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## Second Reply to Caplan: The Power and the Glory of the Median Voter

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CONTINUATION OF THE EXCHANGE BETWEEN BRYAN CAPLAN AND DONALD WITTMAN FROM THE APRIL 2005 ISSUE OF *EJW*.

[Caplan Comment on Wittman \(April 2005\)](#)

[Wittman Reply \(April 2005\)](#)

[Caplan Rejoinder \(August 2005\)](#)

**IT IS ALWAYS A PLEASURE TO HAVE THE LAST WORD. I WILL NOT** make a point-by-point counter-argument to Brian Caplan's Rejoinder (2005b) because doing so would exhaust my patience, as well as the readers' (but probably not Caplan's). Instead, I will present some general arguments that can be employed in answering a variety of questions. In my response I will: explain why there is a demand for democratic failure theories; predict which voters will appear to act irrationally; explain why evidence of voter irrationality does not imply that government policy is irrational; show why Caplan's argument that voters are rationally irrational when they vote does not conform with the facts; and suggest empirical tests that might be employed to gain greater insight into voter behavior.

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## THE DEMAND FOR THEORIES OF DEMOCRATIC FAILURE

Suppose that government policies reflect the preferences of the median voter. Because very few people are actually at the median, most people are, to varying degrees, bothered by government policies. If you are one of the disgruntled, then you face the following conundrum: I know what policy is best, but the government does not choose that policy.

Your solution to this puzzle might be that preferred policies are just revealed preferences and there is no accounting for tastes. Alternatively, you might say that the median voter knows more than you do. But I suspect that the following responses are more commonly employed: (a) the median voter is irrational and/or uninformed or (b) the system does not reflect the *true* median voter's preference, which of course coincides with your own preference. As a result, we find people on both the right and left criticizing the same government policy for being too far to the left and for being too far to the right. So the only thing that both sides agree on is that there is a political failure. Of course, the reasons for the failure are inconsistent (news sources are said to be biased to the right or to the left, depending on one's own political biases). Hence, we have an explanation for the demand for theories of democratic failure.

## DIFFERENTIAL RESPONSE TO ELECTION CHOICES

Because voters differ in their preferences, we can generate more interesting hypotheses than the hypothesis that extremist voters are the most disgruntled with government policies. For example, consider the following: A voter whose position is between the candidates' positions needs to gain more accurate information than a voter whose position is extreme. In order to make the correct decision, those in the middle, who are close to being indifferent, will want to get their information from less biased sources or from a basket of sources that are on average unbiased. In contrast, those voters with extreme preferences do not need more information to decide which candidate is best as long as they know which candidate is to the "right" of the other (this information is not sufficient for those in the middle). Such extreme voters are more likely to want reassurance in their beliefs and thus choose biased information as their

source. As a result, voters with extreme preferences may have very exaggerated views on the differences between the candidates, or on how far away both candidates are to the left (or to the right, as the case may be). But given their position, extremist voters would be very unlikely to change even if they were correct in their beliefs.

Despite such “irrational” beliefs held by extremist voters, I will now argue that the election outcome reflects the preferences of the median voter who, as suggested above, is more likely to have unbiased beliefs.

### **THE MEDIAN VOTER: WHY VOTER IRRATIONALITY MAY BE UNIMPORTANT**

In the United States, legislators and presidents are chosen by plurality rule. If one believes in the Downsian model, where candidates are only interested in winning, then elections will tend to elect candidates who are at the median voter. If one believes that candidates have policy preferences, then candidates may move away from the median voter; but the more informed the voters and candidates are, the less the movement away from the median voter will be (Wittman 1983). Let us stick with the Wittman version, but note that in either model the median voter determines the outcome.

The important role of the median (or near median) makes many irrational voter results close to being irrelevant.

Suppose that many citizens are completely uninformed. If these uninformed citizens are rational, then they will not vote (there is strong empirical evidence to support this contention). So the result will be close to the median of the informed voters. Abstentions by the uninformed involve some movement away from the median overall, but perhaps not significantly so.

Suppose instead that these uninformed voters are also irrational—that is, they vote against their own best interests. Unless the voters on one side of the median are significantly more irrational than the voters on the other side, then such irrationality will again have a modest impact on the outcome. Being an uninformed or irrational voter is a lot less dangerous than being an uninformed or irrational consumer because a large number of voters have to be uninformed or irrational in the same way to have an effect on the outcome. As a result, we may expect that there will be more

uninformed and irrational voters, but because of the law of large numbers and the median voter result, the impact of such irrationality is likely to be modest.

Furthermore, because of the discrete nature of the choice, voters on the extreme left or extreme right need know very little, except which candidate is on the left and which candidate is on the right (see Wittman 2005b). Hence, these committed partisans need little information. Indeed, as argued above, they may be wrong about a number of details, but being knowledgeable would not change their choice. So being uninformed—but not completely so—is perfectly sensible when voters have convex preferences. The additional information is extremely unlikely to change the cost-benefit calculations. Of course, the same does not hold for people in the middle (who will want to be informed). So once again, lack of information by many of the voters does not imply democratic failure.

Caplan mentions a number of surveys where the average response is far from the truth (for example, the average voter overestimates the cost of welfare). Caplan argues that this shows that voters do not have rational expectations. Sticking with the median voter model, we can see that even if the average estimate of the cost of welfare is far from the truth, this does not make any difference if the median voter is close to the mark. Suppose that the percent of the federal budget for Medicare is 3 percent. Some people will underestimate it, but such under-estimates are limited to 3 percent; others may overestimate the percentage and some of these overestimates could be 10 percent or higher. As a result, the average could be considerably above the true value, but this is not relevant if the median voter is correct. While the median and the mean often coincide, this seems less likely to be true in the survey questions that Caplan considers.

In a nutshell, the median voter may have rational expectations even if many of the voters are irrational and uninformed and the average voter has incorrect expectations.<sup>1</sup> Thus, survey evidence that that the average voter is mistaken regarding the cost of welfare is useful, but not compelling.

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<sup>1</sup> In doing empirical work one should not conflate the median voter with the independent voter. Some voters are between the preferences of the candidates and therefore might choose to not be affiliated with either political party. Other voters don't care much about electoral politics and therefore might not bother to know much of anything about politics including which party best represents their interests. These voters too are independents.

### WHAT DO THE DATA MEAN?

I have no doubt that there are cases where even the median voter is mistaken. The question is what to adduce from these examples. A guide (whether good or bad) is to see how we deal with the analogous situation in economic markets. As I noted in my first reply, many consumers seem irrational or misinformed when they buy Ginkgo Biloba and Echinacea. Yet I doubt that many economists would conclude from this evidence that economists should give up on the standard model of rational consumer behavior.

To gain additional insight, let us consider stock market behavior. According to economic theory the expected price of tomorrow's stock is equal to today's price.<sup>2</sup> If we were to look at a time series of stock prices and regress stock price for day  $t$  on the price of the stock in day  $t-1$ , the coefficient of yesterday's stock price would not be 1 as predicted by the theory, but *significantly* different from 1 (even when accounting for the implied interest rate).<sup>3</sup> Should we conclude that investors are irrational and that psychologists and sociologists should be teaching finance instead of economists? I think that the answer should be no. The contrary theory, irrationality, does not give us any precision.

Next suppose that there was some empirical regularity such as the February effect where the rate of return was higher for stocks on the American Stock exchange that were purchased in February. Furthermore, suppose that some psychologist came up with a theory to explain the February effect (perhaps people were more optimistic after Valentine's day). Even if the results were statistically significant, we would not consider this as a general theory of stock behavior, because the data was specifically selected to test the theory.

Now let us turn to politics and apply the same standards. Suppose that rational voter theory predicts that the median voter's perception should be an unbiased estimate of the true expenditure on a government program. Suppose that the median voter's beliefs were significantly different from the

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<sup>2</sup> Because of the limited resources and risk aversion, the price of a stock depends on marginal buyers and sellers not the average buyer and seller of stock (even after weighting for the amount of stock ownership). So here too, the outcome depends on the pivot rather than the average.

<sup>3</sup> The intercept would also be significantly different from 0 contrary to the theory. I consider the coefficient to be close to 1, but the standard for being close may vary across individuals and across situations.

true value. Does this imply that we should throw out the rationality theory for the uninformed irrational voter hypothesis? No, for the same reason we did not throw out the efficient market hypothesis when the coefficient of yesterday's price is significantly different from 1. The alternative theory of voter irrationality is unlikely to give us any precision. So voter rationality may be the best explanation going even if it does not always give us accurate predictions.

And of course it is statistically incorrect to prove one's case by choosing examples to fit one's arguments, even if the examples are "statistically significant." This is not to say that promoters of rational voter behavior have not data mined, as well.

### **ARE VOTERS IRRATIONAL BECAUSE THEIR VOTE DOES NOT COUNT?**

Because individual voters have virtually no effect on the outcome of the election, there is little cost to their being irrational when they vote. Caplan argues that this implies that voters do in fact act irrationally. In both essays, Caplan (2005a, 2005b) refers to the work on expressive voting by Brennan and Lomasky (1993). Their argument is that voters treat voting as being expressive rather than instrumental. While the connection between expressive voting and being irrational is tenuous (one could be irrational without being expressive and vice versa), I too will consider expressive voting.

There are several steps in the logic of Caplan's argument that can be subjected to empirical investigation. The first and perhaps most important step is whether voters act as if their vote does not count.

The evidence is to the contrary—most voters treat voting as instrumental—that is, they act as if their vote counts. In the United States, only a very small percentage of people vote for a candidate other than the two leading candidates. Very few people waste their vote by expressing their preference for a third candidate even if they prefer this candidate (of course, often there is not a third candidate in the first place, precisely because voters are so instrumental). It is true, that in the 2000 election enough people voted for Nader to cause Gore to lose the election. But in the 2004 election, the argument that the democratic candidate was no different from Bush no longer held sway, and as a result very few voters

voted for Nader even though Kerry was no farther to the left of Bush than Gore had been. Even if we were to say that Nader voters were irrational in the 2000 election, they certainly learned their lesson fast. So the evidence suggests that an overwhelming majority of voters act as if their vote counts. The evidence is in favor of voters being instrumentally rational and against their being rationally irrational.

As I suggested in my previous reply, whether individuals act more irrationally when their vote has little probability of affecting the outcome can easily be tested in an experimental setting. One can have the subjects vote (or abstain) on a logical or empirical question. The experimenter can then observe whether the median voter's accuracy deteriorates as Caplan argues or improves as I argue as the size of the electorate increases (say from 3 to 5 to 15 to 100 voters). I think that we all know the answer to this even in the absence of an experiment.

As I understand it, Caplan does not like this test because the voters are not emotional and irrational about logic, but they are emotional and irrational about politics. Presumably, the most emotional and irrational voters are those in the extreme, particularly those who vote for candidates, like the libertarian candidate for president, who has no chance of winning.<sup>4</sup> From the opposite perspective, the median voter is likely to be the most rational. And, if we believe the median-voter models, then the irrationality of the extremes has at best a modest effect.

## EMPIRICAL TESTS

Caplan raised two general issues in his original critique: (1) the existing empirical evidence shows that voters do not have rational expectations and (2) more empirical work on voter behavior is needed. With regard to the first point, I have argued both here and in my previous response that Caplan's evidence is not persuasive.

I agree with Caplan's second point and therefore I made an effort to devise some interesting empirical hypotheses about voter behavior. These empirical hypotheses were inspired both by Caplan's rational irrationality hypothesis and by my argument that candidates try to appeal to the median voter. Indeed, the empirical hypotheses concerning extreme players are

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<sup>4</sup> In case you miss the point of this sentence, check out Caplan's webpage.

generated from the fact that median voters are the pivotal players and close to being indifferent between the two candidates while extreme voters are neither pivotal nor close to being indifferent and therefore bias is not costly.

Caplan finds something wrong with almost all of my proposed tests. I suppose that this is inevitable whenever two people have opposing views. They cannot even agree on a test. Nevertheless, in response to his criticisms, I have tried to adjust some of my hypotheses to take into account his concerns.

Hypothesis #1: Those people who overestimate the cost of a program (say foreign aid) are more likely to be against the program than those people who underestimate it, both before and after they are given the true facts of the situation.

Caplan argues that the respondent might not believe that the true facts are indeed true. In order to get around this issue, I propose the following alternative version to #1.

Hypothesis #1':

- A. Ask subject the cost of a federal program (say foreign aid).
- B. Ask subject how strongly the subject supports the program: (2 strongly positive; -2 strongly negative).
- C. Ask subject whether he/she would support the program if the cost were \$X. (X is the true cost of the program, but the subject is not informed that this is the case).

My hypotheses are:

- a) That the stronger the support, the lower the estimate of the cost of the program. That is, A and B are negatively correlated; and
- b) Those who strongly overestimate (underestimate) will be less likely to change their mind given the conditional statement in C.

Hypothesis #6: Scan the brain and see whether voters use more primitive (and presumably more emotional and less rational) centers of the brain when voting than when making purchases.

Caplan argues that irrational ideology arises from the more advanced centers of the brain because animals do not have political ideology. Why don't we do a brain scan and see what differences there are, if any, between voting and buying (or solving crossword puzzles)? Caplan and I can fight about the interpretation later.

I have suggested that, other things being equal, voters who are close to being indifferent are more likely to seek (unbiased) information than voters who are strongly partisan. This too could be tested.

### CONCLUDING REMARKS<sup>5</sup>

In this paper, I have argued that the median voter is rational even if other voters are not. For a variety of reasons, including the difficulty of deciding what is rational (see Wittman, 2005a) and the lack of convergence on this issue between Caplan and myself, I believe that this debate will not be resolved in the near future.

In this and the previous response, I have tried to move the debate about voter rationality to a different level by suggesting a number of new hypotheses about voter behavior. Some of these hypotheses are only indirectly related to the question whether the median voter has rational expectations. I hope that these hypotheses will inspire others to conduct empirical research along these lines, as I have more confidence that such research will be conclusive (one way or the other).

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<sup>5</sup> Caplan's concluding statement says that he and I are engaging in a debate about the relative merits of democracy versus economic markets. I do not agree. I have never argued that democratic markets are in general superior to economic markets. Instead, I have argued that democratic markets will tend to let decisions be made by economic markets when economic markets provide a superior outcome.

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