



DISCUSSION NOTE

TUCK ON THE RATIONALITY OF VOTING: A CRITICAL NOTE

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Tuck on the Rationality of Voting: A Critical Note

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RICHARD TUCK WANTS TO SHOW THAT it is rational to vote.¹ Mancur Olson argued that it is irrational to vote because individual votes have little or no causal power over electoral outcomes. Tuck wants to prove that Olson is mistaken. Tuck argues some votes are causally efficacious. However, even if Tuck succeeds in showing that some votes are causally efficacious, all this does is undermine part of Olson's worry about whether voting is instrumentally rational. Showing that votes are causally efficacious is not sufficient to show that voting is rational. Tuck fails to show that it is rational to vote except in unusual cases.

1. The Causal Efficacy of Individual Votes

Tuck argues that individual voters can cause an electoral outcome, even when their votes were not necessary to cause the outcome, because their votes have a chance of belonging to the "causally efficacious set of votes." The causally efficacious set of votes is the subset of votes needed to win the election. Suppose that 10,000 people vote for A and 3,999 people vote for B. If so, 4,000 votes for A were necessary for A's victory; the other 6,000 votes were superfluous. Four thousand votes is the causally efficacious set of votes – these are the votes that won the election. The probability that a random voters' vote formed part of the causally efficacious set is 40%.

Tuck argues that when elections are close, the probability that one's vote is in the causally efficacious set is high. The idea of the causally efficacious set is meant to diffuse the common worry that a voter wastes his time casting a vote with no causal effect on the outcome of the election. On Tuck's view, the voter can tell himself, "There is a high probability that my vote, when combined with the others, helped produce the desirable outcome. It was important that we reach 4,000 votes, and given that I knew others would be voting for A as well, this gave me a good instrumental reason for voting for A, even if my vote was not necessary." Voting is an effective way of producing an outcome the voter desires.

To see if Tuck's argument works (in showing that it is rational to vote), we need to consider two kinds of potential voters. A *Type-1 Potential Voter* desires not merely that a good electoral outcome occur, but also desires that she be causally responsible for the outcome of the election. A *Type-2 Potential Voter* cares only that the good electoral outcome occurs. He attaches no special value to being the agent of causation. I will argue that Tuck can sometimes show that it is rational for Type-1 Potential Voters to vote, but he cannot show that it is rational for Type-2 Potential Voters to vote.

¹ Richard Tuck, *Free Riding* (Cambridge, MA: Harvard University Press, 2008).

2. The Desire to Be Efficacious

Let's say I am a Type-1 Potential Voter. I not only desire to see a good electoral outcome occur, but also I desire to help bring about the outcome. Tuck argues that it can be rational for me to vote, provided I have high enough probability of being in the causally efficacious set.

Tuck cannot use the probability of being efficacious alone to determine whether voting is rational. Instead, to determine whether it is rational for people who care about being causally efficacious to vote, we need to multiply A) the probability that one's vote will be in the causally efficacious by B) the value of being in the efficacious set, i.e., we use a formula like 1:

$$(1) U_i = p(i \in K) \times V_i(i \in K)$$

where

U_i	=	the expected utility of voting
$p(i \in K)$	=	the probability that my individual vote is a member of the causally efficacious set
$V_i(i \in K)$	=	the utility of my individual vote being a member of the causally efficacious set

One problem with this formula is that there is no obvious way to determine what $V_i(i \in K)$ is or should be.² How much value is there in my vote being in the causally efficacious set? This will vary from person to person, based on how much they happen to care about being efficacious. At best, Tuck's argument so far shows only that it is rational for some people to vote some times, if they happen to care enough about being causally efficacious.

However, this ignores the issue of opportunity cost. It is rational for any given person to vote only if U_i in formula 1 is higher than the expected utility of other available actions. Suppose that I value being causally efficacious at \$50, I value watching the three Godfather movies on election day at \$40, and the probability my vote will be in the causally efficacious set is less than 80%. If so, then the expected utility of voting is less than the expected utility of watching the movies. If so, then it is not rational to vote, even though I care about being in the causally efficacious set. So, Tuck can show it is rational to vote provided 1) one desires to be efficacious, but only if 2) one has nothing better to do with one's time when one votes.³

² One might try to argue that it has some objective value as follows: If the causally efficacious set has N members, then each vote in that set has 1/Nth the utility of the outcome the set causes. This could imply that individual votes potentially have high expected and actual utility. (Suppose Obama were worth \$10 trillion more to the public good than McCain. If so, then an Obama vote in 2008 would be worth almost \$150,000 by equation 1.) However, Tuck rejects this possibility. See Tuck 2008, 40-43.

³ Also, it is possible that there are other ways of being efficacious besides voting, and perhaps some of these other ways deliver more causal bang for the buck. For instance, Stephen Colbert arguably exerts more causal influence over electoral outcomes by making a snide remark than by casting a vote.

3. Tuck Has the Wrong Theory of Rational Choice

Type-2 Potential Voters do not desire to be causally efficacious, but they have preferences over which electoral outcome obtains. Tuck cannot show that it is rational for Type-2 Potential Voters to vote, except in unusual circumstances.

If people do not desire to be causally efficacious, then formula 1 cannot explain why they should vote. Still, Tuck wants to prove that it is rational to vote, in many cases, even when people do not desire to be causally efficacious. That is, he wants to show it can be rational for me to vote even if for me $V_i(i \in K) = 0$, i.e., even if I am a Type-2 Potential Voter. Suppose I desire that candidate A is elected, but I do not attach any value to me helping to cause A's election. Tuck wants to argue that it is rational for me to vote simply because I have a good chance of producing the outcome by voting. Tuck says that by voting I (sometimes) have a high enough probability of doing something sufficient to produce the outcome I desire.

Tuck wants to show voting is rational without jettisoning or modifying common theories of rational choice. Tuck wants to prove Olson is wrong about the rationality of voting not because Olson has the wrong theory of rational choice, but because Olson is wrong about the causal efficacy of votes.⁴ Tuck says that Olson has incorrectly assumed that the causes of events must be necessary for those events. In contrast, Tuck wants to show that causes must only be minimally sufficient. Yet, even if individual votes do have the causal efficacy Tuck claims they have, this does not prove that voting is rational. In fact, Tuck accepts the wrong theory of rational choice.

Tuck says to the second kind of potential voter (the one that wants an outcome to occur but attaches no value to producing it) that he should vote because voting will achieve his goal. Tuck thinks that if F-ing is sufficient to produce a desired outcome, then it is rational to F. Tuck claims that it is rational to vote, even if you do not care about being causally efficacious, because by voting (if enough others also vote) you can do something sufficient to produce the outcome you desire. Tuck says that the "essence of instrumental action is...that we do what is a *means* to an *end*, that is, *causes* it."⁵

This is an incorrect account of rational choice. Rational agents are not defined simply as creatures who do what is sufficient to produce their ends. Tuck appears to subscribe to a problematic view of rational choice, which Gerald Gaus calls "Rationality as Effectiveness" (RE):

RE: Alf's action [F] is instrumentally rational if and only if F-ing is an effective way for Alf to achieve his desire, goal, end, or taste, G.⁶

⁴ Cf. S. M. Amadae, "Richard Tuck's *Free Riding*," *Ethics* 119 (2008), 211-216.

⁵ Tuck 2008, 54. See also p. 32.

⁶ Gerald F. Gaus, *On Politics, Philosophy, and Economics* (Thousand Oaks: Sage, 2008), 8.

The problem with Rationality as Effectiveness is that the mere fact that F suffices to produce a desired outcome does not make it rational to F or irrational not to F. RE is both too restrictive and too permissive an account of rationality.

It is too restrictive because it implies that even if you have overwhelming evidence that F-ing will lead to G, if you F and F-ing happens to fail, then you were irrational to F. For example, suppose you have cancer, but you take SuperCure MiracleDrug, which costs \$1 and is 99.999% effective at curing cancer. According to Rationality as Effectiveness, if you happen to be the 1 out of 100,000 who is not cured by SuperCure, then it was irrational for you to take SuperCure. But that is not right. Rather, taking SuperCure was clearly a rational choice, but not all rational choices pay off.

Rationality as Effectiveness is also too permissive a theory of rational choice. Suppose you want to be richer. You spend all of your money, \$100,000, on a bet that has a 1 in a 1,000,000 chance of earning you an additional \$1. Fortuitously, you win, and so now have \$100,001 instead of \$100,000. Rationality as Effectiveness implies that it was rational for you to make this bet, but clearly it was not. It was a dumb bet, but sometimes dumb bets pay off.

So, one problem with Tuck's argument that it is rational for Type-2 Potential Voters to vote is that, contrary to Tuck's intentions,⁷ he appears to be working with a different theory of rationality than Olson. Tuck sees himself as criticizing Olson's theory of causation but as working with Olson's theory of rational choice. However, in fact, Tuck appears to accept Rationality-as-Effectiveness, but this is a controversial theory of rational choice, and there is no good reason to think Olson accepts it. After all, Olson not only complains that voting is causally inefficacious, but also complains that the expected costs of voting are less than the expected benefits. Olson most likely subscribes to the theory of rational choice closer to what Gaus calls Instrumental Rationality (IR):

IR: Alf's action F is instrumentally rational only if Alf chooses F because he soundly believes it is the best prospect for achieving his goals, values, ends, etc.⁸

IR is a more plausible theory of rational choice because it takes into account opportunity costs in decision-making. Rational agents do not merely desire to be effective in securing their ends, rather, they wish to economize among their goals.

4. Tuck's Theory Implies Abstention is as Good or Better than Voting

⁷ See Tuck 2008, 101.

⁸ Gaus 2008, 11.

Recall that the Type-2 Potential Voter prefers that A be elected instead of B, but he attaches no special value to his helping to cause A to be elected. Suppose we grant Tuck that voting is rational because it is sufficient, given how other voters vote, to produce a desired outcome. Tuck has not thereby shown that it is irrational for this second kind of voter to abstain. For this second kind of voter, given how other voters are voting, abstention is also sufficient to achieve his goal. Given what other voters are doing, voting for A and abstaining from voting for A are both sufficient for A to be elected. So, Tuck's argument seems to imply that Type-2 Potential Voters have reason to vote, but equally good reason not to do so.

Actually, this is too charitable to Tuck. Suppose Alf has exactly one goal – to see A elected. Tuck may have shown that it is rational for Alf to vote, though it is not irrational for him to abstain. However, suppose Bob has two goals – to see A elected and to watch television. It is thus *irrational* for Bob to vote. Voting and abstaining are both sufficient to produce his first goal, but voting takes time away from achieving the second goal. Bob best satisfies his two goals by watching television and abstaining from voting. Voting for A and abstention are not equally rational for Bob. Voting has an opportunity cost, but watching television has no opportunity cost. So, if Bob follows Tuck's theory of rational choice and does whatever is sufficient to produce his goals, he will abstain. Abstention is sufficient to produce his two goals, but voting is not.

Thus, Tuck's argument implies that it is rational for Type-2 Potential Voters to vote only if they have no opportunity cost whatsoever in voting, and even then, it implies that voting for one's preferred outcome and abstention are equally rational strategies for achieving one's preferred outcome.

5. Summary

To review, if we grant Tuck his theory of causation, he has at best shown that voting can be rational under these limited conditions: 1) The agent desires that an electoral outcome occur, 2) by voting, there is a high probability that the agent's vote will be causally efficacious, 3) the agent attaches significant value to being causally efficacious, such that 4) the value of being efficacious discounted by the probability of being efficacious results in voting having an expected utility equal to or higher than the expected utility of any other available action. He has also shown that it can be rational to vote even 5) if one attaches no value to being efficacious, but only on the condition 6) that voting has no opportunity cost at all. Even then, he cannot show that it is irrational not to vote – abstention is as good as voting. Of course, voting always has *some* opportunity cost, and so Tuck has not shown it is rational for people who do not care about being efficacious to vote.

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