Chapter 3.
The Basic Logic of Voting

Introduction

In order to plan its policies so as to gain votes, the government must discover some relationship between what it does and how citizens vote. In our model, the relationship is derived from the axiom that citizens act rationally in politics. This axiom implies that each citizen casts his vote for the party he believes will provide him with more benefits than any other. Though this definition seems obvious, it is actually based upon concepts which are both complex and ambiguous. In this chapter we examine them carefully in order to show what "rational voting" really implies.

UTILITY INCOME FROM GOVERNMENT ACTIVITIES

The *benefits* voters consider in making their decisions are streams of utility derived from government activity. Actually, this definition is circular, because we define utility as a measure of benefits in a citizen's mind which he uses to decide among alternative courses of action. Given several mutually exclusive alternatives, a rational man always takes the one which yields him the highest utility, ceteris paribus; i.e., he acts to his own greatest benefit.

All citizens are constantly receiving streams of benefits from government activities, Their streets are policed, water purified, roads repaired, shores defended, garbage removed, weather forecast, etc. These benefits are exactly like the benefits they receive from private economic activity and are identified as government-caused only by their source. Of course, there are enormous qualitative differences between the benefits received, say, from national defense and from eating mince pie for dessert. But no matter how diverse, all benefits must be reduced to some common denominator for purposes of allocating scarce resources. This is equally true of benefits within the private sector. The common denominator used in this process we call utility.
It is possible for a citizen to receive utility from events that are only remotely connected to his own material income. There can be no simple identification of "acting for one's own greatest benefit" with selfishness in the narrow sense because self-denying charity is often a great source of benefits to oneself. Thus our model leaves room for altruism in spite of its basic reliance upon the self-interest axiom.

Using this broad concept of utility, we can speak of a utility income from government activity. This income includes benefits which the recipient does not realize he is receiving. It also includes benefits he knows he is receiving but the exact source of which he does not know. For example, many citizens are probably not aware that the water they drink is inspected by a government agency. If inspection were discontinued, they might not realize their utility incomes bad fallen until they received polluted water.

The fact that men can receive utility income from government actions without being aware of receiving it may seem to violate the usual definition of income. Nevertheless, we must insist upon it, because an important political strategy of governments is making voters aware of benefits

they are already receiving. However, only benefits which voters become conscious of by election day can influence their voting decisions; otherwise their behavior would be irrational.

THE LOGICAL STRUCTURE OF THE VOTING ACT

TERMINOLOGY OF THE ANALYSIS

The unit of time we use is the election period. It is defined as the time elapsing between elections, and it forms the principal unit of judgment in a voter's mind. At least two election periods enter into a rational voter's calculations: the one following the coming election, and the one ending on election day. We will refer to these periods $t + 1$ and t respectively. To illustrate the verbal analysis, we also employ several other symbols as follows:

U stands for an individual voter's real or hypothetical utility income from government activity during one election period.

A is the incumbent party, i.e., the governing party in period t.

B is the opposition party, i.e., the party out of power in period t.

U^a stands for utility income actually received during a period. It is the utility income provided by the party in power during that period.

U^i stands for the utility income which a voter believes is the highest he could possibly have received during some period. It is the utility income which the ideal government would have provided him if it had been in power during that period.

E stands for expected value.

THE TWO PARTY DIFFERENTIALS

Each citizen in our model votes for the party he believes will provide him with a higher utility income than any other party during the coming election period. To discover which party this is, he compares the utility incomes he believes he would receive were each party in office. In a two-party system, this comparison can be set up as a simple subtraction:

$$E\ (U^A_{t+1}) - E\ (U^B_{t+1})$$

The difference between these two expected utility incomes is the citizen's expected party differential. If it is positive, he votes for the incumbents; if it is negative, he votes for the opposition; if it is zero, he abstains.

At first glance, rational voting thus appears to be a very simple matter. But its apparent ease is deceiving, for a crucial question remains: how should a rational voter calculate the expected

utility incomes from which he derives his expected party differential? It is in answering this question that we encounter difficulties.

When a man votes, he is helping to select the government which will govern him during the coming election period (i.e., period t + 1). Therefore as we have just shown, he makes his decision by comparing future performances he expects from the competing parties. But if he is rational, he knows that no party will be able to do everything that it says it will do. Hence he cannot merely compare platforms; instead he must estimate in his own mind what the parties would actually do were they in power.

Since one of the competing parties is already in power, its performance in period t gives him the best possible idea of what it will do in the future, assuming its policies have some continuity. But it would be irrational to compare the current performance of one party with the expected future performance of another. For a valid comparison, both performances must take place under the same conditions, i.e., in the same time period. Therefore the voter must weigh the performance that the opposition party would have produced in period t if it had been in power.

True, this performance is purely hypothetical; so he can only imagine what utility income he would have derived from it. But party B's future is hypothetical, too-as is that of party A. Thus he must either compare (1) two hypothetical future utility incomes or (2) one actual present utility income and one hypothetical present one. Without question, the latter comparison allows him, to make more direct use of concrete facts than the former. Not only is one of its terms a real entity, but the other can be calculated in full view of the situation from which it springs. If he compares future utility incomes, he enjoys neither of these advantages. Therefore, we believe it is more rational for him to ground his voting decision on current events than purely on future ones.

As a result, the most important part of a voter's decision is the size of his <u>current party differential</u>, i.e., the difference between the utility income he actually received in period t and the one he would have received if the opposition had been in power. Algebraically, this entity is calculated as follows:

$$U^A_t - E(U^B_t)$$

It is the major determinant of his expected party differential.

However, this conclusion does not mean that citizens in our model ignore the future when deciding how to vote. Obviously, such an attitude would be irrational, since the purpose of voting is to select a future government. Therefore the rational man in our model applies two future-orienting modifiers to his current party differential in order to calculate his expected party differential.

THE TREND FACTOR AND PERFORMANCE RATINGS

The first of these modifiers we call simply the <u>trend factor</u>. It is the adjustment each citizen makes in his current party differential to account for any relevant trend in events that occurs within the current election period. For example, let us assume that a voter believes the present government made many mistakes upon first taking office but has steadily improved and is now governing ex-pertly. He may feel that this expertness will prevail throughout the next election period if the

incumbents are re-elected. Therefore he adjusts his current party differential to eliminate the impact of their initial blunders. Conversely, if he feels the government started out superbly but has continuously degenerated, he may project only its bad performance into his expected party differential.

The second modifier comes into play only when the citizen cannot see any difference between the two parties running; i.e., when he thinks they have identical platforms and current policies. To escape from this deadlock, he alters the basis of his decision to whether or not the incumbents have done as good a job of governing as did their predecessors in office.

Our use of this particular tie-breaking device may seem rather arbitrary. Why should a rational man pay attention to the past in selecting a future government? Why should the present similarity of parties cause him to drag past governments into his decisions?

The answer to these questions is derived from the impact of elections per se upon party behavior. In effect, every election is a judgment passed upon the record of the incumbent party. But the standards used to judge its record are of two types. When the opposition's policies in period t have differed from those of the incumbents, the judgment expresses the voters' choice between the future projections of these two policy sets. But if the opposition's policies have been identical with those of the incumbents, mere projection provides the voters with no real choice. In this case, their judgment expresses whether they rate the incumbents' record as good or bad according to some abstract standard.

Thus every election is a signaling device as well as a government selector. However, in a two-party system, it is limited to giving one of two signals. The incumbents always regard re-election as a mandate to continue their former policies. Conversely, the opposition party regards its triumph as a command to alter at least some of the incumbents' policies; otherwise, why would people have voted for it? In short, the outcome calls for either "no change" or "change. Hence it always makes a difference which party is elected, no matter how similar their records in period t. If the opposition wins, it is sure to carry out policies different from those the incumbents would have carried out had they been re-elected.

However, no one knows in advance just what policy changes the opposition will make if it is elected. Nor can they be discovered by looking at the opposition's hypothetical record in period t, since (we are here assuming) it is identical with that of the incumbents. But if men do not know what change signifies, how can they rationally vote for or against it?

Rational men are not interested in policies per se but in their own utility incomes. If their present utility incomes are very low in their own eyes, they may believe that almost any change likely to be made will raise their incomes. In this case, it is rational for them to vote against the incumbents, i.e., for change in general.

On the other hand, men who are benefiting from the incumbents' policies may feel that change is likely to harm rather than help them. True, the opposition might introduce new policies which would raise their utility incomes. But their incomes are so high already that they fear any

break in the continuity of present policies. Hence they rationally vote for the incumbents, i.e., against change in general.

Clearly, both actions are rational responses to the fact that elections inevitably signal change or no change. They show that even when the parties running have identical records in period t, many citizens may reasonably expect different utility incomes from each party in period t + 1. Therefore abstention is rational only if a citizen believes that either (1) the policy changes that will be made if the opposition is elected will have no net effect upon his utility income or (2) these changes may affect his income, but the probability that they will raise it is exactly equal to the probability that they will lower it; i.e., the expected change is zero.

Two things are to be noted about this reasoning. First, we have admitted a degree of uncertainty into our certainty model. Second, we have argued that the incumbents' record can be judged as good or bad even when it is identical with the record of the opposition. But what standard for judgment exists in this case? With what can the incumbents' record be compared?

In the real world, men often compare what government is doing with what it should be doing without referring to any other party. Instead they are implicitly comparing the utility incomes they are actually receiving with those they would be receiving if the ideal government were in power. Of course, every man does not have the same ideals as every other. Yet each man can use his private conception of the ideal government to assign a <u>performance rating</u> to the incumbent party or any other party. Algebraically, it is computed as follows:

$$U^i_t / U^a_t$$

Performance ratings are extremely useful for comparing governments operating in different time periods or even in different areas They are necessary for such comparisons because absolute levels of utility income from different time periods cannot be compared directly, as we saw earlier. The performance rating of a government may change for the following reasons: (1) it changes its actions while other conditions remain the same; (2) it keeps the same actions, and they give rise to the same utility as before, but other circumstances change so that the ideal utility-income level alters; or (3) it keeps the same actions, but other circumstances change so that these actions no longer produce the same utility incomes.

In our model, performance ratings enter a voter's decision-making whenever he thinks both parties have the same platforms and current policies. At first glance, this rule seems to imply discontinuity in the voter's thinking, but in fact it does not. Every rational voter knows that if the opposition party is elected, it will alter some of the policies now being followed by the incumbents. But whenever the two parties have different platforms or current policies, he also 'knows just what changes will be made. Therefore he can choose between parties by deciding how he likes these specific changes.

However, when he believes the two parties have identical platforms and current policies, he no longer knows what specific changes will occur if the opposition wins. Therefore he is forced to base his decision upon his attitude towards change in general. There is no shift in his method of deciding how to vote; rather a shift in the evidence available causes him to discard one tool and use

another. The object of both tools is the same-to estimate the gain he will get from voting for one party instead of the other.

Thus voters use performance ratings only when their current party differentials are zero and not always then. A man's current party differential may be zero for two reasons: (1) both parties have identical policies and platforms; or (2) though their policies and platforms are different, they produce identical utility incomes for him. In the latter case, performance ratings are useless to him because he already knows what changes will take place if the opposition wins. Since these changes do not alter his utility income, he abstains. But in the former case he does not know what changes the opposition will make; hence he needs some way to determine his attitude toward change in general. We have already shown that (1) this attitude depends upon how good a job he thinks the incumbent are doing in providing him with utility income and (2) he can rate the incumbents' performance against an ideal performance. But by what standard does he evaluate, say, a rating of 40 percent as good or bad?

Formulating such a standard is what requires the voter to consider the performances of past governments. In our model, each voter develops his own standard out of his experiences with other governments. By computing their performance ratings, he creates a measuring rod with which he can discover whether the incumbents have been doing a good, bad, or indifferent job of governing. He votes for them if their rating is good, against them if it is bad, and not at all if it is indifferent.

PRELIMINARY DIFFICULTIES CAUSED BY UNCERTAINTY

So far we have glibly spoken of voters computing their party differentials and performance ratings without pointing out how difficult such computation is. In order to find his current party differential, a voter in a two-party system must do the following: (1) examine all phases of government action to find out where the two parties would behave differently, (2) discover how each difference would affect his utility income, and (3) aggregate the differences in utility and arrive at a net figure which shows by how much one party would be better than the other. This is how a rational voter would behave in a world of complete and costless information-the same world in which dwell the rational consumer and the rational producer of traditional economic theory.

In the real world, uncertainty and lack of information prevent even the most intelligent and well-informed voter from behaving in precisely the fashion we have described. Since he cannot be certain what his present utility income from government is, or what it would be if an opposition party were in power, he can only make estimates of both. He will base them upon those few areas of government activity where the difference between parties is great enough to impress him. When the total difference in utility flows is large enough so that he is no longer indifferent about which party is in office, his party differential threshold has been crossed. Until then, he remains indifferent about which party is in power, even if one would give him a higher utility income than the other. The existence of thresholds raises the probability that the expected party differential will be zero, i.e., that abstention will occur. It also makes it possible to change a voter's mind by providing him with better information about what is already happening to him.