to the candidates; (2) predictions from "residual partisanship"—in those cases in which the Rule indicates that the vote is to be in accordance with the voter's party affiliation. Null decisions are, for us, unpredictable; that is, they give us no basis for saying how the voter will vote. While they might be interpreted either as decisions to abstain or to make a random choice among candidates, we shall count as errors cases in which the Rule yields a null decision, just as we do cases of incorrect predictions from attitudes and of incorrect

[7] For a precise description of the procedure employed in predicting how voters would vote on the basis of the Voter's Decision Rule, see Appendix.

It may be useful here to note some of the other decision rules we formulated and tested against data for the 1964 election. There were twenty-five such rules applied to data of the kind to which we applied the Rule, but they may be thought of as members of two families. The first of these comprised rules that differed from each other in regard to the responses to which they were applied but were alike in giving equal weight to all responses treated as considerations. Thus, in the case of each rule, voters were predicted to vote for the candidate toward whom they had the greatest net number of favorable attitudes. Some of the different sets of responses treated as considerations were those to questions about candidates, in which one or both were associated with favorable or unfavorable developments in some named area of public policy; about parties, in which one or both were associated with favorable or unfavorable developments in the general course of public policy, etc.

The thirteen rules of the second family were more complex. Their application involved four distinct steps: (a) Responses to the questions described in *f.n.* 4 were grouped into mutually exclusive subsets (as few as two, as many as nine). (b) These subsets of responses were assigned an order of importance (*e.g.,* responses involving specific issues of policy might be treated as of greatest importance to the voter, those concerned with the general course of public policy as of next most importance, etc.). (c) The responses (considerations) in each *subset* were summed, each response weighing equally. Then, (d) in the case of each rule, voters were predicted to vote for the candidate for whom they had the greatest net number of favorable attitudes in the subset of attitudes designated as most important, if there was such; if not, for the candidate for whom they had the greatest net number of favorable attitudes in the subset of attitudes designated as next most important, if there was such, etc. The rules of this general sort differed from each other in the order of importance they assigned to different subsets of considerations, and they were applied to subsets of responses that were defined in several different ways.

At a very early point in our research we formulated still other rules, and these were applied to responses other than those to which we applied the Rule and the rules just described.

predictions from residual partisanship. A large part of our analysis of the Rule will be an examination of these three types of errors, especially of the first.

Is the Rule a believable decision rule for voters? Its simplicity should count for it in this regard. One would expect the voter's decision rule to be a simple one, since the act of voting is not one in which most people invest much time or thought. Application of the Rule as stated amounts to saying, "There is more to be said for voting for this candidate than for his opponent (opponents). Therefore, I will vote for him," or "There is nothing more to be said for voting for this candidate than for his opponent (opponents). Therefore, I will stick with my party." This procedure is akin to what one does when one lists pros and cons on a sheet of paper in trying to decide whether to take a new job—akin, except that a voter in applying the Rule would not try to differentiate the weights of the various considerations that enter into his decision. If voters apply the Rule, undoubtedly most do so unconsciously; otherwise we should have been aware of their use of it long ago. The observation is not a strong point against the Rule's credibility, however; we are not conscious of the way we arrive at many kinds of decisions. We will return to this issue of the Rule's credibility after assessing its value in predicting how voters will vote.[8]

[8] It is appropriate to acknowledge here some lines of thought akin to those that we brought to the present study. Anthony Downs in *An Economic Theory of Democracy* has made the notion of a decision rule for voters a central element in his theory of voting, as do a number of other writers, including Otto A. Davis, Melvin J. Hinich, and Peter Ordeshook in "An Expository Development of a Mathematical Model of the Electoral Process," *American Political Science Review* 64 (June, 1970), 426–448. Donald E. Stokes, Angus Campbell, and Warren E. Miller (in "Components of Electoral Decision") have used a summated

Findings: The Presidential Elections of 1952, 1956, 1960, and 1964

Principal Findings. The results in predicting how respondents voted in the two-candidate presidential elections of 1952, 1956, 1960, and 1964 were impressive. Our data enabled us to make a prediction based on the Rule for more than 98 per cent of those respondents who reported how they had voted in those elections. (If the Rule yielded a null decision, we made no prediction.) Most of these predictions were based on respondents' attitudes toward candidates and parties, only a few on the partisan identifications of respondents. We predicted *correctly*, on the average, the votes of 88 per cent of those who had reported how they had voted. Table 1 summarizes these results.

Party canvassers and political analysts alike often predict the votes of individual voters either from the voter's party affiliations or from

scale, not interpreted as a decision rule, to indicate the preferences of voters with regard to each of the "components of the electoral decision" that they identify, and Walter F. Murphy and Joseph Tannenhaus (again, among others) have used such a scale to measure specific support for the Supreme Court. (See their "Public Opinion and the United States Supreme Court," *Law and Society Review* 2 [May, 1968], pp. 357–384.) Very similar to our own conception of voting is that of Richard Brody and Benjamin I. Page in "Indifference, Alienation, and Rational Decisions: The Effects of Candidate Evaluations on Turnout and the Vote" (unpublished ms.). The same may be said about the conception of voting underlying one of the models tested by William R. Shaffer in *Computer Simulations of Voting Behavior* (Oxford University Press: New York, 1972), pp. 65–68 and that developed by David M. Kovenock, Philip L. Beardsley, and James W. Prothro in "Status, Party, Ideology, Issues and Candidate Choice: A Preliminary Theory-Relevant Analysis of the 1968 American Presidential Election" (a working paper prepared for Specialist Meeting B:XI, Eighth World Congress of the International Political Science Association, August 31–September 5, 1970).

Table 1. Summary of Results in Predicting the Votes of Individual Voters in Accordance with the Voter's Decision Rule

Election	Sample Size[a]	% of Cases in Which Data Permit a Prediction from			% of Cases in Which Votes Were Correctly Predicted from		
		Attitudes Alone	Residual Partisanship	The Rule	Attitudes Alone	Residual Partisanship	The Rule
1952	1184	94.2	4.3	98.5	84.3	2.8	87.1
1956	1270	93.2	5.3	98.5	81.9	3.3	85.2
1960	1413	95.5	3.4	98.9	85.7	2.5	88.2
1964	1113	95.6	4.0	99.6	87.3	3.0	90.3

[a] Samples are samples of persons who voted, excluding those who refused to say how they had voted, or who said they did not remember how they had voted.

Table 2. A Comparison of Results in Predicting the Votes of Individual Voters in Accordance with the Voter's Decision Rule, from Partisan Identifications, and from Stated Intentions

Election	Sample[b] Size	% of Cases in Which Data Permit a Prediction from			% of Cases in Which Votes Were Correctly Predicted from			Accuracy[a]		
		The Rule	Party[c] Indent.	Intended Vote	The Rule	Party[c] Ident.	Intended Vote	The Rule	Party[c] Ident.	Intended Vote
1952	1184	98.5	94.3	87.9	87.1	76.1	82.8	88.4	80.9	94.1
1956	1270	98.5	90.5	89.2	85.2	75.3	83.1	86.5	83.2	93.1
1960	1413	98.9	91.3	87.0	88.2	78.5	81.9	89.1	86.0	94.1
1964	1113	99.6	94.1	88.7	90.3	78.4	84.1	90.7	83.4	94.8

[a] Correct predictions as a percentage of all predictions.

[b] Samples are samples of persons who voted, excluding those who refused to say how they voted, or who said they did not remember how they had voted.

[c] Here, and throughout, respondents who described themselves as "strong" Democrats, "not so strong" Democrats, or as Independents leaning toward the Democrats are treated as identifying with the Democratic Party; and respondents who described themselves as "strong" Republicans, "not so strong" Republicans, or as Independents leaning toward the Republicans are treated as identifying with the Republican Party.

his statement that he intends to vote for a particular candidate. Table 2 permits one to compare the scope and accuracy of predictions arrived at in both these ways with the scope and accuracy of predictions derived from the Voter's Decision Rule. Clearly, the Rule is a better basis for predicting votes than are voters' partisan identifications: It permits one to make predictions in a larger percentage of the cases, to predict a larger percentage of all votes correctly, and to make more accurate predictions. While predictions based on the Rule are not so likely to be correct as those based on the voter's statement of how he intends to vote, the Rule permits one to predict a larger proportion of all votes correctly. Its superiority in this regard comes from the greater number of predictions one can make; About ten per cent of each of the samples that figure in Table 2 were comprised of voters who had not decided, or would not say, how they intended to vote, but whose votes could nonetheless be predicted by applying the Voter's Decision Rule to their stated likes and dislikes of candidates and parties.

Secondary Findings. How well can one predict the division of the major party vote by applying the Rule? Table 3 shows the answer to be: Better than one can predict it from voters' partisan identifications, and at least as well as one can predict it from voters' statements of how they intend to vote. None of the three procedures for prediction is superior to the others in every case. In estimating the division of the vote in the sample, however, we find that estimates based on the Rule are on the average much more nearly correct than those based on partisan identifications and somewhat more accurate than estimates based on voters' stated intentions.[9]

As we have noted above, the Voter's Decision Rule is a rule for translating attitudes toward candidates and parties into a decision about how to vote, not whether to vote. If,

[9] There are errors involved in all the estimates presented in Table 3 (particularly large ones in 1964). Since the three procedures for estimating the division of the vote have been applied to the same data for any given election, however, these sources of error have been (for our purposes) held constant.

Table 3. Results in Predicting the Division of the Major Party Vote in Accordance with the Voter's Decision Rule, from Partisan Identifications, and from Stated Intentions

Election	% of Actual Vote for Major Parties That Was Democratic		% of Major Party Vote Predicted To Be Democratic		
	Population	Sample	The Rule	Intended Vote	Party Indent.
1952	44.6	41.7	45.0	42.7	59.2
1956	42.2	40.2	44.8	42.6	58.0
1960	50.1	49.0	49.4	45.1	58.5
1964	61.3	67.4	69.5	72.3	65.5

however, the outcome of the former decision does figure in the latter, it is reasonable to suppose that respondents for whom the Rule yields either a null decision or a narrow advantage for one candidate will be less likely to vote than those for whom the Rule yields a strong advantage for one of the candidates. What happens if we apply the Voter's Decision Rule to all respondents, nonvoters as well as voters?

Figure 1 shows the relationship between non-voting and respondents' attitudes toward candidates and parties, aggregated in accordance with the Rule. In that figure, data from the surveys of the presidential elections of 1952, 1956, 1960, and 1964 have been averaged. Along the horizontal axis are the net scores that the Voter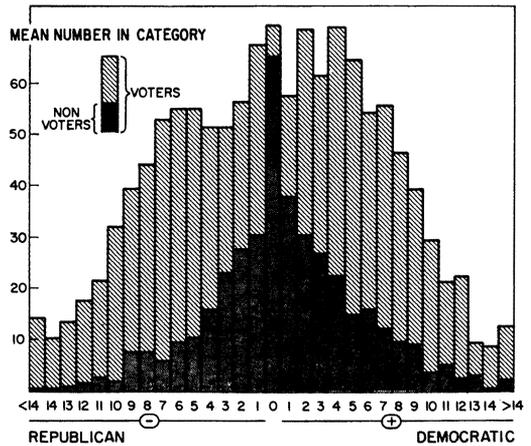's Decision Rule yields: Net scores favorable to Democratic candidates[10] are positive, and net scores favorable to Republican candidates are negative. In the center of the scale are the scores given those respondents whose attitudes gave no advantage to any candidate. Scores of +0 were given such respondents when they identified with the Democratic Party; scores of −0 when they identified with the Republican Party; and scores of 0 when

Figure 2. Mean numbers of voters and nonvoters related to net scores derived from the voter's decision rule, for the elections of 1952, 1956, 1960, and 1964.[a]

[a] Samples for the four elections include all respondents who said they had voted (including those who would not say how they had voted or who said they did not remember how they had voted) and all who said they had not voted.

they identified with neither party. The figure's essential message is obvious: Rates of nonvoting among respondents were strongly related to the scores that the Rule yielded for them. On the average, almost 70 per cent of those with net scores of zero (i.e., respondents reaching a null decision) failed to vote, while quite low rates of nonvoting were associated with high (absolute) net scores, particularly among respondents who preferred Republican candidates.

Now, the high rates of nonvoting associated with net scores of low absolute value would be of little significance if almost all voters had high net scores. That, however, is not the case. Figure 2 shows the numbers of respondents in the subsamples of voters and nonvoters, classified by net scores from the Rule. These are the raw data underlying Figure 1, except that we have collapsed the three zero categories into one.[11] From the figure, two facts are immediately apparent: In the four elections a large proportion of the respondents were not deeply committed to the candidate they preferred; and, on the average, almost 70 per cent of the respondents who did not vote had scores ranging from +4 to −4 inclusive. There is thus

Figure 1. Mean rates of nonvoting related to net scores derived from the application of the voter's decision rule, for the elections of 1952, 1956, 1960, and 1964.[a]

[a] Samples for the four elections are samples of all respondents who said they had voted (including those who would not say how they had voted or who said they did not remember how they had voted) and all who said they had not voted.

[10] We are using the term, "net score," here and elsewhere to refer to the quantity yielded by subtracting the net number of favorable attitudes that a voter has toward the Republican candidate from his net number of favorable attitudes toward the Democratic candidate. See Appendix.

[11] Note that Figure 2 is really two figures: The average number of voters with each net score is given by the full height of the bars, while the average number of nonvoters is given by the lower portions of the bars.

little room for doubt that the *rates* of non-voting associated with differing net scores have a strong impact on the actual *amounts* of non-voting.[12]

Errors in Principal Findings. In the four two-candidate presidential elections from which our data thus far have been taken, respondents whose votes were not predicted correctly ranged from 14.8 per cent of all the respondents who voted in 1956 to 9.7 per cent of all such respondents in 1964. We will discuss the shortcomings of the Voter's Decision Rule as a basis for predicting votes by examining separately and in reverse order, errors attributable to incorrect predictions from attitudes, to incorrect predictions from residual partisanship, and to null decisions.

In 1952, 1956, and 1960, the votes of those voters for whom the Rule yielded a null decision made up about 10 per cent of all votes not predicted correctly; in 1964, about 5 per cent. When our results for all four elections are considered together, there is, or seems to be, a pattern in the behavior of these respondents. In all four elections (and in 1968 as well), they cast their votes preponderantly for the candidate who actually won the election; this was true even in 1960 when the sample as a whole gave a tiny margin of victory to Richard Nixon.
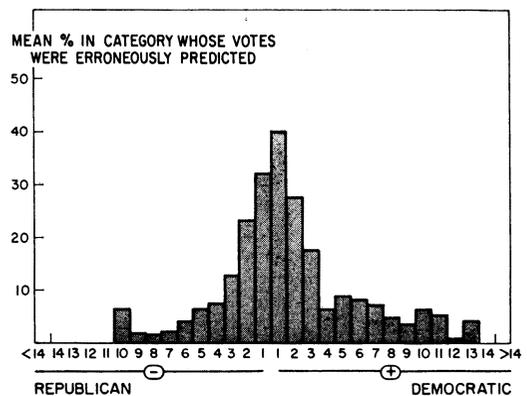
Respondents whose attitudes gave no advantage to a candidate and whom we wrongly expected to cast votes consistent with their partisan identifications ranged from 8 per cent (1960) to 17 per cent (1956) of all respondents whose votes were not predicted correctly. The behavior of residual partisans generally was akin to that of the voters for whom the

[12] William R. Shaffer tried to simulate decisions of voters to vote and voters' choices among candidates in accordance with rules inspired by the analysis of the "components of electoral decision" by Campbell, Converse, Stokes, and Miller. His decision rule for choice among candidates was nearly the same as ours, and he tested the accuracy of his simulation against data from the SRC survey of the 1964 presidential election that was only slightly different from that with which we worked in analyzing that election. His rule for decisions about whether to vote did not work well, and he concludes that "abstention does not appear to be rooted in the same preferential decision-making process" (Shaffer, *Computer Simulations of Voting Behavior*, p. 133). We think there is good reason to believe that some of the same considerations enter both the decision to vote and the decision about how to vote, but there is equally good reason to think that each is determined by a different *set* of considerations. For instance, once in the polling booth, considerations of convenience will play no part in a choice among candidates, since it is equally convenient to vote for any of them, but convenience does have an important bearing on the decision about whether to vote.

Rule yielded null decisions: In the elections of 1952, 1956, and 1964, residual partisans of the winning candidates were more likely to cast votes consistent with their partisanship than were residual partisans of the loser. In 1952 this tendency was pronounced: 80 per cent of the Republicans who voted as residual partisans voted for Eisenhower, while only 58 per cent of their Democratic counterparts voted for Stevenson.

Most of our errors—never less than three-fourths of them—were incorrect predictions from attitudes. These were cases in which the voter's attitudes gave an advantage to one candidate while his vote went to the other. Errors of this sort were so large a part of the total number, not because attitudes were a poor basis for prediction, but because predictions of this sort were so large a part of all predictions. Our predictions from attitudes were more accurate in every election than our predictions from residual partisanship.

Perhaps the most striking fact about the errors made in predictions from attitudes is the extent to which they were associated with the net scores that the Voter's Decision Rule yielded for respondents. Figure 3 gives the rates of error, averaged over the four elections, that were associated with predicting the votes of respondents with different net scores. Predictions for respondents with high (absolute) net scores were very accurate, those for respondents with low (absolute) net scores much less so. Figure 4 shows the mean proportion of the errors in predictions from attitudes that were associated with each net score. On the average, 84 per cent of all errors made in predictions from attitudes, and 57 per cent of all

Figure 3. Mean rates of error in predictions from attitudes, related to net scores derived from the voter's decision rule, for the elections of 1952, 1956, 1960, and 1964.
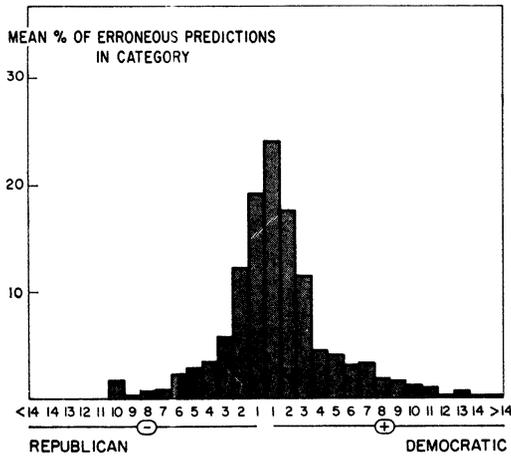
MEAN % OF ERRONEOUS PREDICTIONS IN CATEGORY

Figure 4. Mean percentages of all errors in predictions from attitudes that were associated with each of the net scores derived from the voter's decision rule, for the elections of 1952, 1956, 1960, and 1964.

errors, were made in predicting the votes of respondents with net scores ranging between +3 and −3, inclusive.

When the net number of attitudes favoring one candidate or the other is held constant, another fact about the errors in predictions from attitudes emerges: The greater the total number of attitudes expressed by a respondent, the greater was the likelihood that the Rule would predict his vote incorrectly. Table 4, in which the data from the four elections are pooled, demonstrates this relationship. From the table, one can see that our error rate went down as the net number of attitudes favoring a candidate rose, but that it rose fairly sharply with increases in the total number of attitudes from which the net scores were computed. The effect of this latter phenomenon on our ability to make correct predictions was not trivial. About one-third of the cases that figure in

Table 4. Error Rates in Predictions from Attitudes Related to the Total Number of Attitudes Expressed (Data from Surveys of the Elections of 1952, 1956, 1960, and 1964)

Net Score	Number of Attitudes		
	1–4	5–8	9–20
+1, −1	26.9%[a]	34.5%	42.9%
+2, −2	16.7	24.2	36.6
+3, −3	5.9	14.1	24.5

[a] Percentages are errors as a proportion of all predictions in each cell.

Table 5. The Relationship of Party Identifications to Rates of Error in Predicting Votes from Attitudes

Election of	Vote Predicted Was		
	Consistent with Party Ident.	Inconsistent with Party Ident.	Other (Independents)
1952	5.7[a]	24.0	15.9
1956	7.1	36.3	20.6
1960	6.4	37.7	9.3
1964	5.8	27.7	4.9
Mean	6.3	31.4	12.7

[a] Figures are incorrect predictions as a percentage of all votes predicted in the indicated categories.

Table 4 were cases of respondents who had expressed from 9 to 20 attitudes toward the parties and candidates, while 46 per cent of the errors tallied in the table occurred in predicting the votes of such respondents.

The errors made in predictions from attitudes were also systematically related to the partisan identifications of respondents. We did well in predicting votes of respondents when our predictions were consistent with their partisan identifications, not nearly so well when our predictions were inconsistent (see Table 5). Some 40 to 50 per cent of the votes erroneously predicted from attitudes, and 30 to 43 per cent of all votes not predicted correctly, were those of respondents who we wrongly predicted would cross party lines.

Errors in predictions from attitudes were related to partisanship in another way also. In the landslide elections of 1952, 1956, and 1964, we were more likely to be wrong in predicting votes for the losing candidate than in predicting votes for the winner. As one can see in Table 6, this effect was relatively small in 1964 but substantial in 1952 and 1956. The data presented in Table 6, together with those

Table 6. Comparison of Rates of Error in Predicting Votes from Attitudes for Democratic Candidates vs. Republican Candidates

Election of	Vote Was Predicted To Be	
	Democratic	Republican
1952	14.1[a]	7.7
1956	17.4	8.2
1960	10.9	9.7
1964	7.8	10.7

[a] Figures are incorrect predictions as a percentage of all predictions in the indicated categories.

already presented regarding the votes of residual partisans and of the respondents who reached null decisions, suggest that the short-term forces affecting elections (in the sense Campbell and his associates use that phrase) were not adequately taken into account in our predictions.

Sources of Error in Principal Findings. The construction that one puts on this and on the other facts that we have so far set forth will differ, depending on what one takes to be the main source of our errors. If it is right to think of decisions as being determined by a set of considerations and a rule for weighing such considerations, then, logically, our predictions could be in error because

(1) subconscious considerations were a significant factor in the decisions of some respondents;

(2) the decisions of some respondents were determined wholly or in part by considerations of which they were aware at the time they were interviewed but which were not among those on which our predictions were based;

(3) some respondents' decisions were determined wholly or in part by considerations which arose in their minds after they were interviewed and before they voted;

(4) some respondents did not give equal weight to the considerations that entered into their decisions—that is, the Rule was not the decision rule that they used;

(5) there were errors, systematic or random or both, in the data to which the Rule was applied;

(6) some respondents, or we ourselves, made mistakes in applying the Rule;

(7) some respondents made mistakes in voting (as, for instance, by pulling the wrong lever) and reported these mistaken votes as their votes.

We have not tried to find out the extent to which our errors may be explicable in terms of the first or last of these propositions. It is not clear how we could do so, given the data. Proposition (2) does not seem a likely explanation of most of our errors since it was the respondents themselves, in answers to open-ended questions and subjected to repeated probes from interviewers, who volunteered the attitudes we have treated as considerations. Moreover, among the respondents whose votes we predicted from attitudes and who expressed a preference for a candidate, our predictions were consistent with their preferences about 96 times out of a hundred. In the absence of

any specific hypotheses about what considerations may have been left out of account, we made no further effort to test the proposition. We have considered at length whether, and to what extent, our errors might be explained in terms of propositions (3), (4), and (5). Proposition (6), if true, would lead to behavior (or an attribution of behavior) equivalent to that described in Proposition (4). Except for checks on our own work, we made no effort to test it separately.

Proposition (4)—that some voters do not give equal weight to the considerations bearing on their decisions—has considerable common sense appeal as an explanation of our erroneous predictions. One might suppose, for example, that in the election of 1960 the so-called religious issue weighed more heavily than other issues with Catholic voters. If that were so, one would expect predictions derived from the Rule to have been in error more frequently for Catholics predicted to vote Republican than for other voters so predicted. This expectation is borne out: Our rate of error for those Catholics predicted to vote Republican on the basis of their attitudes was about 25 per cent, while that for all those respondents predicted to vote Republican on the basis of their attitudes was 9.7 per cent. Moreover, our rate of error in predicting that Catholics would vote Democratic was unusually low—about seven percentage points below that of all those respondents predicted to vote Democratic on the basis of their attitudes. In the case of these respondents, it would seem that something— and Kennedy's Catholicism is the obvious guess about what that something might be—made the sets of considerations that inclined them toward Kennedy of more than average weight.

The argument just made becomes less convincing, however, when our data are examined further. The above- and below-normal rates of error in predicting the votes of Catholics for Nixon and Kennedy, respectively, do not compel the conclusion that those Catholics into whose decisions the religious issue entered, gave it unusual weight. Counting against that conclusion is the fact that our predictions of the votes of Catholics accorded with their own pre-election expression of preferences for a candidate just about 98 times out of a hundred;[13] this means that *at the time of their pre-election interviews* almost all of these vot-

[13] This figure holds, of course, not for all Catholic voters, but for those Catholic voters (a) whose votes were predicted on the basis of their attitudes, and (b) who expressed a preference for a candidate in their pre-election interview.

ers saw their attitudes as adding up to a preference for the candidate that they would have selected, had they been applying the Voter's Decision Rule.[14] In any event, heavy weighting of the religious issue by Catholics cannot account for any sizable proportion of the errors in our predictions for the 1960 elections. A "normal" rate of error in predicting that Catholics would vote Republican would have reduced our over-all error rate for that election by a trivial amount; a "normal" rate of error in predicting that Catholics would vote Democratic would have *raised* our overall rate of error by about two percentage points.[15]

Proposition (3)—that some respondents changed their decisions in response to considerations arising in their minds after their pre-election interview—could have been ruled out as an explanation of our erroneous predictions, if such predictions were not associated with changes of mind or inclination on the part of respondents. We attempted to test for such an association in two different ways. The first test was an obvious one. Most respondents voted as they had intended to vote at the time of their pre-election interview; others did not vote as they intended; and still others, when first interviewed, did not know, or would not say, how they intended to vote. If changed minds

[14] We thought that differentiated weighting of considerations by respondents in two other groups—Southerners in 1964 and blacks in 1968—might be reflected in the error rates of our predictions for them. The error rate in predictions for Southern respondents voting in the 1964 election turned out to be virtually identical to that for all respondents—9.1 per cent as against 9.3 per cent. The case of black respondents in 1968 is astounding, but it makes no better evidence for unequal weighting of considerations than the case of Catholic voters in 1960. Our predictions for black respondents voting in the election of 1968 were correct in 97 per cent of the cases, and we made no errors at all in predicting that blacks would vote Democratic. This phenomenal accuracy might seem to be evidence that black respondents were tied to the Democrats by a consideration or considerations of more than average weight. That could be true, but two facts count against this interpretation of the data: (1) In fewer than 20 per cent of the cases did the Rule yield a net score of +3 or less for those black respondents predicted to vote for Humphrey; (2) among those black respondents whose votes were predicted from attitudes and who expressed a preference for a candidate in their pre-election interviews, our predictions squared with the preference in 98 per cent of the cases.

[15] Probably the best way to find out the extent to which errors in predictions based on the Rule derive from the unequal weighting of considerations by respondents would be to modify the set of questions described in *f.n.* 4 so that respondents could say whether any particular like or dislike was of unusual or decisive importance. This kind of data, which we would have liked very much to have had, was unavailable to us.

or changed inclinations were the source of many of our errors, the rates of error in predictions for the last two groups of respondents should be higher than those for the first group. Furthermore, a sizable proportion of the respondents whose votes we predicted incorrectly should have been respondents from the last two groups.

The data support these hypotheses. The rates of error in predictions for respondents in the three groups differed dramatically, as Table 7 demonstrates. Moreover, on the average, 73 per cent of our errors in predictions from attitudes occurred in predicting the votes of respondents who did not vote as they had intended to vote or who were undecided at the time of the pre-election interview.[16] In most of the cases in which we made erroneous predictions for respondents who voted as they had intended (93 per cent, on the average), respondents had net scores that fell between ± 3; for these respondents, the net scores derived from the Rule appear to have given us an accurate measure of *firmness* of intent.

A second test for an association between erroneous predictions and opinion changes was only a little less obvious. Let us assume, as seems amply warranted from panel studies of voting, that during a campaign a voter is more likely to stick to his decision (or inclination) about how he will vote than to change it. Let us assume also (1) that, during any given unit of time during a campaign, a voter is less likely to change his mind twice than once, three times than twice, and so on; and (2) that these probabilities that a voter will change his mind increase with increases in the number of units of time elapsed after he has decided how he

Table 7. Rates of Error in Predicting the Votes of Respondents of Various Intentions (Predictions Based on Attitudes of Respondents)

Election of	Respondents Who		
	Voted as Intended (%)	Did Not Vote as Intended (%)	Were Undecided (%)
1952	3.4	84.5	33.0
1956	4.9	83.3	36.0
1960	3.5	62.3	35.8
1964	2.0	84.1	35.6
Mean	3.5	78.6	35.1

[16] The figures from which this average was computed were, for 1952, 73.5 per cent; for 1956, 66 per cent; for 1960, 71.9 per cent; and for 1964, 80.4 per cent.

will vote. Given these conditions, the likelihood that any particular respondent's vote was wrongly predicted should vary with the length of time before election day that he was interviewed, if our prediction squared with his decision at the time he was interviewed.

To test for this hypothetical relationship of time to error, we pooled the data from the four elections and examined the accuracy of our predictions only for those respondents for whom the Rule had yielded net scores of ±3, ±2, and ±1. These were the respondents most likely to have changed their minds, and together they comprised just over 28 per cent of all respondents and 58 per cent of those respondents whose votes were not correctly predicted. Then, working back from election day, we bunched respondents into groups of 50, adding respondents to each such group according to the recency of their interviews, until we arrived at that number. This done, we computed our rate of error in predicting the votes of each of these groups of respondents and the mean number of days before election day that respondents in each group were interviewed.[17]

A simple linear regression of the first of these variables on the second shows them to be strongly related. The equation yielded is:

$$\text{Rate of Error} = 17.4 + .23 \text{ (days before election)}$$

In this formula (and those immediately following) the phrase "days before election" stands for the mean days before election day that a group of fifty respondents was interviewed. The formula describes a relationship that in a statistical sense explains some 28 per cent of the variance in the dependent variable; and, since the standard error of the estimated coefficient is .07, the relationship is statistically significant ($t = 3.15$). Most interesting, perhaps, is the implication of the equation's constant term: Had the interviews of these respondents been conducted on election day, the mean rate of error in predicting their votes would have been 17.4 per cent, not 34.1 per cent, as it actually was.
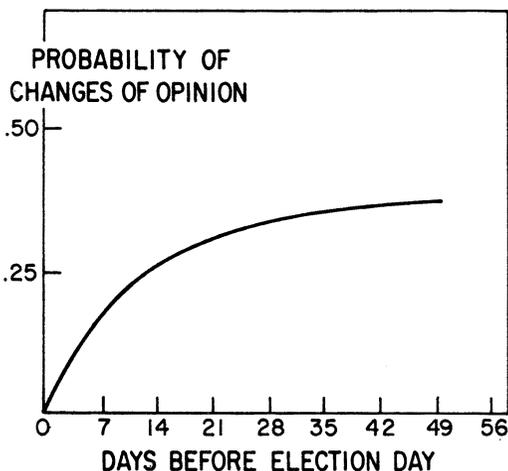
And it is quite possible that this value for

Figure 5. Hypothetical relationship between the likelihood that opinions will change and the time that attitudes toward parties and candidates are expressed.

the constant term is too high. The volume of partisan propaganda is normally much heavier in the last two or three weeks of a presidential campaign than it is earlier.[18] We might therefore suppose the relationship between time and changes of opinion to be like that shown in Figure 5, in which the likelihood of such changes (and thus the error rates of our predictions) at first increases rapidly with increases in the number of days between election day and the time the opinions were expressed, then more slowly. By regressing the rates of error in our predictions for groups of respondents on the logarithm to the base 2 of the mean number of days before election day that the respondents in each group were interviewed, one can see if a curve like that shown in Figure 5 fits the data that entered into the first regression. The equation produced by this new regression is:

$$\text{Rate of Error} = 5.3 + 4.03 \text{ (log}_2 \text{ days before election)}$$

This second equation accounts for as much of the variance in the dependent variable as did the first and yields an equally reliable estimate of the regression coefficient ($R^2 =$

[17] In raw form our data consisted of the number of respondents interviewed on a given date and the number of these whose votes had been predicted incorrectly. If we had treated all respondents interviewed at the same time as the unit of observation, we would have given equal weight to cases involving only one respondent (with a consequent error rate of either 100 per cent or zero per cent) and cases involving many more. It was to avoid this weighting problem that we bunched respondents into equal groups of 50.

[18] Joseph Napolitan, the well-known campaign consultant, observes: "Political time buying on television and radio follows a traditional curve; you usually start about three weeks before the election and build up to a heavy concentration the final week. We've even evolved a reasonable formula: spend one sixth of your money the third week before the election, two sixths the second week, and three sixths the final week" (*The Election Game:* [Doubleday and Co., Inc.: Garden City, N.Y., 1972], pp. 143–144).

.28, $t = 3.14$). The value of the equation's constant term implies that our mean rate of error in predicting the votes of groups of respondents would have been 5.3 per cent (or less than one-sixth of what it was, on the average), if those respondents had been interviewed one day before election day. The equation as a whole implies that, starting from the day before the election, the error rate in predictions derived from the Rule will rise by four percentage points with each doubling of the length of time before election day that respondents are interviewed.

Clearly, we cannot rule out the possibility that many of our erroneous predictions resulted from respondents' changing their opinions in response to considerations not present in their minds at the time of their pre-election interviews. Indeed, given the evidence so far, that is a highly credible explanation of our errors. These may be as strongly related to net scores as they are because respondents whose decisions were close ones were more likely than other respondents to have changed their minds and to have changed them in a direction favorable to the candidate favored in the flow of information in each election (if one candidate had such an advantage). The relationship we found between errors and the total number of attitudes expressed by respondents may reflect a tendency of these respondents to expose themslves to campaign discussion more than other voters did; as one would expect if that were true, our data show a quite strong negative relationship between the number of responses a respondent gave to the questions described in f.n. 4 above and the degree of his political involvement, as measured by the Survey Research Center's involvement scale. The relatively high rates of error associated with predictions of votes inconsistent with partisan identifications may mean that potential apostates were more likely than other voters to have had their initial preferences challenged by their friends and families and, because that was so, were more likely to have changed their minds.

We have already noted that a failure to account adequately for the short-term forces at work in the four elections (that is, issues that were important in particular elections and the appeal of the particular candidates) may be the reason that our predictions of votes for the losing candidates in 1952, 1956, and 1964 were less accurate than those for the winning candidates. In each of these cases we predicted that more respondents would vote for the losing candidate than did (or said they

did). Evidence suggests that the net impact of short-term forces was to the benefit of the Republicans in 1952 and 1956, to the benefit of the Democrats in 1964, and nearly neutral in 1960,[19] hence, or so one would argue, the pattern of error in predictions derived from the Voter's Decision Rule.

But might not some of our errors in predicting votes for the losing candidate have come from respondents having reported giving them too few votes? We think that the answer is "yes" and that such an answer is not inconsistent with what we have just said about the influence of short-term forces in the four elections.

After every presidential election since 1944 (except that in 1960), respondents in the samples drawn by the Survey Research Center have reported voting for the winning candidates by a larger margin than the nation's voters in fact gave to them. Aage Clausen has suggested three ways in which a bias of this sort could have arisen:

(1) Nonvoters who preferred the winning candidates by larger majorities than voters falsely reported that they had voted.

(2) Some respondents who would not otherwise have voted were stimulated to vote by the pre-election interview and in voting gave larger shares of their votes to the winning candidates than other voters did.

(3) Some respondents who voted for the losing candidates falsely reported having voted for the winning candidates.[20]

We may put the first of these hypotheses to one side, since it was refuted—at least for the election of 1964—by Clausen's research. Checking the votes reported in that year against official records, he found that "Wherever we draw the line : . . whether to include just those respondents whose vote report is matched by the official record or to include all respondents whose report is not contradicted by the record, the sample vote division stands at 67–33 in favor of Johnson, a slight fraction less than the over-all sample vote division."[21] Of the two remaining hypotheses, Clausen prefers the second.

It can be stated more fully as follows: Being interviewed in an election survey will interest some respondents in voting who would

[19] See Donald E. Stokes, "Some Dynamic Elements of Contests for the Presidency," *The American Political Science Review* 60 (March, 1966), pp. 19–28.

[20] Aage R. Clausen, "Response Validity: Vote Report," *Public Opinion Quarterly* 32 (Winter, 1968–1969), 602.

[21] *Ibid.*, p. 603.

Table 8. Some Consequences of Adjusting Samples by Removing Those Who May Have Been Stimulated to Vote by Interviewing

Election of	Vote in Population (% Dem.)	Vote in Sample (% Dem.)		Vote Predicted by the Rule (% Dem.)		Difference in Error Rates, by Party[a]		Total Vote Predicted Correctly (%)	
		Adj.	Unadj.	Adj.	Unadj.	Adj.	Unadj.	Adj.	Unadj.
1952	44.6	41.5	41.7	44.3	45.0	8.0	8.0	89.1	87.1
1956	42.2	40.2	40.2	43.9	44.8	10.4	11.1	87.9	85.2
1960	50.1	48.2	49.0	49.2	49.4	2.1	1.4	90.4	88.2
1964	61.3	66.3	67.4	66.3	69.5	2.6	3.7	91.1	90.3

[a] The difference in our rates of error in predicting Democratic and Republican votes by respondents.

not otherwise have been interested, just as canvassing by party workers does. Such respondents will be poorly informed about the election, and any additional information about it that comes to their attention can easily be decisive for their votes. This being so, they will cast their votes disproportionately for the candidate who is favored in the flow of information about the election, if a candidate is so favored. However, because the Democratic party has an initial advantage among those voters who are least interested in politics, a Republican bias in the flow of information, to produce any given advantage in votes, must be greater than a Democratic bias.

If the statements just made are correct and if our earlier statement about the net impact of short-term forces in the four elections is correct also, one would expect:

(1) Nonvoting to be proportionately less among survey respondents than among the population of eligible voters;

(2) the winning candidate's margin of victory in 1952, 1956, and 1964 to be proportionately greater among survey respondents than among the population of eligible voters who voted;

(3) the winning candidate's margin of victory among respondents to be proportionately greater in 1964 than in 1952 and 1956;

(4) errors in predictions derived from the Voter's Decision Rule to be proportionately greater in 1952 and 1956 than in 1964.

All these expectations are borne out in the data.

One nonetheless hesitates to accept the hypothesis; the case in support of it involves too many unproved assumptions. Fortunately, it can be tested further. We know, roughly at least, by how much the turnout of respondents exceeds that of the population of voters—it is by about 10 percentage points. We can

also identify in our data the respondents who according to the hypothesis are most likely to have been stimulated to vote by interviewing: They should have been voters for whom the Voter's Decision Rule yielded net scores of zero or of small absolute values and who expressed few opinions about parties and candidates. What happens if the votes of such respondents do not figure in our calculations?

Table 8 shows some of the things that happen. The division of the vote in the sample moves a bit closer to that in the population in one case (1964) and a bit farther away in two cases (1952 and 1960). The division of the vote predicted by the Rule moves closer to the division of the vote both in the sample and the population in three cases, further away from that in the population in one (1960). In two cases (1956 and 1964) our rates of error in predicting Republican votes become more like our rates of error in predicting Democratic votes, and our over-all rate of error is reduced in every case. It does appear that an interview effect on the turnout of respondents may have increased our rates of error in predicting votes in the four elections, although not by a great deal.[22]

[22] A more precise description of the procedure we followed in adjusting samples is in order here. In each case the number of respondents removed from our samples of voters was equal to 10 per cent of the corresponding population sample. Those respondents removed all had net scores between ±4 and had expressed no more than four likes and dislikes of parties and candidates. Because the number of respondents to be removed was in every case fewer than the total number of respondents with these scores, respondents were removed from the sample in this order: (0), (0); (±0), (0); (±0), (2); (±0), (4); (±1), (1); (±1), (3); (±2), (4); (±3), (3); (±4), (4); where (±0), (0) indicates respondents with net scores of ±0 who expressed no likes or dislikes of parties and candidates, (±0), (2) indicates respondents with net scores of (±0) who expressed two likes or dislikes of parties and candidates, etc. When the total number of respondents removed would have been too large if we

Clausen's third suggestion—that respondents in postelection surveys may tend falsely to report having voted for winning candidates—remains to be considered as a possible explanation of our over-prediction of votes for the losing candidates in 1952, 1956, and 1964. If the suggestion is correct, how might this postelection bandwagon effect reveal itself in our data? Our best efforts to think about this question led only to the following line of thought: Voters may forget how they have voted; having done so, and as a part of that general movement toward consensus that tends to follow presidential elections, they later "remember," if asked, having voted for the winner.[23] If such forgetfulness leads voters to misreport their votes, the amount of such misreporting should increase as the time intervening between the election and the postelection interview increases. Therefore, if one can correctly predict how any given respondent will vote, the chance that the prediction will be "falsified" by a misreported vote will increase directly with the time intervening between the election and the respondent's postelection interview.

Whatever one's attitude toward the notions just advanced, it is a fact that a strong association exists between the dates of the postelection interviews in the surveys of the elections of 1956, 1960, and 1964, and our rates of error in predicting how respondents voted in those elections. In testing for this association, we pooled data for these three elections only (the precise dates of postelection interviews in the survey of 1952 were unavailable), but otherwise we followed a procedure precisely comparable to that we adopted in examining the relationship between the times of pre-election interviews and the rates of error in our predictions. In this instance a regression of error on time yielded this equation:

$$\text{Rate of Error} = 11.3 + 3.4 \ (\log_2 \text{ days after election})$$

This relationship easily passes tests of statistical significance ($t = 2.42$) and accounts for some 32 per cent of the variance in the de-

had removed all those in the last set of respondents to figure in our calculations, we kept within bounds by taking a smaller number proportionately from respondents with plus and minus net scores.

[23] Politically sophisticated readers may find it difficult to believe that anyone could forget how he voted for President. If so, they should try to recall for sure how they voted for freeholder or registrar of deeds at the last election; for some voters, a vote for president may carry with it no greater emotional involvement than the sophisticate's vote for one of these lesser officers of government.

pendent variable. The constant term implies that our rate of error in predicting the votes of the respondents concerned would have been less than half of what it actually was, if postelection interviews had all been conducted one day after election day. (In this test, as in the earlier ones that examined the relationship of times of interviews to error rates, we considered only those respondents whose votes were predicted from attitudes and for whom the application of the Rule produced net scores between ±3.)

Although the evidence bearing on our errors in prediction has necessarily been indirect, it points rather clearly to these conclusions: (1) Unequal weighting of considerations by respondents; subconscious considerations; conscious but unarticulated considerations; and the stimulation of voting by surveys cannot be ruled out as sources of error. As of now, however, the case for regarding any of them as major sources of error is not a strong one. (2) There is a good case for thinking that delay in administering postelection interviews is a significant source of erroneous predictions. (3) Early pre-election interviewing was probably the most important source of errors in predictions derived from the Rule; pre-election interviewing on or near election day should reduce the error rate of such predictions to something like 5 or 6 per cent. One is led to this view by the high correlation of our predictions with voting intentions; our very low rates of error in predicting the votes of respondents who voted as they intended; the strong association of errors in prediction with low net scores, changed intentions, and indecision; the apparently great sensitivity to short-term electoral forces of persons with low net scores; and the strong (and perhaps curvilinear) relationship between the dates of pre-election interviews and erroneous predictions.

Findings: The Presidential Election of 1968

Since the 1968 election presents some problems for analysis that elections involving only two candidates do not, we will discuss our results for that election separately. A few words will suffice to describe the most important of these. The Voter's Decision Rule yielded predictions for more than 99 per cent of those respondents who voted. An unusually large number of these predictions were for respondents whose attitudes gave no advantage to any candidate (7.8 per cent of those respondents who voted) and whose votes were therefore predicted from their partisan identifications. Our predictions were correct for 80.9

Table 9. Results in Predicting the Votes of Individual Voters in Accordance with the Voter's Decision Rule, from Partisan Identifications, and from Stated Intentions (1968 Election)

Basis of Prediction	% of Cases in which Data Permit a Prediction	% of Cases in which Votes were Predicted Correctly	Accuracy of Predictions[a]
The Voter's Decision Rule	99.1	80.9	81.6
Stated Intentions	86.6	77.0	89.0
Party Identification	91.6	68.9	75.2

[a] Correct predictions as a percentage of all predictions.

per cent of the respondents who voted. This figure is about four percentage points below the comparable one for 1956, the two-candidate election for which the rate of error in our predictions derived from the Rule was highest.

Even so, relative to the alternatives we have been discussing, the Rule was a good basis for predicting votes in 1968. How predictions for individual voters derived from the Rule compare with those based on voters' declared intentions and their partisan identifications is shown in Table 9.

Table 10 gives our results in predicting the division of the major party vote in 1968.

Neither set of results indicates any need for revising our earlier assessment of the relative merits of the three bases for prediction.

One reason for the relatively high rate of error in our predictions for 1968 is plain: An unusually large number of respondents changed their minds about how they would vote in the course of the campaign. Almost 9 per cent did, more than twice the number who had changed their minds in 1964.

A second reason for a relatively large number of errors was the candidacy of George Wallace. As one might expect, given his candidacy, our rate of error in predicting the votes of residual partisans was high—almost 44 per cent; this figure is more than double the average figure for the four preceding elections. In predictions from attitudes, Wallace's candidacy made us prone to error both coming and going: Some 44 per cent of the respondents predicted to vote for him did not, and

some 49 per cent of his vote came from respondents predicted to vote against him.

It seemed possible that a part of the difficulty in predicting votes for Wallace stemmed from the treatment of respondents' comments, pro and con, on the Democratic party. Statements favorable to the Democratic party were counted as favorable to Humphrey but not to Wallace; statements critical of the party were counted as unfavorable to Humphrey but not to Wallace. If many voters saw Wallace as a Democrat, this treatment of comments about the Democratic party was clearly the wrong one. As a test, we computed the error rate of predictions for Southern voters, those voters most likely to have linked Wallace to the Democrats. It was not very different from that for non-Southerners (19.1 as compared to 18.3). The ambiguity of Wallace's partisanship does not appear to have been an important source of trouble.

That voters' expectations regarding the outcome of the election did not figure in predictions derived from the Voter's Decision Rule does seem to have been a major source of error. One would expect neglect of expectations to be a source of error in a three-candidate race. In an election involving two candidates it makes no sense to vote for one's second choice because one expects one's first choice to lose; in a three-candidate election it may. In the event, we were decidedly more likely to be in error in predicting a vote for Wallace if the respondent thought Wallace would lose than if that was not the case. Of those re-

Table 10. Results in Predicting the Division of the Major Party Vote in Accordance with the Voter's Decision Rule, from Partisan Identifications and from Stated Intentions (1968 Election)

	Nixon	Humphrey	Wallace
Vote in Population (%)	43.4	42.7	13.5
Vote in Sample (%)	47.8	40.9	11.1
Vote Predicted From:			
The Voter's Decision Rule (%)	46.2	41.9	11.9
Stated Intentions (%)	48.9	38.6	12.5
Party Identification (%)	40.7	59.3	0.0

spondents predicted to vote for Wallace who thought he would win, about 75 per cent voted for him. Of those respondents predicted for Wallace who thought he would lose, only 47 per cent voted for him. Fear of wasting one's vote thus appears to have been a significant influence on voting in 1968.

Concluding Observations

If one's aim is to make the maximum number of correct predictions of voters' choices, the method we have used gives the best results we know of, with the possible exception of those associated with the very similar "decision rule model" proposed by Brody and Page.[24] Moreover, the results we have obtained by applying the Rule could be improved upon with only a minor adjustment of procedures and at no cost to the integrity of the theory of voting involved. Interviewing respondents at times closer to election day and adjusting samples to remove from consideration those who may have been stimulated to vote by interviewing should increase the accuracy of predictions. So should allowances for the strength and direction of short-term electoral forces, for the higher rates of error associated with predicting votes inconsistent with respondent's partisan identifications, and (in elections involving more than two candidates) for the expectations of respondents regarding the outcome of the election.

Our objective, however, has not been to make accurate predictions for their own sake; we have been interested in accurate prediction because it is one important test of explanatory value. Explanation of voters' choices in terms of the rule meets this test rather well. The respondents of five independent samples of the

[24] Working with data from postelection surveys of the 1968 election, Brody and Page attempted to predict how respondents had voted from their responses to a request to rate each of the presidential candidates on a scale ranging from 0 (very unfavorable) to 100 (very favorable). Predictions were made in terms of a "decision rule model," which postulated that "if a voter favors one candidate even slightly more than others, he will vote for that candidate" and (an amendment) "party identifications break ties." When this rule was applied to respondents' ratings of candidates, respondents' votes were correctly predicted in 90 per cent of the cases. These results are not directly comparable to ours, since our predictions were based on data taken from pre-election surveys. The conception of voting arrived at by Brody and Page, however, is obviously quite similar to our own. They have also suggested that their decision rules might be applied "to candidate evaluations in previous elections—computed from the S.R.C. open-ended items, lacking 'thermometer' ratings. . . ." That, of course, is very nearly what we have done. Brody and Page, "Indifference, Alienation and Rational Decisions."

national electorate voted in the great majority *as if* they were applying the Rule. There were an appreciable number who did not vote that way and thus falsified our predictions, but some part of these errors may be reasonably assigned to causes unconnected with the use or nonuse of any decision rule by voters—specifically, to respondents' misreporting of their votes and to random inaccuracies in the data. More importantly, the greater part of our errors were of the sort one would expect, were voters applying the Rule. They occurred when, from the respondent's point of view, how to vote was a close question. They occurred also when time and circumstance were such that the respondent was likely, before he voted, to have been exposed to considerations he had not taken into account at the time he was interviewed.

How well does the explanation of voters' choices that we have proposed meet the other tests suggested in our introductory remarks? A case can be made that such explanation is spurious, because the attitudes to which we have applied the Rule are mere rationalizations of decisions to vote in a particular way and are thus without causal significance.

In rejoinder to this line of argument Stokes, Campbell and Miller make one point very well: Among the responses of voters on which we

. . . attitudes toward the candidates and issues have sometimes been treated simply as rationalizations of preferences fixed by long-term party allegiances or by social characteristics such as ethnic or religious memberships, socio-economic status, etc. Both a person's standing party loyalties and his place in the social structure *do* have profound consequences for his voting behavior. . . . But it is quite clear that fixed party loyalties and sociological characteristics cannot account fully for the vote. In particular, neither of these factors, relatively inert through time, can account for the short-term fluctuations in the division of the vote which are of such great significance in a two-party system . . . the Republican proportion of the two-party vote increased between 1948 and 1952 among strong Republicans, weak Republicans, Independents, weak Democrats, and strong Democrats alike. Clearly neither social characteristics nor fixed party loyalties can account for the general movement toward the Republican standard between these two years. But the movement can be explained quite easily if we accord genuine motivational significance to attitudes toward the candidates and issues, and observe that the popular response to the Republican candidate and to the configuration of issues salient in the campaign was far more favorable to the Republicans in 1952 than in 1948.[25]

[25] Donald E. Stokes, Angus Campbell, and Warren E. Miller, "Components of Electoral Decision," pp. 368–369. Emphasis in the original.

based our predictions were quite explicit statements by voters that their party loyalties or economic and other interests inclined them to vote in a particular way; without doing violence to the language, such statements can hardly be called "rationalizations" of "long-term party allegiances" or "social characteristics." It is of course impossible to prove that responses not describable in these terms were not rationalizations of *something,* but it is clear that the "something" is not what one might expect it to be—party loyalty or interests associated with the voter's position in the social and economic order.

Our own research suggests some additional points. First, about two-thirds of the respondents in the surveys with which we worked expressed attitudes that ran *counter* to their voting intentions or their eventual decisions or both. Normally, that is not what people do when giving good "reasons" for a decision made on other grounds or, to make the point in another way, it is not the sort of behavior to which the term, "rationalization," is usually applied.[26] Second, when respondents expressed conflicting attitudes, these were accompanied by the kind of behavior one would expect if such attitudes actually counted in the making of a decision: The more nearly equal were the net number of favorable attitudes toward candidates and parties expressed by a respondent, the greater was the likelihood that he was undecided, or that he cast his vote against the candidate that he had intended to vote for, or that he did not vote at all. If the attitudes expressed were without motivational import, would there be such a nice association as holds in fact between the respondent's report of his behavior and the balance of his comments, pro and con, about candidates and parties? Is it likely that respondents, with no forewarning of the questions they would be asked, could produce a pattern of fabricated "reasons" so consistent in detail with the preferences and behavior they report?

There is another line of argument that might lead one to dismiss explanation of voters' choices in terms of the Rule as spurious. The gist of this argument can be put as follows: The attitudes on which our predictions are based, aggregated for each voter as we have

aggregated them, simply *measure* intentions to vote in a particular way. Because so much information is summarized in the measure, it is a good measure, giving a quite accurate indication of how a voter intends to vote. It is as if we dipped a thermometer into a solution several times and averaged the results, as opposed to taking but one reading.

We think that the appeal of this argument derives mainly from a confusing use of words. One can legitimately speak of a response to the question, "How do you intend to vote," as a "measure" of the respondent's true intention. One can also call the net scores derived from the Rule "measures" of the firmness and direction of intent, as we have at an earlier point in this paper. These data, however, are not "measures" in the same sense of the word. In the sense of the word "measure" as it is used in the second sentence of this paragraph, the responses which underlie our predictions measure, not voters' true intentions, but voters' true likes and dislikes of parties and candidates; these responses measure intentions only in the sense that they are highly reliable *indicators* of intentions. Why are they? Why do the answers to one set of questions, aggregated in a particular way, indicate so accurately the answers to a quite different question? Presumably, because a person's recital of his likes and dislikes regarding objects of choice will indicate what he intends to choose, *provided* that his likes and dislikes are actually motivating him, that the procedure he uses to translate his likes and dislikes into choices is known, and that he is not lying. If these three conditions hold, however, explanation of respondents' votes in terms of net scores derived from the Rule is not spurious and thus no substantial point is at issue.

Is the Voter's Decision Rule a believable account of the way voters weigh the considerations that figure in their choices of candidates? To our knowledge, there is no body of theory about voting or the making of decisions which in any strict sense would lead one to expect voters to apply the Rule in deciding how to vote. Still, the notion that they do squares quite well with certain general, and credible, ideas. It is reasonable to think that voting decisions follow the application of some kind of decision rule to a set of considerations and to suppose that most voters, faced with the same kind of decision, may apply the same rule. That, for instance, is essentially what Converse argues when he observes that "gross, simple, group-oriented cues" will play a major role in the voting decisions of the politically un-

[26] That term can of course be construed differently. One may speak of a person as "rationalizing" if, when explaining or justifying an action, he cites only such *actual* motives as are socially acceptable—he tells the truth, but not the whole truth. To call the responses at issue here "rationalizations" in this sense, however, is to admit that they are expressions of genuine motivating attitudes.

sophisticated majority of voters.[27] It is an intuitively acceptable notion also that a voter's decision rule should involve a comparison of the utilities to be derived from alternative acts of choice—or, to put it more simply, that it should involve a comparison of the decision-maker's likes and dislikes with regard to objects of choice. Finally, most voters do not appear to be consciously aware of the application of *any* decision rule in their choices of candidates (and in the making of many other sorts of decisions); it is therefore not remarkable that voters, if they apply the Rule, do so unconsciously.

What makes it most difficult to accept the Voter's Decision Rule as a description of something real is its *crudity,* its assignment of equal weight to all the considerations that may enter into any given voter's choices. This aspect of the Rule seems less unrealistic if we note two points: First, it was the respondents themselves who volunteered the likes and dislikes that we treated as considerations in their voting choices. It may be that they simply did not report likes or dislikes that did not attain to a certain threshold of importance. Second, it may be that the crude formula of the Rule is applied by voters only if and when choices of candidates seem *relatively inconsequential.* By "relatively inconsequential," we do not mean to suggest that voting decisions are not of great importance in the aggregate or that they are utterly trivial to most voters, individually. We do mean to suggest that few, if any, voters would regret nearly so keenly and persistently a choice at the polls that they perceived to have been mistaken as they would a wrong (to them) choice of jobs or colleges or automobiles. Two factors, at least, tend to trivialize voting in the eyes of voters: Whatever the voter does, it will almost certainly make no difference to the outcome of an election in any sizable constituency; and candidates—actually or in the view of the voter—frequently fail to take contrasting stands on issues of importance. Under these circumstances one would expect the voter to use some convenient, simple formula for deciding how to vote, one that would conserve his time and energy. The Rule is one possible formula—or mental "program" —that might serve this purpose.

The cautious reader will not find conclusive the case we have just made for regarding the Rule as the decision rule that most voters ac-

tually use. While we do not think it conclusive either, we do think that the case for that conclusion is good enough to warrant discussing some of its implications.

The view of voting suggested by our work has some immediate implications for those who interpret elections. The political historian wants to know what attitudes on the part of voters were decisive in particular elections. If the Rule correctly describes the manner in which most voters decide how to vote, he could in principle obtain this information from surveys taken close to election day. Historians and other analysts alike would benefit greatly from repeated surveys of opinion during the course of a campaign for, with the Rule as a guide to interpreting the data they yield, one should be able to show the impact of campaigning on the attitudes and perceptions of the electorate—and through these on voting—in great detail. Survey data could also give analysts indices that would allow them to differentiate elections in meaningful ways. For example, the median voter's vote will always be the last vote, or the last vote but one, that a winning candidate must necessarily receive. Thus, the net score of the median voter would be one sort of measure of how close a thing an election was in terms of the attitudes of marginal voters. Analysis of this kind could be greatly extended. Measures of the political sophistication of voters with net scores at or near the median should show with precision the roles in elections of the Independent of classical conception and of the ill-informed and indifferent voter. The median score of a candidate's supporters would give an indication of the strength and intensity of his support. And so on.

Whether the Rule is used by most voters has important implications for the practice of politics. It is important to be clear as to what these implications are. The research reported above gives political activists no better method of predicting *whether* voters will vote than they have now, though it perhaps points the way toward one. Neither does that research tell one how a fact or an issue comes to be a consideration in voting, nor how they can be made such. If voters do vote in accordance with the Voter's Decision Rule, however, candidates in principle should be able, with an accuracy heretofore not possible, to identify uncommitted or weakly committed voters and to find out what *specific* influences are bearing on their votes. This information would not surely yield an efficient campaign strategy, but it would be a better basis for developing one

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[27] Philip E. Converse, "The Nature of Belief Systems in Mass Publics," p. 249, in *Ideology and Discontent,* ed. David E. Apter (The Free Press: Glencoe, 1964).

than any information candidates can now obtain.

Thoughtful people will not greet the prospect of more efficient campaign strategies without uneasiness. This is an understandable reaction but one that is hard to justify. In theory, if not always in practice, elections are designed to give weight to the opinions of the electorate in the choice of political leaders and in the conduct of governmental affairs. If the account of voting suggested by our research should turn out to be the correct one, the elective official should be able to learn more accurately than he now can, why the electorate prefers him or does not prefer him to a challenger or challengers; he could learn also what voters hope to accomplish by casting their votes for him. Given the goal of elections, if one accepts that goal, it would be against common sense to argue that officials should lack such information, for without it, decoding the "messages" that voters are urged to send must necessarily involve much room for error. The same kind of information, moreover, would be as useful to the statesman as to the politician, because it is necessary for informed assessment of the degree to which elections work as we might want them to work.

The correctness or incorrectness of our account of voting has consequences of importance for one's view of the American electorate. The evidence of a strong relationship between nonvoting and the net scores derived from the Rule supports the view of Schattschneider and others that nonvoting to a considerable extent reflects the nonvoter's indifference to the choices he perceives to be offered him in elections.[28] Our data suggest also that voters cluster in the greatest numbers around a "center" of sorts, as Scammon and Wattenberg would have it, and that these centrist voters have decided our recent presidential elections. It is not necessarily true, however, as Scammon and Wattenberg would have it also, that centrism is to be equated with any particular brand of public policy, now or in the recent past. Nor, perhaps, are the dark portraits of "swing" voters that emerge from some of the best studies of voting quite so true to life as many have thought. Our research has produced some evidence supporting Clausen's view that the interviewing done in connection with election surveys may stimulate some respondents to vote who would not vote otherwise. If interviewing has that result, and if we have identified correctly the voters

[28] Cf Brody and Page.

affected, it follows that analyses of survey data unadjusted to take account of the phenomenon may exaggerate the electoral importance of voters who are ill-informed about public affairs and who pay little attention to them.

Students of politics occasionally despair of the "irrationality" of voters or treat it as a fact that the sophisticate must accept. Our results give no cause for either reaction. On the contrary, most voters appear to be conscious of the considerations they bring to voting, and the substance of such considerations seems often to involve highly appropriate concerns about public policy, the qualifications of candidates, and the records of political parties. It is true that many voters vote in ignorance of important matters, and the decision rule they apply may be a crude one. Neither of these things constitutes "irrationality." Both most probably reflect the meager incentives that our mass democracy offers to induce individual voters to expend time and energy in learning and thinking about the public business. If that is so, both conditions are in principle remediable.

Appendix
Predicting the Votes of Individual Voters in Accordance with the Voter's Decision Rule.
Here we will describe in detail the procedure that we used in predicting respondents' votes on the basis of the Voter's Decision Rule. The easiest and clearest way to do so, perhaps, is to review the application of the Rule to the data, step by step.

(1) *The voter canvasses his likes and dislikes of the leading candidates and major parties involved in an election.*

Any respondent who said that he had voted and said how he had voted was counted as a voter. Thus, we treated as voters all respondents who said that they had voted for a major party candidate or for a minor party candidate, who said they had voted for a candidate who was not running (*e.g.,* Lyndon Johnson in 1968), and who said that they had voted for a party but did not name a candidate. We did not treat as voters those respondents who refused to say how they had voted or who said they did not remember how they had voted (except as indicated in Figures 1 and 2). The sample of voters in the survey of the 1960 election was a weighted sample; the others we worked with were not.

We regarded respondents' likes and dislikes of parties and candidates to be given by respondents' responses to the set of questions

described in *f.n.* 4, as these responses were coded at the Survey Research Center. As has been noted already, up to five responses to each question were coded for each respondent; and, for any given respondent, only those responses that differed from each other in content were coded.

(2) *Weighing each like and dislike equally, the voter votes for the candidate toward whom he has the greatest net number of favorable attitudes, if there is such a candidate.* (Yields "predictions from attitudes.")

In analyzing the two-candidate elections of 1952, 1956, 1960, and 1964 we determined the net number of favorable attitudes for the Democratic candidate by subtracting from the number of favorable attitudes toward the Democratic party and its candidate (D+) the number of unfavorable attitudes toward the Democratic party and its candidate (D-); the net number of favorable attitudes toward the Democratic candidate is (D+ − D-). Similarly, the net number of favorable attitudes toward the Republican candidate is (R+ − R-). The voter compares these two net numbers to make his decision. In the two-candidate elections, it is possible to compute a net score [(D+ − D-) − (R+ − R-)]; a positive net score means that the Rule yields a decision to vote for the Democratic candidate, a negative net score yields a decision for the Republican, and a zero score yields no "prediction from attitudes."

Those familiar with the work of Campbell and his associates will note that the method we used to compute net scores in these two-candidate elections is like that used in *The American Voter* to arrive at a respondent's scores on particular "components of electoral decision." In the words of Stokes, Campbell, and Miller, "In scoring a person's attitude toward a given object [of national politics] we have merely subtracted the number of his pro-Republican or anti-Democratic references to the object from the number of his anti-Republican or pro-Democratic references" (p. 370). This procedure—in our terms, (D+ + R-) − (R+ + D-)—is equivalent to (D+ − D-) − (R+ − R-).

In predicting respondents' votes in the election of 1968, we counted, and then classified, respondents' likes and dislikes of parties and

candidates as D+ (favorable to Hubert Humphrey); D- (unfavorable to Humphrey); R+ (favorable to Richard Nixon); R- (unfavorable to Nixon); W+ (favorable to George Wallace); and W- (unfavorable to Wallace). For any given respondent we took the net number of favorable attitudes toward each of the candidates to be given by (D+ − D-) for Humphrey; (R+ − R-) for Nixon, and (W+ − W-) for Wallace. The respondent was predicted to vote for the candidate toward whom he had the greatest net number of favorable attitudes. If there were no such candidate, no prediction from attitudes was made. In the case of elections with more than two candidates, the concept of "net score" is ambiguous and we have not had occasion to use it.

(3) *If no candidate has such an advantage, the voter votes consistently with his party affiliation, if he has such.* (Yields "Predictions from residual partisanship.")

In the surveys with which we worked, we treated all respondents classified as "strong Democrats," "weak Democrats," or "independent Democrats" as affiliated with the Democratic Party. All respondents classified as "strong Republicans," "weak Republicans," or "independent Republicans" we treated as having an affiliation with the Republican Party.

(4) *If his attitudes do not incline him toward one candidate more than toward another and if he does not identify with one of the major parties, the voter reaches a null decision.* (Yields "null decisions.")

Respondents may have given no advantage to a candidate on the basis of attitudes if there was no candidate with the greatest net number of favorable attitudes or if the respondents refused to cite likes and dislikes of parties and candidates in the survey. Respondents may not have identified with one of the major parties if they were independents leaning toward neither party or if they refused to answer questions about their party identification. In all cases in which predictions could be made neither on the basis of attitudes nor on the basis of residual partisanship, the Rule yields a null decision.