

## **Rational Choice Theory in Political Science: Mathematically Rigorous but Flawed In Implementation**

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### **Introduction**

According to one of rational choice theory's prominent and more thoughtful contemporary exponents, Peter C. Ordeshook, "four books mark the beginning of modern political theory: Anthony Downs's *An Economic Theory of Democracy* (1957), Duncan Black's *Theory of Committees and Elections* (1958), William H. Riker's *A Theory of Political Coalitions* (1962), and James Buchanan and Gordon Tullock's *The Calculus of Consent* (1962). These volumes, along with Kenneth Arrow's *Social Choice and Individual Values* (1951), began such a wealth of research that political scientists today have difficulty digesting and synthesizing all but small parts of it. Consequently, the full value of this research often goes unrealized..." (Ordeshook 1986, ix)

In this essay I will argue that, contrary to Ordeshook's claim, the "full value of this research" has actually been overstated; not for the lack of profundity in the assumptions and certain selected observations contained in the literature mentioned above, but for the failure of rational choice theory in explaining political phenomena empirically. This failure can be understood in terms of the fallacies associated with rational choice theory's predictive and universalist aspirations, as well as in terms of the methodological misuse of the basic assumptions of rational choice theory when actually used in explanatory frameworks. As Donald Green and Ian Shapiro argue, the weaknesses of rational choice scholarship are rooted in the aspiration of rational choice theorists to come up with universal theories of politics, "which leads many rational choice theorists to pursue even more subtle forms of theory elaboration, with little attention to how these theories might be operationalized and tested—even in principle" (Green and Shapiro 1994, 6).

The two central questions that I will examine are why and how rational choice theory fails to adequately explain empirical political phenomena. First I will provide an overview of what rational choice theory is and why it has staked such a prominent position in the discipline of

political science. In this section I conclude that rational choice theory has indeed developed advanced methodologies at telling us how rational agents should behave. Then in my second section I will show, using the empirical case of the free-rider problem and collective action, as well as the case of suicide terrorism that rational choice theory cannot adequately account for actual political phenomena. In my third section I will provide some reasons for why this is the case. Finally, in my concluding section I will posit a theoretical framework incorporating some refinements to the assumptions behind rational choice theory that would better aid a predictive (but not universalist) political science.

### **What is Rational Choice Theory?**

Rational choice theory is actually more than one theory *per se*, but the basic similarities among its variants mean that they can be intelligibly amalgamated for the purposes of critiquing its implementation in political science. Therefore public choice theory, positive political science, rational actor models, and the economic approach to politics, among others, refer to what we may call rational choice theory for the purposes of this essay. (See Green and Shapiro 1994, xi. It should be noted that rational choice theory's defenders are unhappy about this conflation, but their contentions about the differences do not in any way strengthen their overall arguments.)

The foundational assumption of rational choice theory is the belief that *homo economicus* equals *homo politicus*. Drawing on Anthony Downs's *An Economic Theory of Democracy*, the starting axiom of rational choice theory is that self-interest is the cornerstone of political behavior (Downs 1957, 22). His thesis is an attempt to provide a rational behavior rule for democratic government, in the way that economics can provide rules for rational consumers and producers (Downs 1957, 3). *He admits that there is no a priori reason to suppose the human actions are rational*, but argues that we have to assume that they are rational if we are to predict and analyze human behavior (Downs 1957, 4).

Rationality is understood not in terms of "rational goals," but only in terms of rational means to achieve goals, i.e. efficient means, "maximizing output for a given input, or minimizing input for a given output," (Downs 1957, 5). He employs the notion of the "rational

consumer” from traditional economic theory (Downs 1957, 7). Therefore, we see that rational choice theory rejects the notion that political and economic activity remains separable (Ordeshook 1986, ix). Furthermore, modern rational choice theory has four other basic assumptions: methodological individualism, purposeful action, measurable, definite, and exhaustive outcomes, and the ability to order all preferences (See Ordeshook 1986).

Rational Choice theory has staked the dominant position in the discipline. Its proponents argue that: a) It is the best we have, and the only advance political science has made as a discipline; b) It makes possible a unified theory of politics and economics, so behavior does not have to be isolated into economic and political realms (Ordeshook would argue that the behavior cannot in fact be separated); c) Its conclusions, if trivial, are “true”, unlike the unscientific analyses of political theory, which may be about “important things”, but are *a priori* false, or not falsifiable because they are normative; d) Its methodological power renders area studies obsolete (the Robert Bates attack, in which he accuses area studies of being able to contribute absolutely nothing to political science); e) It makes a predictive and even universalist political science possible.

It is my reading, however, that the reasons rational choice theory dominates the discipline and shapes its directions have little to do with the veracity of its theoretical claims or the (very limited) success of its empirical analysis. Rather, the prominence of rational choice theory has to do with more dubious factors that have little to do with the analytical achievements of rational choicers: a) The Physics envy phenomenon; b) A desire to command the positions (and salaries) in academia and in the policy worlds that mathematically oriented economists have succeeded in obtaining for themselves; c) A misguided and widely shared obsession with “advancing” the discipline at the cost of actually trying to understand political phenomena; d) A successful way to get funding traditionally reserved for the sciences by positing scientific methodologies and conclusions; e) The odd belief that rational choice theories with simple, mathematically “beautiful” formal models must have some truth to them, since in physics and math, simplicity of conclusions is judged to be profound and, indeed, virtuous.

In addition, the complexity of the notation used by rational choicers makes it both difficult to challenge and helps give it an air of being more “scientific.” In other words, its status has been earned partially through confusion, perhaps even to the extent that there are cases similar to the 1996 Alan Sokal Social Text fiasco. (Except that these would be unintentional cases; the rational choicers would not like to admit that their published pieces in leading journals contain ridiculous claims, as Sokal had intentionally included in order to make a point about the paucity of intellectual substance in contemporary postmodernist literature.)

As Ordeshook says, “Most critically, much of this research uses the language of mathematics, which for some is unassailable and for others is an end rather than a means,” (Ordeshook 1986, x). The fact that he actually acknowledges quite clearly that some see methodology as an end in itself (although Ordeshook himself is not one of those) raises the question as to whether we can even consider their work as political science scholarship (of course, it may well be insightful in terms of its mathematics.) To be sure, those rational choice theorists who see their methodological work as an end rather than a means to an end do not represent the best of the discipline, and to critique this sub-field of formal theorists, which is not limited to rational choicers, would not accomplish anything significant since the goals of these theorists are fundamentally different from the goals of political scientists.

Let us not deny, however, the cumulative mental effort and the vast amount of scholarship over the last forty years in establishing rational choice theory as a complex and extensive system. As Green and Shapiro put it, “Only by dint of *hautes mathématiques* snobbery or technical aversion could one fail to be impressed by the analytic achievements of rational choice theory in political science. Each passing year witnesses some new extension or refinement in what has become a vast web of interconnected logical propositions. To all appearances, this immense deductive system would seem to furnish the rigorous, cumulative theory that has long been the El Dorado of social science” (Green and Shapiro 1996, 236).

Coupled with the insightful common sense assumptions about economic behavior that underlie its framework (Yes, it is likely the case that no one has ever washed a rental car), one might be tempted to conclude that indeed this is the best political science has achieved as a discipline.

Indeed, rational choice theory can succeed very well in explaining how regimes *should* behave if they are to stay in power. Rational choice theory offers powerful and well thought through explanations regarding the problems individuals have making decisions with uncertainty, and *how* to solve them rationally. However, the question is not whether rational choice theory offers sound explanations for how individuals and groups *should* behave; it is whether rational choice theory actually accounts for how they do behave.

### **How Does Rational Choice Theory Fail?**

Although rational choice theory offers insight in explaining some economic decisions, for example accounting successfully for consumer choice and the success of businesses that sell goods cheaper, it fails to explain adequately questions relating to political behavior. Rational choice theorists attempt to explain away anything that contradicts their framework by reworking what constitutes “rationality” to describe every sort of human action, regardless of the possibilities for complex and indeed “irrational” (economically) motivational factors.

For example, rational choice theory obviously faces obstacles in explaining altruism, so, of course, rational choice theorists simply argue that altruism must be seen in terms of self-interest. However, in this essay the question of what constitutes “true” selflessness is not the key problem; if we accept self-interest as a given, altruism can indeed be seen in terms of a measured calculus in fulfilling rational self-interest. The key problem is that once we leave the speculative grounds of what drives human motivation in different situations, rational choice theorists’ claims about the “rationally should” of human behavior do not hold up empirically to what people actually do. In order to establish this point, let us examine rational choice theory and its problematic relationship with collective action in general, the act of voting and the “free rider” problem, and rational choice and suicide.

#### a) Collective Action and Rational Choice.

Using the economist Schumpeter’s analysis, Anthony Downs concludes that “parties formulate policies in order to win elections, rather than win

elections in order to formulate policies,” i.e. the function of policymaking, the social function, is incidental to the party’s goals in the same way that production is incidental to the making of profits (Downs 1957, 28-9). For him there are three political decision makers: parties, individuals, interest groups (Downs 1957, 27). Now, as a starting premise for political behavior, as later taken up by Morris Fiorina, this may well be a perceptive analysis of the desire of politicians to seek and maintain power as their primary goal. However, rational choice theory’s emphasis on rational individual action poses a problem when we examine individuals who engage in collective action, which cannot be denied as occurring.

As Miller points out (if we accept the rational self-interest axiom), by emphasizing the free rider problem—why a rational, self-interested individual would engage in collective action when his/her impact is negligible and the benefits of collective action are public and free—rational choice theory correctly problematizes collective action. “However, its reliance on the essentialist *homo economicus* model of human nature, however, often leads to untenable solutions that do not consider nonstrategic forms of rationality, collective identity formation, and the crucial effects of place-specific social relations,” (Miller 1992, 22).

The problem of free-riding is not limited to voting in mass elections: the question is why would any rational individual aid any cause in terms of time or money if the individual could not decisively influence its outcome? Why not ride along, for free, since your individual effort is not going to be the key determinant of the outcome, and you can simply expect that it is the efforts of others that will bring about the results you desire? The fact that individuals do in fact vote, contribute money to political campaigns, attend rallies, and otherwise participate in activities with goals that are irrespective of any one individual’s participation is a phenomenon that rational choicers cannot adequately explain.

Rather, they avoid the problem by discussing only confirming evidence of their theory or by comparing the evidence only to trite null hypotheses. In order to escape problematic evidence, rational choice accounts also “expand what counts as a selective incentive,” by interpreting collective action as benefiting individual participants by enhancing their reputation, allowing them to express their convictions, entertaining them, or satisfying their sense of duty (Green and Shapiro 1994, 87; Friedman 1996, 7).

These reasons cited by rational choicers all seem like legitimate reasons why people engage in collective action, which is exactly the point: the economic criterion for what constitutes rationality for the rational choicers has been expanded by them into a series of criteria designed to include the vast spectrum of purposeful actions to fit the rational choice framework when in fact the framework is actually faulty and insufficient, which they simply won't admit. This is not an ad hominem attack based on the stubbornness of rational choicers; it is merely an argument that they either should acknowledge that their notion of rationality is fatally flawed in the practice of political behavior, or not expect their contentions about economic rationality translated into political action to be taken seriously.

b) The Free Rider Problem and Voting.

To be sure, contemporary rational choicers claim that their theories “do not *necessarily* predict zero turnout.” (See for example Susan Lohmann's “The Poverty of Green and Shapiro” in Friedman 1996, p. 149. The fact that “do not *necessarily*” is an incredibly lame and unsure defense is another issue.) Nevertheless, what remains is that voting is a major paradox for rational choice theory. In actual elections with a large electorate, it is instrumentally irrational for anyone to vote, since no single vote has more than a  $1/\text{Very Very Large Number}$  (infinitesimal) chance of deciding the outcome. Whatever the voter's ends (selfish or not-selfish), any activity in pursuing these ends would be more effective than the time spent voting, educating oneself about the issues, candidates, etc.

Rational choicers agree that voting has a heavy opportunity cost. Yet hundreds of millions vote; this seems to be a serious anomaly for rational choice theory (See Green and Shapiro 1994, Chapter 4). Explanations posited for herd behavior by rational choice theorists are insufficient to account for the whole picture. (For example, the 1960s rational choice defense by Riker and Ordeshook regarding voters voting “out of a sense of civic responsibility”: While this may be one of the reasons why some voters vote in some elections in some locations, it is clearly an asinine explanation by itself.)

The usual response of rational choicers has been to modify their theory, post hoc, by defining the selective incentives to vote in terms of

material and non-material benefits, dating back to Riker and Ordeshook's claim about voters exercising their civic duty, and including other varied claims about various psychic benefits obtained by the individual from the act of voting. Therefore rational choicers change their predictions about voting behavior from no turnout to massive turnout; in doing so, of course, straying completely from the concept of rationality they purport to be responsible for political behavior. Again, the problem is not that the reasons they cite for why voters actually vote are flawed; there is truth to them, when taken in combination. The problem is that the very reasons they cite contradict their economic-political synthesis and "rational" assumptions. This brings us to the issue of suicide and the problems it poses to the notions of rationality.

c) Rational choice theory and suicide

First, it is worth asking the question of whether suicide can be understood as rational for an individual. The answer is yes, in two cases: If individual life has no perceived value and the rewards of suicide are measurable (whether for a cause, or for rewards in the afterlife). Also, in the case of attempted suicide, the argument has been made that an attempted act of suicide can bring material rewards and psychological comfort from shaken family members that make the act of trying to commit suicide rational.

Nevertheless, regarding the case of the decidedly political suicide terrorism of September 11, the question arises of whether this represents a pivotal weakness in rational choice theory, since it is clear that rational choice theory fails to account for politically motivated suicide in its definition of economic self interest. It might seem though that criticizing rational choice theory for failing to account for everything under the sun is to fall prey to the same universalism that is at fault in the claims of rational choice theory: namely, we would be criticizing rational choice theory for failing to account for behavior that is specifically outside its stated scope, which, according to the likes of Downs, should not at all account for non-economic factors.



However, the very purpose of rational choice theory should be to account for individual political actions, if rational choice theory has any value at all in trying to explain politics. Therefore, suicide terrorism aimed at political targets, such as the September 11 attacks, does expose a pivotal weakness in rational choice theory in that it shows that we cannot account for such individual actions in terms of the claim that *homo economicus* = *homo politicus* for the individual: politically motivated suicide calls into question the fundamental assumption upon which the theory is based.

Sure, terrorists may have had broadly construed economic goals in aiming to destroy the most striking symbols of American capitalism, and this could be twisted into some kind of “rational” framework; yet the fact that they personally did not stand to gain “rationally” from their suicides demonstrates that, just as in the case of collective action and the free rider problem, the “should” does not hold out in empirical reality when it comes to self-destruction. It is worth noting here that in the world of state-state IR however, game theory with rational choice assumptions is indeed very useful, and contains many useful insights about how regimes are likely to act in order to maintain their hold on power. Which is precisely the point: rational choice theory is good at explaining rational things, like a desire for survival by regimes, and politically motivated suicide calls into question its core assumptions.

### **Why does rational choice theory fail?**

The key reason why rational choice theory fails is related to the mistakes committed by its predictive strand: While (steadily improving) formal models at explaining phenomena that may use some elements of rational choice theory represent a genuine advance in political science, rational choice theory’s desire for predictive capabilities based on simplistic foundations is intrinsically suspect. Its economic assumptions applied to politics, with the aim of synthesizing the study of economics and politics, are doomed to failure, as we see from the cases above. (Economic assumptions can work for the marketplace, but even then, only with the help of theoretical stipulations like perfect competition and perfect information.)

In addition, rational choice theory does not account for ideology. Anthony Downs defines ideology merely as a “verbal image of the good society and of the chief means of constructing that society.” For Downs, ideologies are means to power rather than “mere representation of actual goals,” (Downs 1957, 96-97). The question then needs to be asked as to how it is in my individual self-interest to promote a good society. The answer is that it would not be; hence ideology serves no real purpose, according to this account.

However, in fact ideology has a profound influence on political behavior. Two cases in point: 1. Regarding Christian fundamentalists and Israel: Driven by religious ideology, their stake in the conflict relating to their “needing” to have war for the 2<sup>nd</sup> coming of Jesus is anything but a rational or economic determinant of their voting preferences. (I would wager that even if they had access to the “perfect information” that peace in the Middle East suited their economic interests, they would still want war in Israel.) 2. Rational choice theory might be used to account for the economic transactions occurring inside the twin towers. It could not, however, account for the influence of ideology on the suicide terrorists of 9/11.

Finally, Green and Shapiro posit a number of reasons for the failure of rational choice theory. According to their account, the roots of the failure of rational choice theory lie in the desire for universality, not in its assumptions about strategic behavior by individuals. “Post hoc theory development” (Green and Shapiro 1994, 34-35), “curve fitting”: Rational choice theorists look at the empirical evidence and then design a rational choice model to fit it. If contradictory data emerges, the theory is then modified so that the anomaly too can be seen as “rational”. Rational Choice theory predictions rely on unobservable entities such as “equilibrium”, which make tracing actual cause and effect relationships difficult to observe.

Rational choice theorists engage in “arbitrary domain restriction”, suggesting that rational choice theory is applicable “wherever the theory seems to work,” (Green and Shapiro 1994, 45). They also argue that rational choice predictions only vaguely specify the magnitude of the predicted outcomes and that rational choice theorists search more frequently for confirming rather than falsifying evidence. (This however we may count as one of their lesser failings, since it is generally shared by all of us.)

## **Redefining “Rational-Choice” in Political Science: Towards a Theory of Self-Fulfillment**

Not only is it the case that political scientists dine at separate tables; it appears that they *want* to be at separate tables. I don't believe that it is a straw person argument to say that the *chief* aim of rational choice theorists is theory building at the explicit cost of trying to actually understand empirical political phenomena; in fact, rational choicers are proud of this and disdainful of “unscientific” scholarship.

According to Ordeshook's account, the problems he sees that are caused by a lack of realization of the value of rational choice scholarship, “curiously...grow out of the strengths and successes of political theory,” (Ordeshook 1986, ix). However what is even more curious is the sentence, “This research seeks to satisfy a rigid definition of “theory,” and not some ambiguous criteria of good journalism and insightful comment,” (Ordeshook 1986, ix). Ordeshook's own sentence stated clearly, by itself sums up the vacuity of the project better than ten thousand words of debunking: the chief aim is building theory rather than seeking understanding. This is why it seems that the separate tables are here to stay, since the goals of the rational choicers and the not rational choicers are so separate as to constitute the need for different disciplines altogether.

What is needed, according to my reading, is some more nuance. The pathologies of rational choice lead one to conclude that what rational choicers should be talking about is a theory of self-fulfillment. To start, we should employ Maslow's hierarchy of needs. While humans cannot subsist on bread alone, basic biological needs are necessary, if not sufficient, conditions for survival, and these do not consist of solely economic factors. These should be the foundations for understanding politics. “Rationality” should therefore be redefined as self-fulfillment. In fact the Jeffersonian assessment of human desires for life, liberty, and the pursuit of happiness is more persuasive as a starting point than “rationality”. However, in seeking predictive understanding, the elements to analyze would have to incorporate both a materialist and an ideological thesis about how people behave (i.e. we would have to analyze socio-economic conditioning factors, but also allow for emotion and ideology, including religious ideology.)

Is a predictive political science doomed? If not, how can it be improved? First, we cannot rely on any one essentialist foundation (whether culture, rational choice, DNA) to explain everything. As Shapiro argues, if cultural explanations are made to account for everything and “over determine other explanatory variables” (as was attempted unsuccessfully to explain apartheid in South Africa in terms of inevitability), someone would have to write a book called *Pathologies of Cultural Essentialism* (Shapiro 1998, 40). A more nuanced approach can perhaps be found in Habermas’s *The Theory of Communicative Action*, “which provides a broader conception of rationality that recognizes communicative as well as strategic and instrumental forms of rationality and focuses on social interaction rather than on isolated individuals. Individuals reach common understandings, form communal bonds, and construct collective identities through communicative action,” (Miller 1992, 22).

However, what is important to realize is that the relative importance of communicative versus strategic forms of action coordination varies geographically and historically and cannot be understood apart from systemic processes (Miller 1992, 22). This is why universalist political science theories are flawed; nevertheless, predictive possibilities, albeit speculative, can be intelligibly pursued if enough care is taken to account for variables that have to include the material and ideological factors discussed above, and are based on Maslow’s common sense notions rather than on rationality.

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