Information, Participation, and Choice

An Economic Theory of Democracy in Perspective

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CHAPTER 6

Is Turnout the Paradox That Ate Rational Choice Theory?

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Morris P. Fiorina (1989) has recently suggested that a very good argument can be made for the claim that "turnout is the paradox that ate rational choice theory." The motivation for this claim is the belief that the two most commonly derived predictions from models of instrumental rationality—(1) that few if any voters will vote and (2) that turnout will be higher the closer the election—are contradicted, in the first case, and either contradicted or at least not strongly supported, in the second case, when one looks at the empirical evidence. While many authors have sought to modify the standard Downsian analysis of turnout to avoid the embarrassment of its repudiation by the facts (e.g., by asserting that voters minimax regret, or by introducing consumption benefits or expressive benefits to voting, or by modeling turnout as a group-centered process where entrepreneurial group leaders bargain with politicians using turnout as their currency: see reviews in Grofman 1987; chap. 5, this volume; chap. 4, this volume), virtually everyone who has written on this topic has accepted the view that the Downsian model of turnout is fundamentally at variance with the facts. Moreover, numerous critics of rational choice (beginning with Barry 1964) have asserted that the rational choice approach to turnout can only be rescued by heroic measures (such as the introduction of citizen duty) that do not fit easily within a rational choice framework.

In this chapter I advance the heretical views (1) that Downs and the authors who have followed him (including myself, in earlier work) have been fundamentally wrong in what they thought a rational choice model of turnout was capable of predicting, (2) that most attempts to test rational choice–based predictions of aggregate voting behavior have been fundamentally flawed, and (3) that, when we limit the predictions of a rational choice approach to turnout

to ones that reasonably follow from its fundamental premises, a rational choice model does quite well.

What Can We Expect of a Rational Choice Model of Turnout?

If rational choice models are taken to require us to assume that the only motivation governing individual behavior is self-interest, narrowly conceived, then it is not surprising that rational choice models often yield results that are ludicrously at variance with the facts (people do salute the flag when no one is looking). The view that a rational choice model requires that the *only* element to be allowed in a voter's utility function is the expected short-run *instrumental* benefit from voting is like saying that the only way we could use rational choice models to predict eating behavior is to limit people's motivations for their food choices to a *single* parameter—for example, an instrumentally rational choice of a consumption bundle that maximizes expected longevity. If so, there would be no accounting for chocolate![1]

Even more important, it is appropriate to think about rational choice models in the context of accounting for changes in choices, rather than choices, per se. Rational choice models cannot explain why, ceteris paribus, the French drink more wine than the Germans and the Germans drink more beer than do the French, either. They can, however, predict that wine consumption and beer consumption in both countries will be affected by changes in the relative prices of the two commodities. Moreover, while rational choice models appear to do poorly in predicting who will vote in a given election, so do all other models other than those that posit that people who aren't registered won't vote (Erickson 1981; Wolfinger, 1993) and those that recognize that the single best predictor of whether or not someone will vote is whether or not they have voted before (Barbara Norrander, personal communication, 1985).

What is the Expected Relationship between Turnout and Political Competition?

The extensive empirical literature on the relation between turnout and political competition universally assumes that the Downsian (rational actor) model of voting implies that turnout should be higher the smaller the expected plurality of the winning candidate (See, e.g., Downs 1957b; Ferejohn and Fiorina 1975; Foster 1984; Gray 1976; Grofman 1983; Patterson and Caldeira 1983;

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1. I am indebted to my colleague, A Wuffle (personal communication, December 2, 1991) for this example. Wuffle also insists, more generally, that one should never do anything for only one reason. The more reasons one has, the less likely one is to be disappointed.

Settle and Abrams 1976; Tollison, Crain, and Paulter 1975). This conclusion appears to follow from the assumption of the Downsian model that a person's expected benefit from voting is

$$PU + (B - C), \tag{1}$$

where P is the probability that a shift of a single vote will change the election outcome, U is the utility attached by the voter to electing the candidate of his or her choice, C is the noninstrumental cost of voting (e.g., time spent at the polls), and B is the noninstrumental benefit of voting (e.g., "psychic" satisfaction for expressing solidarity with a candidate or position). A rational person would vote if this expected benefit is positive. It would appear that a person who expects the election to be close will assign P a high value and, thus, ceteris paribus, will be more likely to vote. Thus, for the electorate as a whole, an election expected to be close should induce a high level of turnout. The additional assumption that the actual results of an election correlate with people's prior expectations about the results yields the prediction that turnout will be higher the closer the election results.

There are four key problems with this analysis. First, more-sophisticated equilibrium analyses of rational voting behavior (e.g., Palfrey and Rosenthal 1984, 1985; Owen and Grofman 1984; Ledyard 1984), in which voters are seen as involved in a game where mutual expectations matter rather than simply solving a problem in expected utility maximizing, give rise to a more complex picture of the link between turnout and closeness. The models in Ledyard 1984 and Palfrey and Rosenthal 1984, 1985, give rise to the result that, in equilibrium, all elections will be close, regardless of the distribution of preferences within the population. The usual interpretation of the Downsian model assumes that P is exogenously given, whereas these authors' expectational model leads to the conclusion that the value of P depends on the strategic behavior of potential voters and will always be close to one-half. Gordon Tullock (1967, 110) may have been the first person to realize that the Downsian model does not actually predict zero turnout even when costs are high.[2]

Second, as Amihai Glazer and I have shown elsewhere (Glazer and Grofman 1992), a simple relation between turnout and closeness may not hold once we consider the reasons why some elections are closer than others. Consider an election in which most constituents see little difference between

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2. These models do say that turnout will be higher the more evenly split the preferences are of the citizens; indeed, Thomas R. Palfrey and Howard Rosenthal show that in equilibrium the level of turnout is about double the number of potential voters who prefer the less popular candidate. Thus, turnout should be higher if only 51 percent of the constituents prefer the Democratic candidate than if 70 percent prefer the Democratic candidate.

the candidates: the value of $U_a - U_b$ will be small, and the probability that any one person prefers the Democratic candidate is about one-half. For any given level of total turnout the probability, P, that any one vote is decisive is larger the more evenly divided is the electorate in its preferences. Thus, in terms of equation (1) a race between similar candidates makes P a large number and U a small one. In contrast, suppose that all, or almost all, voters agree that one of the candidates is better than the other; the better one may be viewed as more effective or as more in tune with the voters' views. The election is therefore likely to give the winner (almost certainly the better candidate) a large plurality. For a given level of turnout this means that the probability, P, that any one vote is decisive, is low. To say that voters see one candidate as better than the other is to say that they think the value of U is large. Combining these two effects implies that the value of PU used in equation (1) can be either larger or smaller when voters see little difference between the candidates.

Thus, turnout in close elections (which under our assumptions usually occur when most constituents are indifferent about the candidates) may be either higher or lower than turnout in landslide elections (which will occur when most constituents agree that one candidate is far better than the other). Similarly, Glazer and Grofman (1992), consider what happens when voters with different preferences have different costs of voting. Imagine a snowstorm that increases the cost of voting. Suppose that, other things equal, rich people can drive to the polling booth and need not take public transportation, so that bad weather increases their voting costs by less than it increases the costs for the poor. Suppose also that the rich and the poor prefer different candidates. Inclement weather would then depress turnout in total and depress the turnout of the rich by less than that of the poor. How turnout varies with the margin of victory thus depends on the relative numbers of rich and poor people. We make the point that, in general, we simply cannot predict what the relationship between turnout and election closeness will be at the aggregate level.

Third, in most states, it is impossible to vote without being registered, and the decision to register is usually made far in advance of any given election (Wolfinger 1993, forthcoming). In instrumental terms the decision to register must therefore be viewed in the context of the *potential* to influence *many* future elections and, like the chip in a poker game sometimes required for "openers," represents a decision that one still wishes to leave open the option of staying in the game.[3] Moreover, insofar as registration indicates some degree of interest in the electoral process, and insofar as the costs involved in

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3. Alternatively, as Julie Withers (personal communication, 1990) put it: "If you don't vote, then you're not allowed to bitch at the outcome."

registering are usually greater than the costs in voting, a rational choice approach suggests that a high proportion of those who are registered (a self-selected set who has already surmounted the major hurdle to voting) ought to vote—as, of course, they do.

Fourth, the models that fail to find a link between turnout and electoral closeness are, in my view, improperly specified largely because of their failure to take into account a long enough time frame and to recognize that turnout variations will often be more a function of long-run than of short-run election-specific factors. Moreover, the models suffer from a variety of methodological problems, some quite severe.

Four approaches have been commonly used to test what is taken to be the Downsian prediction of the relation between turnout and political competition.

1. Cross-sectional analysis of the link between observed election closeness (as a post hoc measure of expected election closeness) and voter turnout across different political units (such as states) for a given type of election.
2. Correlation between a game-theoretic measure of power to affect outcomes (such as the Banzhaf Index, based on the posterior likelihood of casting a decisive vote derived from observed election closeness) and actual turnout.
3. Longitudinal analysis of the relation between observed election closeness (again used as a surrogate for perceived election closeness) and voter turnout in the same political unit (such as a state) for a given type of election.
4. Analysis of survey data to see whether or not potential voters who believe a given election will be close are, ceteris paribus, more likely to vote.

Analyses of the types described commonly run regressions in which the dependent variable is the rate of turnout among voters, and the critical explanatory variable (or at least one of the critical variables) is a measure of the likelihood that any one vote will decide the election. The Downsian model is considered to be supported if the coefficient on this explanatory variable is significantly positive. The null hypothesis is that closeness and turnout are not related. The empirical evidence is mixed (see Foster 1984 for a useful survey).

I claim that each of these approaches suffers from methodological flaws, and none represents a proper test of the Downsian model. A general problem with the first three types of aggregate-level analyses is that the claim that actual election closeness is a good surrogate for perceived election closeness

is not well supported by survey data (see Uhlaner and Grofman 1986; Wolfinger 1993, forthcoming). However, each of the methods has other, even more severe, drawbacks.

Cross-sectional studies

Carroll B. Foster (1984) uses a cross-sectional approach to examine turnout in the fifty states for the presidential elections in the years 1968, 1972, 1976, and 1980. Foster finds that the critical explanatory variable—the fraction of the vote received by the winning candidate in a particular year in a particular state—has a significantly positive effect on turnout in 1968, a significantly negative effect in 1972, and an insignificant effect in 1976 and 1980. Gubernatorial elections appear to show stronger results. Samuel C. Patterson and Gregory A. Caldeira (1983) examine turnout for gubernatorial elections in 1978 and 1980; they find that the closer the election the higher the turnout. Robert D. Tollison, W. Mark Crain, and Paul Paulter (1975) find that for the 1970 gubernatorial elections turnout is greater if the election is close.

The cross-sectional approach, however, suffers from two major difficulties. First, and most importantly, it can give rise to an ecological fallacy when the search for the relation between turnout and closeness uses states as units of observation. In particular, in comparing states, we find that turnout is far lower in the old one-party South, but that the link between closeness and turnout in cross-sectional studies has diminished as the South has become more competitive and as barriers to voting by southern blacks fell in the mid 1960s. Similarly, the partisan composition of a state's constituency may affect turnout. Thus, because, in general, Republicans are more likely to vote than are Democrats, a state with many Republicans will usually see a higher turnout than a state with few Republicans. A researcher who compares turnout in states in which Republicans are a small minority to turnout in states in which Republicans are almost a majority will therefore find a positive correlation between turnout and closeness. Jonathan Silberman and Gary C. Durden (1975) introduce controls for demographic differences in congressional districts in the two election years they look at, 1962 and in 1970, that, in principle, vitiate this criticism, but their study (and similar studies using multivariate methods with cross-sectional data) potentially suffers from an even more-damaging flow.

Cross-sectional studies that look at a single type of election (indeed *any* studies of turnout that look only at a single election) commit what A Wuffle (1984) calls the "two front teeth" fallacy—the failure to recognize that, in any given election, voters choose candidates for a variety of offices (and often vote on referenda as well). Because different races in a given jurisdiction may differ in how close they are expected to be, a study that focuses on an election

for a single office will lead to a misreading of the effects of close races on turnout. Indeed, even Foster's (1984) otherwise excellent reanalysis of alternative models fails to fully recognize this fact. Moreover, it is troubling when a study of *gubernatorial* races finds closeness related to turnout in 1980 (Patterson and Caldeira 1983), but a study of *presidential* elections (Foster 1984) finds no such effect in 1980. Obviously, in many states voter turnout could have been affected by the closeness in either type of contest—as well as in other types of contests.

Game-Theoretic Power Scores

Studies of the relation between the electoral power of a jurisdiction and its level of turnout in presidential elections (e.g., Kau and Rubin 1976, 1977; Collins 1981) suffer from the same difficulties identified here, but they also have other problems. Game-theoretic considerations argue that differences in the size of each state's electoral vote mean that in some states the probability that a particular voter will decide the national (and not just the state) election will differ from that probability in other states. This has two implications: voters in some states will have a greater benefit from voting, and candidates will have a greater incentive to attempt to influence votes in some states than in others. Empirical studies of turnout in presidential elections have focused on the first effect and ignored the second.

Thus, consider one of the fifty states in the United States that has a large electoral vote in presidential elections. This state is especially important for a candidate to win, and therefore the candidate will spend more time in it. But it may well be that a citizen is more likely to vote the more this individual has heard about the race, and therefore that turnout will be higher in that state. Turnout and closeness will therefore be correlated because of the candidate's strategies; the correlation need have nothing to do with a potential voter's calculation of the probability that his or her vote will be decisive. The electoral college analysis of Richard J. Cebula and Dennis R. Murphy (1980) takes a somewhat different tack—but one that creates problems of its own. They find that turnout votes are lower in states with a high proportion of Democratic control and attribute it to free-rider behavior. Unfortunately, there are other demographic factors at work that suggest a plausible alternative model. In particular, turnout is much lower in the South.

Survey Data

An alternative approach to studying the relation between turnout and closeness uses survey data: ask people whether or not they expect the election to be close and also ask them whether or not they intend to vote. Support for the

Downsian hypothesis would then appear to consist of a positive correlation between individuals' intention of voting and their expectations about the closeness of the election. Unfortunately, survey data can yield misleading results about the behavior of voters. The difficulty appears when people's expectations about the election results are correlated with their electoral preferences.

Two methods can be used in survey research. One way to use survey data is to test whether, on average, turnout is higher when voters expect the election to be close (e.g., Ordeshook and Riker 1968). Another way is to correlate the beliefs of each respondent about the closeness of a forthcoming election with the respondent's intentions of voting. The problem with these approaches is that turnout and expected closeness can be correlated for reasons that may have nothing to do with the incentives to vote.[4]

Let us posit that three types of persons vote in any given election—those who usually vote, those who often abstain but who this time prefer the Democratic candidate, and those who often abstain but who this time prefer the Republican candidate. Consider a jurisdiction in which Republicans are usually a minority, but let the Republican candidate in the given election be uncommonly effective or attractive, so that those people who usually abstain but who now vote disproportionately favor the Republican candidate. Persons who are asked whether or not they believe the election will be close must form some estimate of the behavior of others. Many people probably attribute to others feelings similar to their own. Persons who find the Republican candidate uncommonly attractive may well think that others find that candidate uncommonly attractive as well and that other citizens who, like them, often abstain will turn out this time to vote for the Republican. Given these beliefs the respondent would expect the election to have a high turnout and the winner to have a small plurality (since the respondent thinks that Republicans are usually a minority, but that in this election others will also find the Republican uncommonly attractive). Persons who usually abstain but who this time prefer the Democratic candidate will show the opposite opinion—they think that others will also prefer the Democratic candidate, and that therefore the Democratic candidate will win an unusually large proportion of the vote. Since, however, by assumption, turnout among Republicans in the given election is unusually high, the usual Democratic majority will be atypically small, the election results will be unusually close, and the data will show that, on average, persons who turn out in this election believe that it will be closer than

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4. Glazer and I (1992) specify models in which high turnout will be associated with close elections because the variance in the proportion of persons who vote for a particular candidate is smaller the larger the sample size. We refer the reader to the discussion of this relatively esoteric point.

usual. Finally, persons who are not motivated to vote may think that, as usual, the Democratic candidate will easily win. We would therefore find that on average those persons who do not intend to vote expect the election to be won by a large (Democratic) majority.

Combining these effects we conclude that the data will show that turnout is higher among persons who expect the election to be close. The reason, however, for this correlation lies in the ways voters form their expectations and has nothing to do with a Downsian calculus that considers the possible decisiveness of a vote.

The opposite relation between turnout and closeness can also hold. Suppose, as before, that in the particular election the Republican candidate is unusually attractive. But, in contrast to the previous story, let Republicans normally be a majority in the district. A Republican who votes will likely believe that other Republicans will vote as well, and therefore that the election will be a landslide. In contrast, a Republican who does not vote is likely to believe that other Republicans will not and therefore believes that the election will be close. Republican respondents would thus exhibit a negative correlation between turnout and beliefs about the closeness of the election. Democratic respondents would show the opposite effect: a Democrat who intends to vote believes other Democrats will turn out as well and therefore that the election will be closer than usual. Since by assumption there are more Republicans than Democrats in the jurisdiction, the data will show that, on average, those people who intend to vote also think that the election results will show a large plurality for the (Republican) winner.

The fertile mind can imagine other possibilities that lead to different correlations between turnout and closeness when survey data are analyzed. The point of our discussion is not to argue in favor of any particular correlation. Rather, it shows that assumptions about the ways voters form *expectations* can affect the correlation between turnout and closeness. Both positive and negative correlations can appear even if no voter considers the likelihood that his or her vote will be decisive when deciding whether or not to vote.

Longitudinal Studies

In a longitudinal study Virginia Gray (1976) concludes that if one examines the same state over time, rather than different states at the same time, the relation between turnout and closeness disappears. In contrast, Russell F. Settle and Buron A. Abrams (1976) find in their time-series study of all presidential elections over the period 1868–1972 that turnout is higher the closer the election. Reanalyzing the data of Wolfram and Foster (1981), Foster (1984, 685) also finds a link between an *ex ante* measure of expected closeness and turnout but argues that the statistical link may be dominated by the

southern effect (that is, legislative imbalance has historically been higher, and turnout lower, in southern states).

In our view the key problem with existing longitudinal studies (with the exception of Settle and Abrams 1976) is that they do not study a sufficiently long time period. A link between competition and turnout is most likely to be found by comparing turnout in states before and after they experienced a shift in the degree of partisan competition that is both long lasting and substantial. Thus, as the South became less Democratic and more competitive, we would expect an increase in turnout relative to previous levels of turnout, at least once we control for the secular downtrend in the national average. Indeed, this has occurred (see Stanley 1987, 14–15, figs. 5 and 6; cf. Alt 1994, forthcoming).

Other Predictions of a Neo-Downsian Approach to Turnout

Looking at the evidence about the factors that affect voter participation in the aggregate, and taking a longitudinal rather than a cross-sectional perspective, I believe rational choice predictions do quite well. For example, as the Democratic primary declined in significance in southern elections as *the* decisive election, turnout levels in the primary (even among Democratic voters) declined relative to turnout in the general election. Similarly, the enfranchisement of blacks in the South in the 1960s triggered a corresponding countermobilization in the turnout rates of white voters relative to those of blacks in those jurisdictions where there was a black threat and realistic potential for a white counterresponse (see Alt 1994, forthcoming). Moreover, it is worth restating the obvious points that, ceteris paribus, turnout is lower when the weather is bad, when the barriers to registration are steep, and in elections whose outcomes few care about.[5] Furthermore, if we compare turnout in presidential election years to that in nonpresidential years, we see a marked and consistent sawtooth pattern. Indeed, even within a ballot there are significant variations in which posts people bother to vote for—with turnout dropping off significantly as we go toward offices at the bottom of the ballot (a phenomenon known as roll-off). Also, extremely high-intensity contests where there is a realistic potential for a change in control that would dramatically shift power relationships can mobilize voters—for example, the election in which Harold Washington was elected Chicago's first black mayor (Kleppner 1985). Similarly, in Louisiana in 1991, more than sixty-four thousand persons registered to vote in the final two days before the close of

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5. Raymond E. Wolfinger (1993, forthcoming) makes these points, and reminds us that most *registered* voters do vote.

registration for the November gubernatorial primary in that state, "most apparently for or against the candidacy of [former Ku Klux Klan member] David Duke" ("Lousiana Gubernatorial Primary Result" 1991). Conversely, when the potential for major change disappears (or when politics is routinized), turnout is reduced. For example, after Jesse Jackson was not nominated by the Democratic party in 1988, the majority of black voters newly registered during the primary campaign did not bother to vote in the general election (Martin P. Wattenberg, personal communication, 1991).

All of these phenomena can be accounted for as straightforward predictions of a rational choice approach to turnout that seeks to explain variations across elections.[6] To neglect the accuracy of such commonsense predictions is to mischaracterize the empirical evidence about the utility of a rational choice perspective! As is apparent, the approach to turnout I advocate is one that makes no grandiose claims to explain everything but does what microeconomic models customarily do best—namely, account for change at the margin.

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6. Regarding the importance of sensitivity to variations across elections, I might also note that recent work (Niemi, Whitten, and Franklin 1991) shows that, in multicandidate contests in the 1987 British general election, when we confine ourselves only to those electoral situations where there are strong incentives to vote tactically and to those voters who have such incentives, a significantly large proportion of the British electorate votes tactically, that is, against the party or candidate who would otherwise be their first choice in favor of a candidate who might be seen as having a better chance of being elected or in favor of a party that is seen as likely nationally to go underrepresented. Similarly, the recent concern with divided party rule in the United States at the congressional and presidential levels has uncovered evidence that a very substantial portion of the electorate prefers that Congress and the presidency be in the hands of different parties (Jacobson 1990).