RATIONALITY AND VOTING: A DOWNSIAN ANALYSIS OF THE 1972 ELECTION

KENNETH J. MEIER
University of Oklahoma

A CENTRAL question in the study of voting behavior is the question of voter rationality.[1] If voters make rational candidate selections, then elections may serve as a control device to insure responsive public officials. Empirical research on voter rationality, however, reaches several different conclusions. Some studies[2] find that voters fail to meet standards of rationality while others find most voters capable of rational vote choice.[3] Underlying these research differences (other than a focus on different elections), are different perceptions of the type of behavior necessary to be considered rational. Some analysts[4] set high standards to determine whether or not a voter is rational. These proponents of *synoptic rationality*[5] require a voter to be interested in politics, well informed on the issues, have clear guiding principles on which to base the vote decision, and rationally (a means-ends calculus) select the best candidate in terms of these guiding principles. Under this conception of rationality, a rational vote maximizes the desired output (the voter's utility) in terms of the voter's preferences while using all possible information. In most cases these analysts find that voters lack the cognitive abilities to meet this standard.

Other students of electoral behavior argue that the investment of effort required by synoptic rationality may not, in fact, be rational.[6] If the costs involved in making a synoptic decision exceed the difference in benefits between the top two alternatives (candidates), then expending the time and resources necessary to make a synoptic decision would be a poor investment.

NOTE: The data presented here were gathered under National Science Foundation Grant GS-35408, Robert D. McClure and Thomas E. Patterson, principal investigators. I would like to thank Robert deVoursney, Philip L. Beardsley, Samuel Kirkpatrick, and two anonymous reviewers of this journal for comments on earlier drafts of this paper.

[1] John H. Kessel, "Comment: The Issues in Issue Voting," *American Political Science Review* 66 (June 1972): 459-65, provides a comprehensive list of issue voting studies; many of these studies implicitly deal with rationality. Additional studies since that time include Norman Frohlich, Joe A. Openheimer, Jeffrey Smith, and Oran R. Young, "A Test of Downsian Voter Rationality," *American Political Science Review* 72 (March 1978): 178-97; John E. Jackson, "Issues, Party Choices, and Presidential Votes," *American Journal of Political Science* 19 (May 1975): 161-86; Thomas E. Patterson, Robert D. McClure, and Kenneth J. Meier, "Issue Voting and Voter Rationality," paper presented at the Annual Meeting of the American Political Science Association, September 1974, Chicago, Illinois. See also the entire issue of *American Politics Quarterly* 3 (July 1975) with articles by Richard J. Trilling; A. J. Mackelprang, Bernard Grofman, and N. Keith Thomas; Samuel A. Kirkpatrick; Eugene Declercq, Thomas L. Hurley, and Norman R. Luttbeg; and Samuel A. Kirkpatrick, William Lyons, and Michael R. Fitzgerald.

[2] Two good examples are Bernard R. Berelson, Paul L. Lazarsfeld, and William N. McPhee, *Voting* (Chicago: University of Chicago Press, 1954), especially the final chapter, and Angus Campbell, Philip E. Converse, Warren E. Miller, and Donald Stokes, *The American Voter* (New York: Wiley, 1960).

[3] See Gerald M. Pomper, "From Confusion to Clarity," *American Political Science Review* 66 (June 1972): 415-28; Richard W. Boyd, "Popular Control of Public Policy," *American Political Science Review* 66 (June 1972): 429-48; Stanley Kelley, Jr. and Thad W. Mirer, "The Simple Act of Voting," *American Political Science Review* 68 (June 1974): 572-91; David RePass, "Issue Salience and Party Choice," *American Political Science Review* 65 (June 1971): 389-400.

[4] See Berelson et al., *Voting*, pp. 307ff; Campbell et al., *The American Voter*, pp. 543ff.

[5] The terms "synoptic" and "incremental" are from David Braybrooke and Charles E. Lindblom, *A Strategy for Decision* (New York: The Free Press, 1963). Although voter decisions resemble incremental decisions, the term "limited rationality" is probably a better description.

[6] Frohlich, Openheimer, Smith, and Young, "A Test of Downsian . . .," p. 180.

Anthony Downs further discounts the value of synoptic decisions by arguing that the difference in utility between the two alternatives must be discounted by the probability that a person's vote will influence the election results.[7] In an American presidential election where the voter casts one vote in 70 million, the probability of influencing the outcome is miniscule. Given this small probability of influencing who wins the election, almost any investment in campaign information is irrational.

If synoptic decision-making is not rational for voters, what is? According to some students of decision theory, a form of incremental or limited rationality may be more appropriate.[8] Limited rationality differs from synoptic in that limited rationality does not require all alternatives to be evaluated, does not require clear guiding principles, and limits the information necessary to reach a decision. The decision-maker satisfies, i.e., selects an alternative and determines if it is satisfactory.[9] If it is, the decision-maker remains with the selection. If it is not, the decision-maker makes a limited search for a new alternative that will be satisfactory. In the area of voting behavior one conscious use of limited rationality is Kelley and Mirer who predict vote choice by summing the voter's likes and dislikes about candidates and parties.[10]

This research is an attempt to apply the concept of incremental or limited rationality to voting behavior using Downs' *An Economic Theory of Democracy*.[11] First, a portion of Downs' theory will be presented in modified form to fit U.S. presidential elections. Second, this paper will argue that Downs presents a voter who decides using a limited rationality yet incorporates sufficient information about politics to make the decision appear rational to outside observers. Third, Downs' theory of vote choice will be tested in an empirical analysis of the 1972 election. Fourth, through the use of panel data and analysis, this paper will determine if the voter's decision process actually follows the limited rational model or if the empirical relationships are the result of *post hoc* rationalizations.

Downs' Theory and Concepts

A brief discussion of Downs' *An Economic Theory of Democracy* will reveal that his theory begins in the traditional pattern of synoptic rationality but evolves into one accepting a limited rationality. Central to Downs' theory is the concept of utility. Although Downs does not discuss the formation of utilities, their formation is straightforward. Rational man is assumed to have a series of values (V_i) which he can rank in order of preference and information concerning the probability of each value being attained if certain conditions exist (P_i). The expected utility of any action ($E(U_t^a)$) is the sum of the products of all values and their respective probabilities:

$$E(U_t^a) = \sum_{i=1}^{N} P_i V_i$$

Where t is the time span,
a is the existing conditions, and
N is the number of values.

Since deciding how to vote, where real preferences exist, is no different from making any other type of rational decision, some utility must entice the voter to vote for one candidate or the other. Not all of a voter's utility need be calculated

---

[7] Anthony Downs, *An Economic Theory of Democracy* (New York: Harper and Row, 1957), pp. 40ff.

[8] Braybrooke and Lindblom, *A Strategy of Decision*.

[9] Herbert Simon, *Administrative Behavior* (New York: The Free Press, 1976).

[10] Kelley and Mirer, "The Simple Act of Voting."

[11] Other applications of Downs include Frolich, Openheimer, Smith, and Young; and William R. Shaffer, *Computer Simulations of Voting Behavior* (New York: Oxford University Press, 1972).

in economic dollar terms; many voters probably received moral satisfaction from such policies as the withdrawal of troops from Vietnam, comprehensive energy proposals, or new approaches to urban policy. In fact, all utilities may be measurable only by indirect means such as survey scales.

Rational political man, according to Downs, votes on expected *party* differential, i.e., his vote is based on which party will generate the greater amount of personal utility over the next electoral interval:[12]

$$V = E(U^a_{t_1}) - E(U^b_{t_1})$$

Where V signifies the respondent's vote,
a is the incumbent political party,
b is the opposition party
t_1 is the next electoral term.

A comparison of future utilities made by examining platforms, however, is not totally rational since platforms may contain distortions calculated to attract votes, and since outside forces often force an official to deviate from platform positions after the election. To avoid basing a decision on two hypothetical utilities which incorporate a great deal of uncertainty, thus increasing decision costs, the voter seeks certainty. To vote with some certainty, the voter must have other indicators of the course of action a party would take and the resulting utility. Since rational parties have continuity, i.e., they support the same general policies over time, the voter can estimate the incumbent party's expected future utility, $E(U^a_{t_1})$, by the utility he received during the last electoral interval, $(U^a_{t_o})$. More simply expressed, the voter estimates the future utility of "a" in office by "a's" past performance in office.

Having $U^a_{t_o}$ as an estimate of $E(U^a_{t_1})$, one cannot compare $U^a_{t_o}$ with $E(U^b_{t_1})$ to determine how a respondent will vote since it would be irrational to compare two utilities under different conditions. To standardize the two measures, one must predict the utility the voter would have received the past four years if party b were in office, $E(U^b_{t_o})$. This comparison is more rational in Downs' opinion than the prior one since it is based on one actual utility and one hypothetical utility rather than two hypothetical utilities.

Since a voter is choosing a future government, Downs contends only an irrational voter would *totally* ignore the future. To incorporate some future orientation, the expected party differential is modified by two other indicators of future utility. The first is a trend factor for the incumbent party; if the amount of utility has increased recently, then a voter will be more likely to support the in-party since he assumes the trend will continue. If the trend is toward decreasing utility, then a voter would rationally choose the out-party if the expected utility differential is close.

A second future modifying factor enters if, and only if, the expected party differential is zero or close to zero. (The model assumes that some threshold of expected utility must be exceeded before the voter can be enticed to vote at all.) To increase the rationality of his decision, a voter seeks another indicator of the out-party's future performance, the utility he/she received the last time the out-party was in office.[13] If expected party differential is still zero, the citizen will abstain from voting for either party.

Downs' model of voting behavior needs to be modified slightly to fit American presidential elections. Unlike the politics of many other western nations, U.S. politics is candidate-oriented with individual candidates running

[12] The following argument can be found in its entirety in Downs, pp. 38-41, 97.

[13] Downs, p. 42-43. The performance of the out-party the last time it held office as an indicator of future utility assumes, of course, party consistency. This assumption is questionable if candidates can run independently of their parties. The 1972 election is particularly important in this regard since one candidate, McGovern, ran against the party establishment.

independently of their party. The influence of candidates can be incorporated into Downs' model by using candidate differentials rather than party differentials. This substitution is consistent with the relative decline of partisanship in presidential elections and with other attempts to operationalize Downs in U.S. settings.[14]

Downs' theory of vote choice has several elements of limited rationality despite its reliance on utility calculations. The voter bases his/her decision on candidate's past performance in office. In effect, this evaluation may be done without extensive utility calculations; the voter can simply ask if he/she received satisfactory utility from candidate a's performance in office. If not, would candidate b have provided greater utility? The decision becomes a relatively simple choice between two alternatives, usually marginally different, based on the past performance of one candidate in office. In addition, the voter need not hold positions on a variety of issues, need not place candidates on those issues, and need not calculate the utility of various issue positions.[15]

Despite its simplicity, this limited form of rationality remains fairly close to politics so that the outside observer would consider such a decision rational. The voter evaluates the performance of candidates in office rather than basing his/her vote on affective evaluations without political content.

Operational Indicators of Downs' Variables

Since the voter deals with perceptions rather than objective "reality," some measure must be constructed to tap a respondent's evaluation of candidate past performance or hypothetical past performance. The evaluations were measured during each wave of a three-wave panel survey by having the respondent locate his evaluation on a seven-point scale ranging from extremely good to extremely bad.[16] Voters responded to an item such as "Richard Nixon's handling of the Vietnam War."

The score on this item should indicate the respondent's evaluation of Nixon's handling of the Vietnam War; to measure overall past performance eight separate items were used: the race question, relations with China, the drug problem, unemployment, relations with the Soviet Union, law and order, inflation, and the Vietnam War.[17] Similar measures were constructed for George McGovern by asking for an evaluation "if George McGovern had been President." In addition, an overall performance indicator was collected but not used because the eight items generated more information on which aspects of past performance contributed most to electoral success and required specific rather than general answers.

---

[14] Both Frolich et al. and Schaffer use candidate differentials rather than party differentials. On the decline of parties see Walter Dean Burnham, *Critical Elections and the Mainsprings of American Politics* (New York: Norton, 1970); and Walter DeVries and V. Lance Tarrance, *The Ticket-Splitter* (Grand Rapids, Mich.: William Erdman's Publishing, 1972).

[15] This is the weakness of other empirical uses of Downs. Both Frolich et al. and Schaffer use issues to estimate party differentials. Downs explicitly uses past performance which is easier for the voter to discern.

[16] The data for this paper come from a panel survey of registered voters conducted during the 1972 presidential election campaign. The panel was selected by standard area probability techniques from the Syracuse, New York, metropolitan area. The panel had three pre-election waves — early September, early October, and early November — with interviews by professional interviewers lasting approximately ninety minutes each, followed by a brief post-election telephone interview. Beginning with 731 respondents in the first wave, 650 were re-interviewed in October and 659 were contacted in November. Overall 626, or 86 percent, of the original panel were interviewed all three times.

[17] This procedure, it is true, may not tap the issues of greatest concern to the respondent. But when the general indicator of past performance was used, separately and in tandem with the other measures, the prediction of vote choice was not statistically better. One could argue, therefore, few central performance evaluations were missed.

Departing from a strict application of Downs, a separate indicator of the incumbent's performance trend was not included. Voter perceptions of past performance should be colored by the most recent events, a "what have you done for me lately" response to politics; a logical demand given the cognitive limitations preventing synoptic rationality. If the recency perspective dominates politics, then those areas which have had a notable flurry of activity should register a more favorable (or less favorable depending on the circumstances) rating. Since the Nixon trips to Russia and China are instances where recent dramatic changes were made, if a trend factor is incorporated in the scale items, the ratings on those scales should be more favorable than the other scales. Table 1 demonstrates that Nixon's performance regarding Russia and China were more favorably received than the domestic policies which were relatively stable in the year before the election. The indicators probably reflect a trend factor.

TABLE 1. PAST PERFORMANCE SCORES BY CANDIDATE AND WAVE OF THE SURVEY

	NIXON WAVE			MCGOVERN WAVE		
Performance Item	*I*	*II*	*III*	*I*	*II*	*III*
Race	.68	.64	.68	.16	.17	.14
China	1.75	1.83	1.87	.00	-.18	-.25
Drugs	.39	.47	.48	.27	.21	.16
Unemployment	.28	.38	.36	.16	.19	.14
Russia	1.63	1.74	1.74	.00	-.16	-.29
Law and Order	.77	.88	.91	.24	.21	.20
Inflation	.41	.39	.28	-.12	-.15	-.20
Vietnam	.98	.93	.97	-.30	-.50	-.40

When candidate differential approaches zero, the key factor in predicting vote choice, according to Downs, is the respondent's evaluation of the out-party's last term in office. Since no questions were specifically asked about the Johnson administration, an index had to be constructed. Applying Downs' theory, any voter who had a favorable opinion of Johnson would have voted for Humphrey in 1968, and Nixon voters in 1968 would have been dissatisfied with Johnson.[18] To expand the out-party variable further, party identification was incorporated; a Republican who voted for Humphrey was coded as having a more positive attitude toward Johnson than a Democrat who voted for Humphrey since the Republican's short-term component was more influential and thus indicative of a stronger feeling. Similar categories were established for Nixon voters with Democrats for Nixon less favorable to Johnson than were Republicans for Nixon.

Vote intention, a predisposition to vote for one candidate or the other, was measured by the two seven-point scales where the respondents assessed the

[18] As noted above, Downs argues that a favorable evaluation of the incumbent is rationally translated into a vote for the incumbent's party. Humphrey voters in 1968 could, therefore, be assumed to be favorably disposed toward Johnson while Nixon voters could be assumed to evaluate Johnson unfavorably. Although many counter examples could be suggested, the use of 1968 vote as an indicator of pro- or anti-Johnson evaluation is logically consistent with Downs' theory. An indicator of the measure validity is the correlation between the Humphrey and Johnson feeling thermometers in the 1968 election. The highest correlation between any two feeling thermometers of possible candidates was between Johnson and Humphrey (r=.7). See Philip E. Converse, Warren E. Miller, Jerold Rusk, and A. C. Wolfe, "Continuity and Change in American Politics," *American Political Science Review* 63 (December 1969): 1083-1105. The final utility scale for the out-party variable looks like this:

	VOTE CHOICE		
Party Identification	*Humphrey*	*Nixon*	*No Vote*
Democrat	+1	-2	0
Independent	+2	-2	0
Republican	+2	-1	0

probability (from extremely likely to extremely unlikely) that they will vote for Richard Nixon/George McGovern. The difference between the scales (scored from plus six to minus six) is defined as vote intention and can be interpreted as the probability of voting for one candidate or the other. Vote intention correlates highly with the actual vote cast and has the advantage of greater variation.

Because few studies have measured perceptions of candidate past performance in office and because none have operationalized the measures in this manner, a note on the reliability of the measures is in order. If the items fail to show an acceptable degree of reliability, the results produced will have little value since unreliable measures attenuate correlations and bias other parameter estimates. Heise has developed a method of estimating a concept's reliability when the variable is measured at three different times and when the real values of the variable vary as a function of some exogenous variables.[19] The reliability coefficient for the candidate differential is .92 while that for vote intention is .95. The magnitude of these coefficients indicates that the measures are fairly reliable.

Past performance scale measurements (see Table 1) provide a rough indicator of each candidate's strengths and weaknesses. Richard Nixon received by far his best scores for his handling of relations with China and the Soviet Union. In spite of McGovern's criticisms of the war in Vietnam, Nixon received his next highest rating on his Vietnam policy, followed by law and order, and race, respectively. If the Nixon record had a soft spot, it was the traditionally Democratic bread and butter issues — inflation and unemployment. When compared with the Nixon record, the McGovern campaign, as presented by the news media, was directed at Nixon's strengths rather than at his weaknesses.[20] The result was that Senator McGovern began the campaign with positive evaluations on most of his past performance indicators but progressively lost ground on foreign policy issues. In traditional areas of Democratic strength he retained his favorable evaluations but consistently trailed the incumbent on every issue.

A favorable evaluation of Nixon's first term in office (summed over the eight indicators) should be positively related to intention to vote for Nixon. Table 2 shows not only the positive relationship but also that the correlation

TABLE 2: CORRELATIONS BETWEEN THE RESPONDENT'S INTENTION TO VOTE FOR A CANDIDATE AND THE PAST PERFORMANCE EVALUATION OF THAT CANDIDATE

	VOTE INTENTION	
Wave of the Survey	*Nixon*	*McGovern*
September	.60 (N=688)	.58 (N=695)
October	.66 (N=631)	.65 (N=631)
November	.72 (N=621)	.66 (N=623)

[19] See David R. Heise, "Separating Reliability From Stability in Test-Retest Correlations," *American Sociological Review* 34 (February 1969): 93-101. The formula used to calculate the reliability coefficients is as follows:

$$r_{tt} = \frac{r_{12}r_{23}}{r_{13}}$$

Where r_{tt} is the reliability coefficient and r_{ij} is the correlation between the variable measured the ith time and the jth time.

For an alternative set of assumptions see D. E. Wiley and J. A. Wiley, "The Estimation of Measurement Error in Panel Data," *American Sociological Review* 35 (February 1970): 112-17.

[20] A content analysis of national news programs broadcast during the 1972 election campaign (see Thomas E. Patterson and Robert D. McClure, *The Unseeing Eye* (New York: Putnam, 1976) revealed that the three networks averaged eighteen stories per network on McGovern's Vietnam position, far more than any other issue. Corruption averaged eleven stories and no other issue received more than five stories per network. The networks, therefore, cast the McGovern challenge largely in terms of the Vietnam War.

increased over time indicating that as the decision time approached, the relationship strengthened (r_1=.60, r_2=.66, r_3=.72).[21] Similarly, favorable evaluation of Senator McGovern's hypothetical past performance is positively related to intention to vote for McGovern, and the correlations also increase over time (r_1=.58, r_2=.65, r_3=.66). The voter, however, must choose between the alternatives presented, not decide on each candidate separately. This decision, according to our theory, is based on the difference between the two expected utilities. The difference between the two performance ratings (candidate differential) correlated strongly with vote intention (Table 3). Similar to the

TABLE 3. CORRELATIONS BETWEEN VOTE INTENTION AND CANDIDATE DIFFERENTIAL BY SURVEY WAVE

Wave of the Survey	*Correlation*	*Corrected for Attenuation*
September	.73 (N=647)	.78
October	.76 (N=614)	.81
November	.77 (N=609)	.83

previous relationships, the correlations between candidate differential and vote intention increased from .73 in September to .76 in October and .78 by the final wave in November. When corrected for attenuation caused by the lack of perfect reliability of the measures, the correlations increase to .78, .81, and .83 respectively. A closer inspection of the data reveals that the relationship is even stronger than the correlations demonstrate. Table 4 displays both November vote choice and past performance evaluations as dichotomous variables. As Table 4 reveals, the simplified Downs model can predict 94.5 percent of the final vote correctly simply by considering the direction, but not the intensity of the respondent's candidate differential.[22]

TABLE 4. THE STRENGTH OF THE RELATIONSHIP BETWEEN VOTE CHOICE AND CANDIDATE PAST PERFORMANCE DIFFERENTIAL

	VOTE CHOICE	
Candidate Differential	*Nixon*	*McGovern*
Nixon	348	9
McGovern	19	137
Gamma = .99		

Since the out-party candidate has some difficulty establishing a past performance public record and since the voter correspondingly has even more difficulty evaluating the utility of this hypothetical situation, the "second" future modifier, the out-party's last term in office, was added to the model. To

[21] Each item in the index was weighted equally. A separate set of indicators on item salience to use as weights was not included in the survey. This procedure is consistent with Kelley and Mirer, Frolich et al. and most other issue, performance, or evaluative indices of candidates. The exception, of course, is RePass who improves predictions of vote choice by using a salience factor.

[22] The correlations and predictions are so high as to invite skepticism. One possibility is that both vote intention and candidate differential are caused by a general candidate evaluation. This data set includes a series of items to tap the images the respondents had or the candidates on a variety of dimensions such as honesty, trustworthiness, etc. The candidate image index is strongly correlated with both vote intention (r=.6) and candidate differential (r=.6). If candidate image is controlled, candidate differential is still strongly correlated with vote intention (partial r = .5). Candidate differential probably does contain some elements of candidate image just as it contains some elements of issue positions, but is also taps the additional unique factor of past performance. Party identification also correlates highly with candidate differential (r=.5) but controlling for party identification has little impact on the vote intention — candidate differential correlation (partial r=.7).

add the Johnson utility indicator some estimate must be made of the respondent's candidate differential threshold (e.g., the amount of utility necessary to interest the citizen in voting) because Johnson's performance only affects the respondent's vote if the candidate differential approaches zero. Since voters demonstrate an overwhelming willingness to evaluate the Nixon administration and the hypothetical McGovern administration, only the 10 percent of the respondents with the smallest candidate differential were arbitrarily classified as having a candidate differential too small to breach the utility threshold. Adding the Johnson factor to the equation of the voters with near-zero differentials did not produce appreciably different results. The correlations improved slightly to .74, .77, and .79 in the three waves, hardly a significant increase.

A closer analysis of the 1972 election reveals why adding the Johnson past performance indicator did not result in a significant improvement in prediction. First, although McGovern's record was less familiar than Nixon's, voters did describe his positions on most key campaign issues accurately.[23] The McGovern issue stands generated sufficient information about the candidate differential. Second, McGovern was not strongly associated with the Democratic party and took pains to disassociate himself with the record of the Johnson administration on Vietnam. Third, former Vice President Humphrey, the candidate most strongly associated with the Johnson administration in 1968, also sought the nomination; and his opposition to Senator McGovern perhaps led to further disassociation of McGovern from the party of Lyndon Johnson.

Voter Choice: Rational or Rationalizing

The correlations found in the 1972 election do not demonstrate that the voters decided in a rational manner. A voter could, for example, decide how to vote and then alter his/her candidate differential to correspond with the previously decided vote choice. This rationalizing behavior would produce positive correlations between candidate differential and vote intention even if no rational behavior took place.

The similar results of rationality and rationalizing plague most voting research in this area since they prevent the analyst from drawing any conclusions about the decision process. The difference between rationality and rationalization cannot be determined statistically using cross-sectional data; but, the panel design of the present study allows one to draw some tentative conclusions about the "direction of causality" and, thus, rationality.

Figure 1 depicts the possible relationships between vote intention (V) and candidate differential (C) measured at two different times. Since this model

[23] The two candidates' positions are, on the average, accurately placed by the voters. The following scores indicate whether the public viewed the candidate as supporting the issue (positive scores) or opposing the issue (negative scores). The magnitude of the score is an indicator of the electorate's certainty.

	Belief About Nixon	*Belief About McGovern*
Wiping out all political corruption	.20	.70
Immediate pull-out from Vietnam	-.90	2.31
Holding down government spending	.63	1.05
Spending less on the military	-.82	1.96
Amnesty for draft evaders	-1.77	1.49
Putting a stop to busing	1.29	-.26
Honor commitments to other nations	2.14	-.18
A guaranteed annual income	-.82	1.41
Making people on welfare go to work	1.19	.17
A guaranteed job for everyone	-.39	1.41
More taxes on incomes over $20,000	-.46	1.51

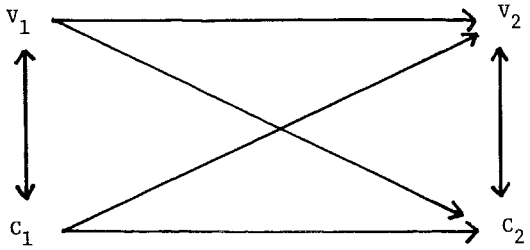


FIGURE 1: GENERAL PANEL MODEL

contains eight paths and six possible correlations which can be calculated, further assumptions are necessary to identify all equations. Specifically, we assume that candidate differential can affect vote only after a time lag and that vote can affect candidate differential only after a time lag.[24] This assumption eliminates the path from V_2 to C_2 and from C_2 to V_2 and leaves the identified model in Figure 2. Given the model in Figure 2, if we *assume* that candidate

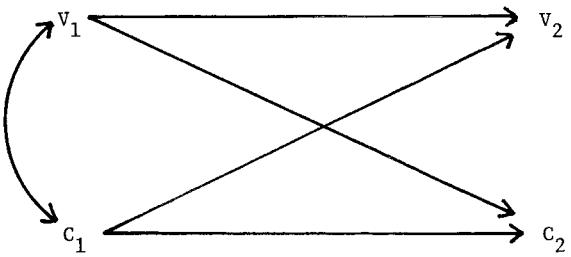
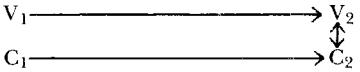


FIGURE 2: IDENTIFIED PANEL MODEL

differential is a cause of vote intention, vote intention at time 2 should become more congruent with candidate differential at time 1. Because candidate differential would not be affected by vote intention under this assumption, its change relative to vote would be random, reducing the congruence between vote intention at time 1 and candidate differential at time 2. Thus, Campbell[25] argues if $r_{V_1C_2}$ (the correlation between vote intention at time 1 and candidate differential at time 2) exceeds $r_{C_1V_2}$ (the correlation between candidate differential 1 and vote 2), then vote intention would be the more probable cause of change in candidate differential. If $r_{C_1V_2}$ exceeds $r_{V_1C_2}$, candidate differential would be causally prior.

Since Campbell's original essay several scholars[26] have suggested improvements in panel analysis. Basically the improvements entail controlling for

[24] An alternative assumption to causal impact only after a time lag is the assumption that all causal impact is direct, resulting in the following model:



When the parameters of this model were estimated using two-stage least squares, the inferences as to causation were identical to the lagged model. The model with direct causation was rejected, however, because the assumption that candidate differential 1 affects vote 2 only through candidate differential 2 is tenuous. If candidate differential and vote are reciprocally related at time 2, it is implausible that they are not reciprocally related at time 1. The result would be several underidentified equations. If different exogenous variables could be found which fit the assumptions of the model, the model could be used.

[25] Donald T. Campbell, "From Description to Experimentation," in C. W. Harris, *Problems in Measuring Change* (Madison: University of Wisconsin Press, 1962).

[26] George W. Bohrnstedt, "Observations on the Measurement of Change," *Sociological Methodology 1969* (San Francisco: Jossey-Bass, 1969), pp. 113-33; Donald C. Pelz and Frank M. Andrews, "Detecting Causal Priorities in Panel Study Data," *American Sociological Review* 29 (December

autocorrelation[27] with Pelz and Andrews comparing partial correlations 102 and $r_{C_1V_2 \cdot C_2}$) and Heise using path coefficients estimated from the model in Figure 1 ($p_{C_2V_1}$ and $p_{V_2C_1}$). In both cases the larger of the controlled coefficients indicates the causal relationship.[28] Given the problems with the simple correlations, this analysis will use the paths approach of Heise and the partials approach of Pelz and Andrews to determine the relationship between candidate differential and vote intention.

TABLE 5. CROSSLAGGED RELATIONSHIP BETWEEN CANDIDATE DIFFERENTIAL (C) AND VOTE INTENTION (V)

	PATH COEFFICIENTS		PARTIAL CORRELATIONS	
Time Period	V → C*	C → V**	V → C	C → V
September to October	.27	.13	.34	.19
September to November	.27	.18	.32	.23
October to November	.15	.14	.23	.23
N = 557				

*Vote Intention Causes Candidate Differential to Change
**Candidate Differential Causes Vote Intention to Change

Table 5 shows the cross-lagged relationships between vote intention and candidate differential for all voters. Both the September-October relationships and the September-November relationships indicate that *candidate differential is adjusted to conform to vote intention*, a clear case of rationalizing behavior. Changes in the last month of the campaign, however, are inconclusive, forming neither a rational or a rationalizing pattern. The data on the first months of the campaign fail to support Down's theory of rational voters,[29] while data for the last month of the campaign indicate the behavior may not be simply rationalization.

Before we accept the conclusion that the correlation between candidate differential and vote intention is the result of rationalization, one plausible rival hypothesis should be entertained. The cross-lagged technique used here is sensitive to change in either past performance evaluations or vote intention and relatively insensitive to stable preferences. Most voters had already reached a decision by the time the survey instrument was in the field (September 1972) so that vote intention was fairly stable. The past performance evaluations were more fluid; and since these tended to change in a direction consistent with vote intention, the change appeared as rationalization.

This change may well be rational behavior. Assume for the sake of argument that voter A has decided to vote for candidate B by July. Even with this decision if voter A is rational, voter A will continue to monitor the political environment, though at a reduced level, to be sure the decision was correct. This monitoring will change the voter's past performance evaluations of the candidates slightly but not, under most conditions, the voter's vote intention. This seemingly rational action will appear as rationalization when examined by the cross-lagged technique.

1964): 836-48; David R. Heise, "Causal Inferences From Panel Data," *Sociological Methodology 1970* (San Francisco: Jossey-Bass, 1970), pp. 3-27.

[27] Autocorrelation is a problem simply because V_1 is the most likely cause of V_2. The correlation between C_1 and V_2 might be large and positive solely because $r_{C_1V_1}$ is positive and because there is a strong relationship between V_1 and V_2.

[28] For example, if the path from V_1 to C_2 is larger than the path from C_1 to V_2, then vote intention is causally prior to candidate differential; and we have a case of rationalizing behavior.

[29] Actually Downs uses rationality in an instrumental or axiomatic sense. He assumes voters are rational and deduces predictions from that assumption. He believes the utility of a theory is a function of its predictive ability rather than the truth of its assumptions. As a result Downs would not be interested if voters were in fact rational as long as their behavior could be predicted by assuming they were rational. See Downs, *An Economic Theory of Democracy*, p. 21.

The rational/rationalizing issue can only be resolved if surveys are in the field before vote decisions are finalized. One imperfect test of this issue with the present data, however, is possible — examining the decisions of those voters who actually decide how to vote during the campaign. Late deciders, however, are the least likely group of voters to engage in rational behavior since they tend to be less interested and less informed about the election than those who decided early.[30] Although late deciders have characteristics that suggest they will rationalize, Table 6 shows that of the 95 respondents who were undecided in September and who voted in November, nearly 70 percent voted for the candidate they favored on the past performance indicators. Since these voters had formed performance evaluations prior to selecting a candidate, *this behavior cannot be considered rationalization.* The behavior of the late deciders also indicates that many of the early deciders probably selected their candidates in a rational manner.[31]

TABLE 6. SEPTEMBER UNDECIDEDS CAST BALLOTS FOR CANDIDATE EVALUATED MORE POSITIVELY IN SEPTEMBER

	NOVEMBER VOTE	
September Past Performance	*Nixon Percent*	*McGovern Percent*
Nixon	76.5	39.6
McGovern	24.5	61.4
N =	51	44
Total Consistent = 66 of 95, 69.5 percent		

CONCLUSION

This analysis has applied the concept of limited rationality to voters' decisions in the 1972 election in an attempt to resolve the difference between the voters' cognitive abilities and the requisites of rational decision-making. This analysis argued that with high decision costs and low marginal returns, synoptic rationality was inappropriate to the study of voting behavior. Rather, vote decisions were structured in terms of limited or incremental rationality. Pursuing this argument, the operationalization of Downs' incremental theory of vote choice as limited rational decision-making produced useful results as demonstrated by the high correlations between candidate differential and vote intention ($r = .83$). When candidate differential is restricted to direction rather than intensity and direction, the results were even better, accurately predicting 94.5 percent of the vote.

After the Downsian theory was operationalized, the analysis attempted to determine if the high correlations were the result of rational decision-making or rationalization. If the correlation between candidate differential and vote intention resulted because voters rationalized their candidate differential in terms of their previously established vote intention, this would rule out a

[30] Berelson et al., *Voting*, pp. 148, 252.

[31] The findings here should be qualified in terms of the characteristics of the 1972 general election: 1972 set records for both low turnout and voter defection. With one candidate, McGovern, running an ideological, issue-oriented campaign, normal decision cues such as party identification had less relevance. Except for a reversal of parties, the 1972 election bears some similarity to the 1964 election and Goldwater's issue-oriented campaign against an entrenched incumbent. In such elections the electorate is presented with more information on candidates allowing "more sophisticated" decision cues such as past performance or issues to be used. With the additional self selection (because of the low turnout), the quality of the electorate's decision should be greater than under normal circumstances. In some respects, then, the 1972 election is an ideal time to seek rationality among the voters; and the findings may not be generalized to other elections.

rational process. Within a group of voters who delayed their decisions until the election campaign, rational behavior was evident. Since these voters were the ones least likely to engage in rational candidate selection because they had less interest in politics, the results suggest some of the electorate can exercise rational judgment in selecting presidential candidates.