I. Further Analysis of the Rational Voter Model

A. To this point, we have tried to explain the logic of the median voter model.

  i. Last week, we explored some positive implications of the median voter model and also demonstrated that a median voter does not always exist.

  ii. Today, we will examine some other positive properties of the model, and also begin analyzing some of its normative implications..

II. Rational Choice and Voter Turnout: Should Anyone Vote?

A. The models that we have assumed has focused on voter decisions among candidates.

  i. Voters all turn up and vote--by definition--and to the extent that this distribution is beyond the influence of candidates, competition leads them to take positions near the middle (median) of the distribution of voter ideal points if they want to win the election.

  ii. The equilibrium properties of contests for the votes cast by such persons implies that a strong form of the median voter theorem tends to emerge from elections between two parties or two candidates.

B. We now consider some other decisions made by voters that also have effects on public policy formation within democracies.

  i. In practice, we know that all persons who are eligible to vote do not actually do so.

  a. Many eligible voters choose to stay at home.

  b. Others go to work rather than to the voting booth.

  ii. Is there anything that rational choice can say about who actually votes?

C. To analyze the decision to vote or not requires some model of the motivation of voting--e.g. the purposes voters expect to advance by casting votes.

  i. The "natural" explanation is that voters vote because they hope to affect the electoral outcome and thereby the public policies that are subsequently adopted by government.

  ► Unfortunately this representation of purpose is not really sufficient to explain voter turnout.

  ► If voters cast votes simply in order to affect outcomes, the "rational" median voter model suggests that very few people will vote.

  ii. To see this, let C be the opportunity cost of voting.

  a. Let B be the benefit that a particular voter gets from having his program adopted or his preferred candidate in office.

  b. Let P be the probability that this particular voter will influence the outcome.

  c. *In this case, a voter's expected net benefits of voting is:* $N^e = PB - C$

  iii. *Note that the probability that a particular voter is decisive is very small!* (It is essentially the probability that the result would have been a tie without that person's vote.)

  a. Consider some numbers.

  ► Let C be fairly small, say \$10, and let B be fairly large, say \$20,000.

  ► The probability of a tie in a large election is pretty small, say 1/10,000. So the expected net benefit of voting in this cases is $N = (20,000)/(10,000) - 10 = -\$8$.

  ► This very concerned and rational voter would not vote!

  b. (Many in political science are surprised that so *few* people vote. Rational choice theorists are surprised that *so many* people vote!)

D. Evidently, voters cast votes for other reasons than affecting the outcome, although the latter may be important "at the margin."

  a. Duty: citizens may vote because voting itself makes them feel good, as if they are responsible persons

  ► Note that most democracies undertake efforts to make voters believe that it is their duty to vote, as with civics courses and through get out the vote advertising.

  b. Entertainment value: citizens may also vote because they like talking about who they voted for with their friends etc.

  ► Note that both these benefits occur simply from voting and would thus not be weighted by the probability of affecting the policy outcomes.

  c. Citizens may be altruists who internalize the some or all of the effects of public policies on their fellow citizens, generating very large B's, which are sufficient to induce them to cast their vote.

E. In such cases, the true benefit from voting would be the sum of these benefits and those associated with affecting policy.

  i. Thus, the affects of casting policies might still matter at the margin, but would misrepresent the main reason why voters turnout and vote.

► If the probability of affecting policy matters, turnout should be higher in close elections than in "land slides."

► Elections in which candidate differences are significant would also induce higher turnout.

► If the cost of casting votes affects choices, variables such as weather should affect turnout.

ii. There is some evidence that such effects do affect turnout. For example, turn out tends to be lower in bad weather.

► Thus, the "narrow" self-interest model of elections does help us to understand a bit about changes in turnout, although it cannot explain the magnitude of turnout.

iii. Another factor that the rational choice model also implies will affect turnout is the voting system.

a. Voting systems can affect the probability that a vote influences the outcome.

b. For example, under first past the post (plurality) systems like that in the United States, the size of majority does not matter. So if the vote margin is expected to be large, there is only a very small chance that a voter will affect the outcome.

c. On the other hand, in Proportional Representation (PR) systems there is a significant chance that a few votes will influence the number of seats that a voter's preferred party will receive.

► Consequently, predicted turnout should be somewhat larger under PR than within plurality systems, other things being equal.

► We do observe higher turnout in national PR elections than in plurality elections.

d. The size of the polity should also affect turnout, as the probability of a "tie" decreases rapidly as the number of voters increases.

► However, voters in the US **are not more likely** to cast votes in local than state elections nor state than national elections.

► Clearly, the "other things being equal" assumption is violated.

► The effects of national policy changes on personal welfare are often larger than those of local policies.

► (Or perhaps, voters are more altruistic than the normal rational choice models of electoral decisions assume.)

iv. Turnout is, of course, important in median voter models only if different turnout levels produce different median voters.

► In the U.S., generally speaking, richer, older, and more educated voters participate more often in elections than poor, young, less educated voters.

► This should affect policies for which preferences tend to vary with income, age or education, and there is some evidence of this..

► Stratmann and Mueller (2002), for example, show that there is more redistribution in democratic states with higher turnouts than with lower turnouts.

III. Rational Ignorance

A. Another aspect of the median voter model that has been neglected to this point is the extent to which voters know enough to accurately determine their own ideal policies and to select the "right" candidate or party.

i. (Indeed, it could be argued that we have so far assumed that voters are perfectly informed, as is often done in rational choice models.)

ii. Polling data and rational choice models have long recognized that voters have far less complete information than would be ideal.

► (See for example Paldim and Nannestad, 2000).

B. The term "rational ignorance" was coined by Antony Downs (1957) and taken up by Tullock (1967).

i. Neither author carefully defined the term, but their idea is straight-forward.

► Namely, they point out that information is costly, and therefore, voters will economize on information, just as they do other goods.

ii. As a consequence, Voter's will tend to be *rationally ignorant* of many details of public policy because the cost of additional information will at some point exceed the expected marginal benefits of that information.

► Moreover , if public policy relevant information is collected only to reduce mistakes while voting, the benefits of that information would be weighted by the probability that their vote is decisive.

► This reduces the marginal benefit of public policy information without affecting its costs, which implies that voters know less about public policies than about "private policies" that they can directly control.

► That is to say, voters will only gather information up to the point where the expected benefit of the information equals its marginal cost. [Diagram.]
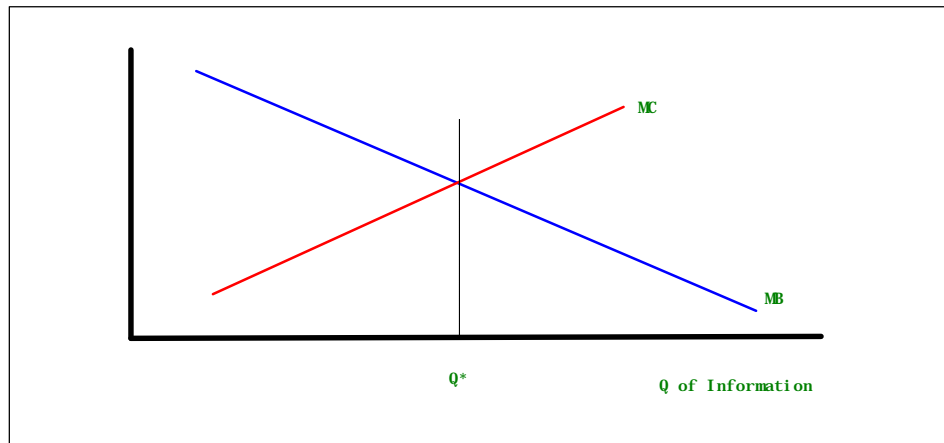
iii. In case in which the median voter's expectations are unbiased in spite of economizing on information, he/she will still on average get what he/she wants.

► However, if the voter systematically over or underestimates costs or the marginal cost or benefits of public program, the median voter will make systematic mistakes--and so not get the government programs that actually maximizes his or her net benefits.

► Downs suggests that this biases decisions away from the provision of public services, because benefits tend to be under estimated.

► Tullock suggests that this biases decisions in favor of expanding services because the true cost of taxes (their true tax price) is so difficult to estimate.

C. One of the key issues in the rational ignorance model is why voter's gather information about the candidates.

i. The early models often assumed that voters collected information only because it helped them make an informed choice when voting.

a. This representation of voter interests implies that voters will collect almost no information about candidates because the probability of their vote being decisive is so small.

b. This implies that the marginal benefit of additional information about candidates is also very small.

ii. Of course, there are many other reasons why voters might chose to learn about candidate policies (Congleton 2001):

► Political discussions with friends may be entertaining, and being well informed may make such discussion more pleasurable.

► Many personal investment decisions are affected by public policies and knowing more about such policies may help one make better investment decisions both in the stock market and in one's personal stock of "capital."

► For example, voters may collect information about public programs because they affect their own private plans. A new road or train station may affect decisions to purchase a new car. A person's stock portfolio might be adjusted if a new airport or building program is to be subsidized, etc.

iii. Thus **voters may gather quite a bit more information** than the early "natural" models suggest.

D. A Digression on Fiscal Illusion

i. **Fiscal illusion** exists whenever voters have **systematically biased estimates** about the costs and benefits of government programs (although voters may still reach somewhat different conclusions).

a. As noted above:

► Antony Downs argues that the benefits of government programs are often fairly indirect and diffuse, so that people tend to under estimate the benefits of many programs.

► And, Gordon Tullock argues that tax payments are similarly often indirect and difficult to assess (remember tax burden is not the same thing as direct tax payments). It is difficult for most voters to assess their true tax burden, and most times indirect taxation will cause voters to under estimate the cost of government services.

ii. The effects of fiscal illusion on voting can easily be represented with the following diagram in which MC is underestimated by the voter and so he or she favors

higher services than actually maximize his or her net benefit..
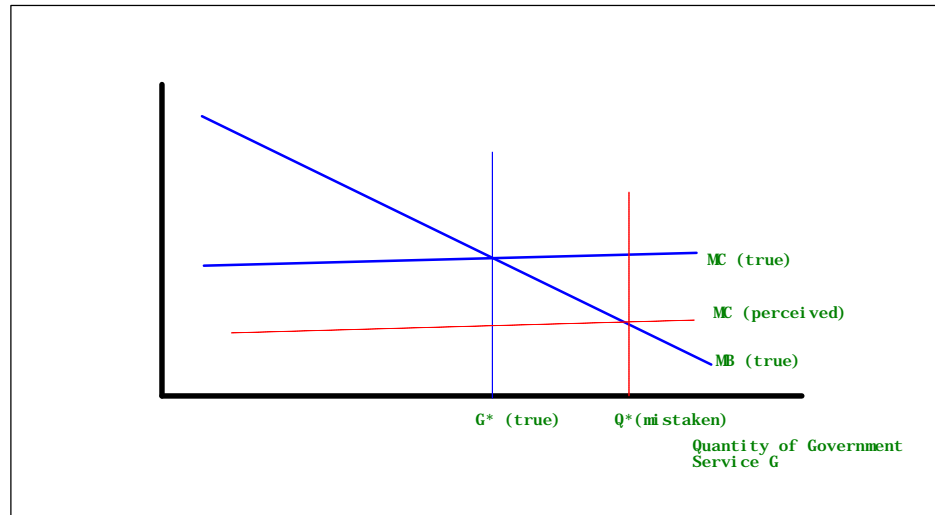
iii. Fiscal illusion can cause voters to vote for overly large or overly small programs.

► The direction of the mistake depands on the type of bias their estimates have.

► For example, if they under estimate costs (as in the figure above) they will demand too much of the public service.

► On the other hand, if they over estimate costs, they will demand too little of the public service.

► Systematic errors in costs or benefits are very likely to induce voters to vote against their own true interests.

iv. In the end, the extent of this bias probably varies by program insofar as the benefits or costs of particular policies and programs are especially easy or hard to measure.

IV. Rational Ignorance and Electoral Outcomes

A. It bears noting that the simple fact that voters economize on information does not, by itself, imply that voters have fiscal illusion, nor that electoral outcomes will be as poorly informed as voters are.

i. Voters could base their expectations (estimates) on fairly small but "complete" samples of information and so still, on average, predict the right marginal benefit and marginal cost curves.

► Such voters will make lots of mistakes because their estimates are very imprecise.

► But as long as they have sufficient information to make unbiased estimates, on average, they will get the right bundle of public services.

► (See the Condorcet Jury Theorem below)

ii. However, if voters economize on information costs by remaining completely ignorant (collecting no data) about some important policies or candidate characteristics, they are very likely to make biased estimates of their marginal benefits and/or costs.

► In such cases, fiscal illusion can be a serious problems, because voters vote for the wrong candidates or policies.

► Consequencely, many public service mistakes may be made in the sense that the median voter is made worse off by the policies adopted.

B. Fortunately, the first kind of information problem (small compleet samples and consequently imprecise estimates) is reduced by a property of majority voting that is called the **Condorcet Jury Theorem.**

i. "Condorcet's Jury Theorem" implies that if voters have unbiased (and symmetrically distributed) the process of voting under majority rule tends to "aggregate" the information possessed by voters and, consequently, the final choice is far more "informed" than that of any single voter.

► In this case the distribution of voter "preferences" is based at least in part on differences in voter estimates based on the information they have available.

► The median of this distribution is, thus, partly determined by the median estimate of the voters in the electorate.

ii. Elementary statistics implies that the **median of a distribution of estimates can be an extremely accurate estimate of the parameter of interest** (for example candidate or program quality).

► That is to say, if most voters have enough information to make unbiased estimates of candidate quality, the outcomes of majority rule will be far less error prone than the estimates of a "typical" voter.

iii. On the other hand, if many voter estimates are biased because they remain ignorant of important policy details, the information aggregating ability of majority rule declines, and electoral mistakes increase (Congleton, forthcoming).

C. Another implication of rational ignorance occurs when voter ignorance differs among voters.

  i. If voters are informed about some issues and not others, it is only the issues on which they are at least somewhat informed that candidate positions matter.

  ii. In this case, candidate positions designed to win elections will be influenced by different groups of more informed voters on various policy dimensions.

    a. For example, car owners may investigate candidate positions on highway expenditures but not mass transit. While those not owning cars may collect information about mass transit, but ignore highway budgets.

    b. Candidate positions will in this case converge to the medians of the informed subsets of the electorate, one issue at a time.

    c. In this case, no single person determines the electoral result, because each policy issue is decided by different median (informed) voters.

  iii. Note that insofar as voters tend to be more informed about policies that affect their own direct interests.

    a. This tends to produce electoral outcomes that look like they were designed to please special interest groups (or at least median members of special interest groups).

    b. It also produces outcomes that tend to reflect groups with unusually high net benefits (because such folks are those who become informed), which tend to bias policies away from median voter results in much the same manner that fiscal illusion does.

     ► The outcomes are "moderate" as implied by the median voter literature, but in this case "moderate" for the pool of informed voters who take account of particular issues.

     ► On the other hand, the median of a pool of particularly interested voters could be an outlier for the population of voters as a whole.

V. Rational Ignorance, Agency Problems, and Special Interest Groups

A. Note also that **if fiscal illusion can be created**, by strategically **subsidizing particular kinds of information** (even accurate information), this opens a door through which politically active interest groups may affect public policies.

► If voters are not fully informed, it is clearly possible that "persuasive campaigns" by interest groups and political parties may change a voter's "information set" in a manner that increases voter error by introducing biases into his or her estimates of program benefits and costs.

► This might be argued for some of the persuasive campaigns of green groups and business groups as well.

B. Rational ignorance also implies that some representatives and bureaucrats can "cheat" on their campaign promises to the electorate and not be punished for it.

  i. Voters can never fully monitor what is going on in government after or before an election because time and attention are scarce resources.

    ► In this manner, rational ignorance reduces the cost of malfeasance (what many call agency costs) on the part of elected and unelected government officials..

    ► Rational ignorance implies that many subtle forms of malfeasance are unlikely to be detected or punished by voters.

  ii. The "agents" of the electorate (median voter) will have more freedom to chose policies than pure election models seem to imply.

    ► That is to say, elected officials and their appointed agents can adopt some policies that do not advance the median voter's interest without losing the next election or being fired, because the median voter never notices.

C. The latter is not necessarily evidence that democracy "doesn't work," but rather that it does not always yield perfect median voter results even when elections are competitive and the strong version of the median voter theorem holds.

    ► (We will spend some more time analyzing the effects of interest groups in a few weeks.)