Case study 1.6 Are we always rational?

Summary

This case study describes how rationality is the central assumption made in economic models, and presents examples of behaviour that is consistent and inconsistent with the principle of rationality.

Suggested answers

1 Can you think of an experiment you could use to test whether decision-makers ignore or take into account sunk costs?

One experiment might work as follows. Participants in the experiment are assigned a ‘value’ (willingness to pay) of owning an item. In the first stage of the game they are also given a cost of purchasing that item, and asked whether they wish to purchase the item. They are told that they will receive a payment that relates to their net gain (value of item minus cost paid). Values and costs would be assigned so that it would be rational for some, but not all, participants to buy the item. By choosing the distribution of value and costs between participants, a situation could be created whereby those for whom it would be rational to buy the item would not necessarily be those with the highest values. In the second stage the same participants (with the same values still assigned to them) would then be invited to play a double oral auction game. In this stage of the game some participants will now own the item and others will not. For those who own the item the costs they paid in the first stage should be treated as sunk and should not be taken into account in deciding whether to trade or at what price to trade. Behaviour in the second stage of the experimental game would therefore provide a test of whether decision makers ignore sunk costs.

2 Often we have a limited amount of time and limited mental capacity for processing all the information necessary to make an optimal decision. Bounded rationality is the idea that decision makers in such situations will behave rationally given the set of constraints on their decision making. Do you think this is a good way of representing the limits on rational decision making? Can you think of examples where this would be a good model for representing decision-making?

Many consumption decisions we make might be characterised in this way. Think about the example of buying a car. There is a large amount of information we could collect on different types of cars and their characteristics (such as safety or special accessories), and on prices we could pay for those cars at alternative dealers; and we could also spend a large amount of time in thinking about and writing down our evaluation of the benefits and costs of the various types of cars and where to buy them. In practice we are likely to limit the amount of time we spend in collecting information, and in processing that information in order to reach a decision about which car to buy. Where the amount of time we choose to spend on buying a car reflects the trade-off between spending an extra unit of time on that activity and spending that time in making another decision or in some other activity, and where the decision we make about which car to buy is rational given the information that is available to us, then we would say that the approach to decision making is boundedly rational. We are making a decision that it optimal given the information we have available, but we must still recognise that this is ‘bounded’ since we do not have all of the relevant information and we have taken short-cuts in thinking through the information before making a decision.

3 Suppose that a study of restaurants showed that the mark-up (price minus cost) on the second-cheapest type of bottle or glass of red or white wine listed on the menu was higher than for any other wines. What type of decision making by patrons of restaurants would make this pricing practice optimal for the restaurants? What does it imply about the rationality of decision making by the patrons of restaurants?

Patrons at a restaurant may have as one objective to project an image of having refined (or not cheap) tastes. Hence, even where – based solely on enjoyment from drinking the wine – they would derive a higher net gain from buying the cheapest wine, they might find it optimal to buy a more expensive wine in order to achieve the objective of appearing to have refined tastes. Note that this would not be irrational behaviour. In terms of balancing the objectives of net gain based on enjoyment of drinking and appearing to have refined tastes, it is optimal to buy a more expensive wine. Where restaurants understand that patrons have a bias against choosing the cheapest wine, they can exploit this behavioural pattern to increase their profits by putting a relatively higher mark-up on wines that are somewhat more expensive than the cheapest wine.