Rational Choice and Politics

A Critical Introduction

Stephen Parsons

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FOR MY PARENTS

Introduction

Why do peasants revolt, individuals vote, politicians campaign, or governments exist? These are some of the questions explored in the rational choice literature. Over the last couple of decades, rational choice theory has become increasingly influential as a method for explaining political phenomena. However, for a variety of reasons this growth in the use of rational choice methods of explaining political phenomena is somewhat surprising. For instance, the literature can exhibit a tendency to be highly technical, it seems to reduce the study of political phenomena to becoming no more than a sub-branch of economics, and its success rate in explaining certain political phenomena is, to put it mildly, somewhat disappointing.

Nevertheless the growth in the use of rational choice theories in political investigations shows no sign of abating – quite the opposite. This book is hence intended to give students an insight into the main issues and controversies surrounding the use of rational choice theory in politics. Of course, as there is a vast literature on the subject of rational choice explanations in politics, the examples investigated can only be highly selective. However, hopefully the book will provide an appreciation of the potential strengths and limitations of the theory, and give students a basic understanding of the literature.

Although rational choice theory is closely related in various ways to certain economic theories, the book does not assume that students have any knowledge of either economic theory or decision theory, and students without such knowledge should not suffer any disadvantage when approaching the book. If anything, the opposite could be the case, as the book is somewhat sceptical about a number of claims advanced in conventional economic textbooks. There is a rationale for this scepticism, which the following is intended to illustrate.

One of the issues that surfaces repeatedly in the discussions in the book concerns the attempt to incorporate the subject of information acquisition into rational choice theory. This issue is explored partly because it is far from clear that rational choice theories have successfully dealt with the complexities and problems surrounding the question of information. This might not be surprising, as informational issues are highly contentious in economic theories. For example, questions such as what is information, is it the same for everyone, how does an individual know the value of something they have not yet obtained, etc., do not seem to be as easily resolved as is often assumed.

In order to gain an appreciation of some of the issues involved here, assume that one of your fellow students, prior to an important exam, offered to sell you a copy of the exam paper. Leaving moral scruples aside (as economists tend to), would you be prepared to buy the claimed copy? Well, it may depend upon whether you thought that the copy contained 'information': you will only know if the claimed copy is a genuine copy when you eventually enter the exam and read the actual exam paper, by which time it may well be too late. So would your decision depend to some extent upon your view of your fellow student: would they consider selling you a false copy in the hope that you would believe it genuine, hence making money for little effort, or even making it more than likely that you fail the exam? What if you knew that the student was also offering to sell the claimed copy to your fellow students? If so, and if the copy is a genuine copy, then you would not gain any advantage by purchasing it. However, if all your fellow students purchase it, and you do not, this might well entail that you would be disadvantaged.

As the following chapters will reveal, this form of reasoning, where each attempts to anticipate what the other will do, is quite common in explanations based on rational choice theories. It is also quite commonly assumed that individuals are not motivated by any form of ethical or moral worries: lying may be the norm, if it gains the liar an advantage.[1] Yet informational issues raise severe problems in economic theories generally, especially when coupled with the assumption that individuals may attempt to manipulate others, using information that they possess but that the other individual does not.

Some examples should clarify this point. Until fairly recently, economists could happily relate explanations as to how individuals and firms would behave under various market conditions. They could also explain how, given certain conditions, the decisions of all participants in the market would intermesh. However, these explanations assumed that individuals had perfect, or near perfect, information (knew all relevant information) and that individuals were basically 'honest brokers' – if they made a contract, they would keep to the terms of the contract.

However, these forms of explanation are not possible when it is assumed that individuals do not possess full information and will, if possible, break contracts if it is in their interests to do so. Hence economists are currently facing difficulties in explaining how the actions of all can be co-ordinated via the market. Further, the more informational problems are admitted, the more difficult it becomes to mathematically model the relevant processes, and the more intransigent becomes the problem of predicting what will happen.

Moreover, the 'informational issue' is by no means politically neutral. For example, for the majority of the previous century, many economists were quite happy advancing models explaining how centrally planned economies of the sort prevalent, in various forms, in the old Soviet Union and elsewhere, both could and would work. A number of criticisms of these models, such as those advanced by Hayek, focused precisely on the assumptions about information that the models contained (Hayek, 1949). It remains a moot point to what extent the break up of the Soviet Union can be traced back to informational problems that were assumed not to exist. In general, it could be considered somewhat ironic that investigations into political phenomena are fascinated by economic forms of explanation at the very time that economic forms of explanation are encountering something of a crisis.

Having hopefully explained part of the rationale for the subjects investigated, it may be useful to provide a brief résumé of the following chapters. Chapter 1 sets out the basic model of individual choice that is utilized in rational choice theories. It introduces the basic ideas germane to the model, and seeks to explore how and why it may, or may not, be useful in explaining political phenomena.

Chapter 2 investigates five seminal models which apply rational choice theory to the study of various political processes. The models investigated were among the first to utilize rational choice theory in connection with studies of political phenomena, and have proved highly influential for later investigations. The topics investigated here include voting behaviour and party policy formation, problems of collective action, relationships between bureaucracies and governments, democratic decision-making and constitutional choice.

Chapter 3 explores the nature and problems of rational choice theory in more detail. It also explores two further authors whose ideas have become influential in political studies. The first author is Schelling, who was one of the first authors to attempt to use game theory to provide explanations in certain areas significant in the study of international relations. The second author is Arrow, whose theory questions the possibility of arriving at decisions through democratic processes.

Chapter 4 examines further models which use rational choice theory in politic investigations, the majority of which build upon the ideas investigated in Chapter 2. The chapter thus investigates attempts to utilize rational choice theory in exploring the ideas of classic writers such as Hobbes and Marx, and in exploring politically significant factors such as institutions, revolutions, voting behaviour and procedures, agenda setting, and logrolling, amongst others.

The final two chapters are concerned, in somewhat different ways, with the scientific status of rational choice theory, a status which, for many of its advocates, is one of the main reasons why the theory should form the basis for explanations of political phenomena and processes. Chapter 5 examines the recent controversies surrounding the use of rational choice theory in politics. It investigates some of the criticisms that have been levelled against the theory, and some of the defences advanced by its adherents. Particular attention is given to the question of voting behaviour. Chapter 6 extends this inquiry in two ways. Firstly, it investigates the question as to how successful the theory has been in explaining choice in general, not just with regard to political phenomena. Secondly, it examines to what extent the basic 'building blocks' of the theory are sufficient in offering a coherent general explanation of individual choice. The conclusion to the book attempts to summarize the advantages and disadvantages of utilizing rational choice theory in politics.

Two apologies seem in order. Firstly, apart from the investigation of Schelling, the book does not explicitly investigate the use of rational choice theory in the study of international relations. Although I am aware of a number of relevant studies in this area, I do not feel competent enough to assess their potential usefulness or otherwise in this regard. Further, the studies I am aware of do appear to build upon the basic models outlined in the book. Secondly, the book is concerned with rational choice models and the appropriateness or otherwise of their use in the investigation of political phenomena. It thus seeks to explore the internal coherence of the various models, and critically assess the various claims that have been advanced by advocates – for example, that the models can provide adequate explanations or predictions in politics. I have thus not investigated the various criticisms of the theory that have been advanced from external perspectives.

The book thus does not engage with criticisms that have been advanced from a Habermasean perspective that rational choice theory does not exhaust the concept of rationality, and other areas of rationality, for example communicative rationality, are of equal, or even of primary, importance. Nor does the book engage with the various criticisms that have been advanced concerning the reliance on the idea of rationality, whether the criticisms emanate from post-modernist or feminist perspectives. This neglect should not be understood as a rejection of these forms of criticisms – far from it. Rather, given the scope of the book, it seemed preferable to concentrate on the questions and issues that can be raised about rational choice theories when these theories are taken on their own terms.

Notes

1. Unfortunately, this apparent lack of ethical and moral worries frequently appears to be shared by individuals who study economics. A few years ago I had to stop recommending that third year undergraduate students looked at specific journal articles as, whenever I recommended an article, it was rapidly and forcibly removed from the journal – by the use of a Stanley knife, apparently. I was unable to discover whether the article was removed so that the offending student

thus did not have to pay photocopying fees, or whether it was removed so that other students could not read it. There is some debate as to whether economics students choose the subject because they already behave in the manner that economic models assume, hence find the subject congenial, or whether they come to behave in the manner of the model the more they study it. I believe the latter understanding is currently the prevalent explanation.

CHAPTER 1

An Introduction to Rational Choice Theory

We make choices throughout our lives. Some of these choices are relatively commonplace, such as choosing whether or not to make a drink, whilst others, such as choosing whether to attend university, are essentially 'one off' choices which can have a dramatic affect on our lives. We make choices about whether to vote in elections, whether to have children, whether to keep promises we have made. Initially, it might seem that these different examples of choices do not share much in common: the sudden choice to make a drink does not appear comparable to agonizing for months over the choice as to whether or not to attend university, or which to attend.

However, Rational Choice Theory (RCT) claims to be able to explain not just how some choices are made, but how *all* choices are made. Thus, according to the theory, there is no difference in principle between choosing whether to buy apples rather than bananas, and choosing whether to join a political revolution or stay at home and watch television. Further, it claims to explain how *all* individuals make all of their choices. The theory is thus regarded as being equally applicable to the lord and the peasant, the genius and the not so bright.

One of the basic ideas behind RCT is both simple and rather elegant, characteristics which no doubt help explain the appeal of the theory. If I am choosing whether to make a drink for myself, then I must weigh up the benefits of performing this action (satisfying my thirst) against the costs (time and trouble of performing the action). Similarly, when deciding whether to vote, all individuals calculate the benefits of their voting (potentially influencing the outcome of an election) against the costs (the time and trouble involved in going to the polling station).

Given the reference to 'costs' and 'benefits', it is perhaps not surprising to find that the most avid supporters of RCT tend to be found amongst economists. As a first approximation, RCT can thus be viewed as the application of an economic model of human action to the political sphere. In the words of Monroe's book title, it involves 'the economic approach to politics' (Monroe, 1991). The claim is that, as the individual who makes a choice in the economic sphere is the same individual who makes a choice in the political sphere, why should there be different forms of explanation for each sphere?[1] Why should the way an individual makes choices in political matters, or indeed any choice at all, be any different from the way the same individual makes choices in economic matters? Thus the claim is that, as RCT has been successful in explaining economic phenomena, there appears to be no obvious reason why it should not also be successful in explaining political phenomena. The theory claims to explain all choices, for everyone, and thus advocates of RCT deny that the theory is only applicable to economic choices. Thus the economist Gary Becker argues that:

> I have come to the position that the economic approach is a comprehensive one that is applicable to all human behaviour, be it behaviour involving money prices or imputed shadow prices, repeated or infrequent decisions, emotional or mechanical ends, rich or poor persons, . . . brilliant or stupid persons. (Becker, 1976: 8)

Given this claim to universal applicability, it is perhaps not surprising to find that over the last three or four decades RCT has become increasingly influential as a means of providing explanations in politics. Green and Shapiro (1994: 2) note 'scarcely an area of political science has remained untouched by its influence', whilst Shepsle notes that 'in political science, rational choice has moved from minor tributary to main stream' (Shepsle, 2001: 1). This growth in the use of RCT models in politics is inclusive of the area of international relations. Thus, at the beginning of a critical review of the use of RCT in the area of security studies, Walt notes that the popularity of RCT 'has grown significantly in recent years' (Walt, 2000:1).

The predominance of RCT forms of explanation in the social sciences generally is acknowledged in the question asked in the title of Mark Lichbach's recent book: 'Is Rational Choice Theory all of Social Science?' (Lichbach, 2003). It is worth noting, however, that geographical boundaries may well be relevant here. Hence the majority of the examples discussed in the literature are frequently drawn from investigations into political phenomena in the United States, and Dryzek has noted that RCT 'is the most powerful paradigm in the political science discipline, especially in the United States' (Dryzek, 2000: 31).

Although few people doubt the tremendous influence RCT has exercised over political studies in recent decades, for some there is something rather puzzling about this. Lane captures the view of a number of political scientists when he observes that 'in spite of its failure to predict or explain the phenomena it addresses, most commentators believe it will persist undaunted' (Lane, 1996: 124). The adoption of RCT in political studies is thus seen by many as a mistaken adoption of a theory incapable of either predicting what will happen or explaining what is happening or has happened. Yet despite this, most commentators also agree that the use of RCT in political studies will continue, if not increase. Thus, in political studies, RCT has its proponents and its opponents. However, both agree that it will continue to be an influential form of investigation. It is thus possible to be either sympathetic or hostile to the use of RCT in political studies. However, it appears increasingly unlikely that anyone can simply ignore it.

Yet beyond the basic ideas of weighing costs and benefits of choices, what is RCT? Unfortunately, there is no single or unitary system of ideas forming RCT, and practitioners adopt various different types of analysis. Further, even the term 'rational choice theory' is somewhat contentious, as some authors have indicated a preference for the term 'rational action theories'. However, as the term 'rational choice theory' is well entrenched in the relevant literature, it seems advisable to adopt it here.

THE BASIS OF THE RCT MODEL

Despite the differences amongst RCT approaches, they can all be identified as derived, in different yet important ways, from the philosopher Hume. Basically, individuals are regarded as possessing desires and beliefs, and actions are explained in terms of these desires and beliefs. Desires are neither rational nor irrational: adopting Hume's (in)famous example, there is nothing wrong with my desiring the destruction of the world rather than a cut on my finger. In RCT models desires are termed 'preferences', and hence an individual, say, indicates a preference for apples over bananas (desires apples rather than bananas).

An individual's preferences are commonly regarded as being 'given'. To say that preferences are 'given' can indicate a number of factors. Firstly, it can indicate that they are not subject to any judgement by the investigator. Thus, if an individual does prefer the destruction of the world to the cutting of their finger, this is quite acceptable. If an individual prefers to make as much money as they can, rather than assist the underprivileged, this is of no concern to the investigator. Secondly, to say that preferences are 'given' also tends to indicate that the investigator is uninterested in the source of these preferences, or why an individual has the preferences that they do have. Economists thus tend to treat issues concerning the formation of preferences, or why individuals have the preferences that they do, as one of no particular interest, a question to be investigated in other disciplines. As explored in more detail later, this tendency to neglect questions concerning preference formation can raise a number of issues when the analysis is applied to political phenomena. An economist may merely note that an individual prefers one thing to another: however, in politics, a researcher may be interested in how it comes about that an individual, say, decides that they prefer party x to party y. Thirdly, it can indicate that preferences are viewed as being constant, or unchanging. Although economists tend to be uncomfortable with the term 'needs', it has been suggested that the tendency to treat preferences as constant is analogous to treating them as 'human needs'.

Whereas the investigator is disinterested in judging an individual's preferences, this is not generally the case with an individual's beliefs. Although preferences are neither rational nor irrational, it is assumed that there is a 'need to stipulate that beliefs themselves are rational' (Elster, 2000: 29).[2] The difference between desires or preferences can thus be viewed in terms of the differences in the way that they relate to the world. In the case of desires or preferences, an individual is viewed as trying to accommodate the world to their desires. Thus if I desire to quench my thirst, I will try and bring it about that my thirst is quenched.

In contrast, in the case of beliefs, an individual is viewed as trying to accommodate their beliefs to the world. Thus if I desire to quench my thirst, and believe that consuming a cup of salt will lead to my thirst being quenched, there seems a good chance that my belief, but not my desire, is false. There is nothing wrong with an individual desiring that the moon be made of green cheese. However, there almost certainly is something wrong if an individual believes that the moon is made of green cheese. Note also that desires are not assumed to directly affect beliefs: my desire that the moon is made of green cheese should not lead me to believe that it is so made.[3]

In this basic form, the relationship between desires or preferences, beliefs, and action can be put in the form of a practical syllogism thus:

Premise One: I desire to eat something sweet.
Premise Two: I believe that the eating of this bar of chocolate will be the eating of something sweet.
Conclusion: Therefore, I eat the bar of chocolate.

Action is thus identified as the conclusion of the syllogism, where desires and beliefs form the premises. Hence it is argued that we can explain the individual's choice to eat the bar of chocolate simply in terms of the individual's desires or preferences and beliefs. At this stage, the idea of costs and benefits has not yet been integrated into this basic model, and hence the model is not necessarily restricted to RCT, and may be advocated by individuals not necessarily committed to RCT. For example, the model, typically referred to as the model of instrumentally rational action, may be adopted by writers concerned with exploring the philosophy of action. The model does appear to offer a fairly simple explanation of individual action. Indeed, it will be argued later that this explanation is too simple when we try and explain certain more complex forms of action. However, it serves as a sufficient basis for exploring the basics of RCT.

THE BASIC MODEL

As noted, on a strict Humean view, desires are neither rational nor irrational. However, in incorporating desires as 'preferences', the RCT model does introduce certain qualifications. Firstly, it tends to be assumed that preferences are 'well ordered'. Thus, an individual cannot both prefer apples to bananas and bananas to apples. Secondly, preferences are regarded as being transitive.[4] Thus if an individual prefers apples to bananas, and bananas to pears, it is assumed that the individual will prefer apples to pears. Hence: If $A > B$, and $B > C$, then $A > C$.

Many economists regard this restriction in preferences as entirely legitimate, as it is argued that if preferences were not of this form, individual actions would exhibit irrationality. This claimed irrationality is frequently illustrated in terms of a 'money pump'. If an individual prefers A to B, it is assumed that they would be prepared to pay a sum of money, however small, in order to obtain A rather than B. Similarly, if the individual prefers B to C, they would be willing to forgo a sum of money in order to obtain B rather than C. Hence the individual would be willing to pay to obtain B rather than C, and willing to pay again to obtain A rather than B. However, if the individual also states that they prefer C to A, then they would also be prepared to pay to obtain C rather than A. Consequently the individual would pay for B rather than C, A rather than B, yet C rather than A. The individual would thus continue to be willing to pay money to arrive at the desired state, and the exchange process would thus continue until the individual has spent all their money.

However, two things are worth observing. Firstly, as Sugden (1991) has noted, there is nothing in the basic 'Humean model' that allows these restrictions. As desires are neither rational nor irrational, and beliefs are not allowed to directly affect desires, it is not clear which component of the model is responsible for this ordering. Secondly, it is assumed either that the reference is to preferences at any one point of time, or to unchanging preferences over time. There is no inconsistency involved in an individual preferring A to B and B to C one day, yet the next day states they now prefer C to A because, in the intervening period, their preferences have changed.

The individual thus has well-ordered preferences, and these preferences serve as a guide to action. Essentially, the individual acts in a way that attempts to satisfy preferences, and does so on the basis of the beliefs, especially their beliefs concerning the opportunities for action available to them. In attempting to satisfy their preferences, individuals in the basic model are regarded as 'utility maximizers'. This term is used in a restricted, technical sense in contemporary microeconomics, and another source of contention concerns the degree to which this technical sense can be carried over into political models.

At a first approximation, to say that an individual is a 'utility maximizer' simply means that individuals satisfy their preferences as well as they can, given their beliefs about the actions available to them. They choose the action whose outcome, or consequence, is the most preferred. Hence 'given the set of available actions, the agent chooses rationally if there is no other action available to him the consequences of which he prefers to that of the chosen action' (Hollis and Hahn, 1979: 4). The term 'utility' hence simply denotes an individual's preferences: it summarizes how the individual ranks the items under consideration. Hence if the utility of A is greater than the utility of B, the individual prefers A to B.

It is with this move from preferences and beliefs to actions and their consequences that the idea of the 'costs' and 'benefits' of actions is relevant. The benefits of any action are given by the preference that is thus satisfied as a consequence of completing the action. However, individuals are viewed as making choices under conditions of scarcity. Hence one condition for preference satisfaction concerns the resources, or means, available to the individual. An individual may prefer a Porsche car to a Fiat Uno. However, if the individual does not possess sufficient funds to purchase the Porsche, then this action is not available to them, and preference satisfaction would seem to require that the Fiat Uno is purchased instead. Individuals are thus viewed as making choices under conditions of scarcity, where scarce resources are not restricted to money, but may also include factors such as time and effort.

Consequently in the general RCT model actions are viewed as having certain potential benefits (e.g. the preferences that will be satisfied as a consequence of completing the action) and certain potential costs (the time and money it takes to complete the action). Individuals are thus characterized as calculators, who weigh up the benefits and costs of various courses of action available to them. The individual assesses the various actions open to them, and chooses the one giving the greater benefit. As actions are made under conditions of scarcity, the set of actions available to the individual is constrained by their resources. For example, consumers are 'constrained' by their time and budgets, firms by their capital and labour.

In economic theories, these constraints, like preferences, are also frequently taken as 'given'. Hence consumers are viewed as having a 'given' budget. The actions available to the individual are frequently termed the 'feasibility set' (Elster, 1985a: 9). The feasibility set is viewed as being non-empty, so individuals can always make a choice. Actions thus have outcomes, or consequences, and individuals are viewed as performing that action from all available actions whose outcome is the most preferred.

Although economic theories frequently take constraints as being 'given', when RCT models are applied in the study of political phenomena then the question as to why certain constraints are or would be chosen can also be addressed. Why would individuals choose to be ruled by states that constrain their actions, rather than live in a state of anarchy? Why should individuals choose that decisions are to be made by majority voting rather than other forms of voting? As explored in the following chapters, different voting procedures may well produce different outcomes, even if the preferences of the individuals voting remain unaltered. As the voting procedure chosen hence constrains the outcomes that are possible, then the reasons for the choice of this form of constraint is regarded as a legitimate question for exploring through the use of RCT models.

Given scarcity, then one consequence of choosing to perform one action rather than another is that other actions and their outcomes are thus foregone. For example, if an individual chooses to read a newspaper rather than go for a walk in the park, this may well result in the consequence that the individual is better informed about current events than previously. However, a further consequence of selecting the act of reading is that the individual forgoes the exercise that would have been attained through walking. The consequences of any action may well extend over time. Thus an individual may be able to afford a Porsche rather than a Fiat Uno, but purchasing the Porsche entails that they will be unable to go on holiday next summer.

There are thus 'opportunity costs' to any action, where the cost of undertaking one course of action is the cost of the next best available action forgone. If I am deciding between purchasing a car and extending my kitchen, then the 'cost' of my purchasing the car is the kitchen extension I thus miss out on. Similarly, the 'cost' of my going to vote in an election is given by next best action I no longer have the time to undertake.

However, this way of formulating the costs of an action, although common, reveals another assumption that the model makes. Say I am contemplating the decision between the car and the kitchen extension, and opt for the car. The 'opportunity cost' of this decision is thus the kitchen extension that I forgo. However, as I now do not have the kitchen extension, how can I know what I have forgone? I can imagine what the cost of not having a larger kitchen is, but I can never know what it is, because I will not have it. The tendency is thus to treat the benefits and costs of actions as something that can be clearly known in advance, although this assumption is often dubious (Buchanan, 1969).

As the actual benefits and costs of any action can only be known after the action has been completed, reference is often made to 'expected costs' and 'expected benefits'. Again, the assumption is that these expected costs and benefits can be calculated, although, as noted, it is not clear how an individual could calculate, rather than merely imagine, the expected benefits of something that they will never have. However, according to the model, an individual choosing whether to commit funds to a car or a kitchen extension calculates, prior to choosing, what they expect the costs and benefits of each action to be. However, how does an individual calculate the expected costs and benefits of any action? As beliefs are rational, then the individual necessarily has rational beliefs about these expected costs and benefits.

In the case of the choice between the car and the kitchen, it is assumed that the individual will formulate their choice through obtaining information concerning the opportunities available. Hence the individual will undertake activities such as gaining estimates from different builders, search for different car prices, etc. As beliefs, unlike preferences, are regarded as capable of being rational or not, then, as Elster notes, for a belief to be rational it must be 'grounded in the information that is available to the agent' (Elster, 2000: 29). Initially, this seems quite plausible, and it would seem rather perverse to believe in something when all the information available to the agent indicates that this belief is wrong. If an individual discovers, after obtaining estimates, that the cost of the kitchen will be considerably more than originally thought, it would seem an exercise in wishful thinking to believe that it can, after all, be built for considerably less. However, there are, of course, various areas where the information between beliefs and information is far from clear. For example, is a belief in the curative powers of acupuncture mistaken in the light of current 'information available'?

However, the main problem for the model arises through linking the idea of rational beliefs to the assumption of utility maximization. Say I desire to purchase some apples, and visit the local market to do so. I am aware of various stalls that sell apples, and thus of various opportunities open to me. The model assumes that I make the best of the opportunities open to me. Thus I must know the prices of all the apples at all of the stalls and calculate which purchase would represent making the best of the opportunities available.

However, it could also be that there are various shops nearby selling apples, and thus I need to know the prices of these apples as well. Thus in order to make the best of the opportunities available to me, I must have information concerning all of the possible alternatives. Thus in many economic models, the assumption is made that individuals have perfect, or complete, information about all the relevant alternatives, and can perform the adequate calculations. Economists acknowledge that this assumption is not entirely realistic:

> The idea that the typical individual is capable of making the best of the opportunities available to him is a common one in economics . . . In demand theory . . . the mathematics behind this choice strategy is highly sophisticated and for the vast majority of people completely unintelligible. Yet it is assumed that people act as if they understand it . . . No one believes that the typical consumer or firm really could explain the