

## Fact and Value in Personal Choice

### I THE PAIN OF PERSONAL CHOICE

While value judgements determine our objectives, the means at our disposal to pursue different objectives are usually limited. This is why economics has been described as ‘the logic of choice’. Values conflict at both the personal and the public level. At the personal level people are constantly making choices in their daily lives. Life is one long trade-off. Even simple things like choosing which vegetables go best with whatever else we are eating involves an unconscious trade-off of values. There are lots of things we would like to do but there are constraints on how many can be done. Finance will be one constraint. Even Bill Gates would probably like to donate more money to charitable activities but is constrained by the finance at his disposal, as well as his time.

Indeed, time is a constraint to which almost everybody is subject. One is constantly having to decide whether to read a book, go to the cinema, get on with one’s work, listen to music, chat to one’s friends and so on. Faced with such choices one will often make some sort of comparison between the advantages and disadvantages of the various options, but the comparison is likely to be very rough and ready and often subconscious, instinctive and impulsive. And some of the choices may have important longer-term consequences, and in a world of uncertainty they will represent judgements about probabilities.

For example, consider the case of a student who is trying to decide which job to take up after graduating. He will probably take several factors

into account. These would include, for example, the salary offered in different lines of employment, promotion prospects, the location of the work, its intrinsic interest, the prestige of the career it might lead to or how far it will provide opportunities to meet interesting or attractive people. These considerations will be partly ‘factual’. But they will also be partly matters of taste or values – for example, what the student regards as ‘interesting’ work or people, and how much importance he attaches to the various considerations.<sup>1</sup>

And suppose his parents say he *ought* to become a dentist because the pay is high and there are good career prospects. But he may reply that material prosperity is not all that important in his scale of values, and the work looks unpleasant. He is inclined to pursue an academic career instead. The pay is low but the work is very interesting, and many people engage in it for love of the work, their contribution to the dissemination of knowledge, and the stimulus they get from their students and colleagues. In this example, then, the student and his parents are reaching different normative propositions as to what he *ought* to do. They may differ both as to the facts and the values. Some of the considerations taken into account by the student and his parents are fairly factual.

For example they may all agree on the pay prospects, but may disagree about the interest of the work. Propositions about whether the salary is high or not are *positive propositions*, the truth of which can be established by reference to some facts, at least in principle. But differences in the relative weight that they attach to, say, prosperity as compared to the intrinsic interest of the work or the appeal of the pursuit of knowledge are differences in values about which no empirical information can provide an answer.

## 2 THE BASIC THEORY OF CONSUMERS’ CHOICE

Economic theory has helped us understand the psychological processes that help us make our choices. One of the greatest advances in economic theory was the concept of ‘diminishing marginal utility’, one which probably anybody with the slightest familiarity with economic theory has heard of. Indeed, the concept of ‘utility’ plays a central role in economics. It also plays a central role in the welfare economics concept of the ‘Pareto optimum’. Hence [Chapter 9](#) is devoted to a discussion of the closely related ethical theory of ‘Utilitarianism’. The concept of ‘utility’ has often been rather loosely identified with ‘welfare’ or ‘happiness’ (as in

classical Utilitarianism). In this chapter I shall concentrate on the concept of ‘utility’, and in the next chapter I shall discuss the concept of ‘Pareto optimum’.

Words like ‘utility’ or ‘welfare’ or ‘better-offness’ usually denote states of mind, though they sometimes have other interpretations. But for most purposes we cannot actually observe states of mind. We can only observe what choices people make, which we generally assume to ‘reveal’ their preferences. But do their choices accurately reflect their ‘true’ preferences? And do their preferences accurately reflect their welfare? In the jargon, ‘Are their preference orderings identical to their welfare orderings?’ We all know people (including ourselves) whose choices we believe to have been unwise, such as taking this job rather than some other, or dating this young lady or that young man rather than another, or taking a holiday in this place rather than that place, and so on. So we have to admit that to go from observed choices to ‘better offness’ is a big jump, involving both positive assumptions about people’s psychologies as well as value judgements about what constitutes being ‘better off’.

### 3 THE ‘UTILITY FUNCTION’ IN ECONOMICS

In [Chapter 3](#) we saw that models of the way economies operate – that is, positive economics – are built up on foundations that comprise (i) ‘behavioural’ assumptions – that is, assumptions about the way that economic agents react to their economic environments in pursuit of their presumed objectives, and (ii) technological assumptions about productive activities (defining ‘productive’ very widely). The models also take as given some initial endowments of capital (including natural and ‘human’ capital) and labour.

A crucial element in the behavioural assumptions is the concept of the utility-maximising consumer and the accompanying concept of the ‘utility function’. In modern economics this merely represents a ranking of preferences that an individual may attach to different collections of goods and services. No precise psychological explanation of preferences is proposed and it is just assumed that if somebody chooses X rather than Y this merely ‘reveals’ his preference for X over Y without implying any particular psychological state of mind that explained the preference – that is, *why* he preferred X to Y. For purposes of positive economics such psychological explanations of consumers’ choices are unnecessary.

Consider an agent (e.g. a consumer) who is faced with a number of options that depend on his ‘environment’ (i.e. his circumstances). Suppose that if he compares two of these options, say X and Y, he can either prefer X to Y or Y to X or be indifferent between them. Repeat this for all possible pairs of options. Assume now that his preferences are *transitive* – that is, that if he prefers X to Y and Y to Z he will prefer X to Z. In that case, he can rank all the options in the order  $X > Y > Z$ , that corresponds to his preferences, or – to use the more formal term – he can attach an ‘ordering’ to the different options available to him. If another option, A, is introduced, and he can rank, say  $X > A$ , and  $A > Y$ , we can introduce this into the preference orderings, so that we have  $X > A > Y > Z$ . Such an ordering is then called his ‘utility function’.

It tells us nothing about *why* he prefers X to Y and so on. His utility function is defined as a representation of this ordering, and nothing more. In economics, utility just means the value of the function that represents a person’s preferences.<sup>2</sup> In other words, the utility function ‘is a function that assigns a number called a “utility” to each of the options in such a way that one option gets a higher number than another if and only if it is preferred. It represents the order of preferences by means of utilities’.<sup>3</sup>

The contemporary interpretation of utility is clearly set out by Binmore as follows:

The modern theory . . . *disowns* its Benthamite origins and cannot be properly understood if these trappings of its childhood are not entirely discarded. . . . A rational individual is only said to behave as though he were satisfying preferences or maximising a utility function and nothing is claimed at all about the internal mental processes that may have led him to do so. A utility function, in the modern sense, is nothing more than a mathematically tractable means of expressing the fact that an individual’s choice behaviour is consistent.<sup>4</sup>

#### 4 PREFERENCES AND THEORIES OF ‘THE GOOD’

It might seem that ostentatious rejection of the classical utilitarian interpretation of ‘utility’ as virtually synonymous with words such as ‘happiness’ or ‘welfare’ is a case of ‘The lady doth protest too much’ [Hamlet]. For in spite of the gradual replacement of the old utilitarian identification of utility with welfare by the modern concept of a utility function it is

generally assumed in welfare economics that people's preferences do, in fact, correspond to their own welfares. As Broome puts it, 'Welfare economists move, almost without noticing it, between saying a person prefers one thing to another and saying she is better off with the first than with the second'.<sup>5</sup>

The reason for this is that preferences play a dual role in welfare economics. In one role they are assumed to determine people's choices. It is assumed that if people prefer A to B it must be because they expect A to add more to their welfare. Given these assumptions, preferences then play a second role, namely to provide the basis for passing judgements about the welfare of society as a whole. As Sen puts it, 'This dual link between choice and preference on the one hand and preference and welfare on the other is crucial to the normative aspects of general equilibrium theory. All the important results in this field depend on this relationship between behaviour and welfare through the intermediary of preferences'.<sup>6</sup>

This feature of welfare economics embodies a particular theory of the 'good' (for an individual, not society), namely the '*preference-satisfaction theory of good*'. There are, however, other theories of the 'good' or of what constitutes 'welfare' or 'well-being'. The theory generally adopted by economists for practical purposes is the '*mental state*' theory, such as the utilitarian theory according to which well-being is a function of people's mental state, such as how happy they *feel*. The father of welfare economics, Pigou, clearly adopted a mental state account when he wrote that 'the elements of welfare are states of consciousness and, perhaps, of their relations'.<sup>7</sup> Another theory of the good is the '*objective list*' theory, according to which welfare has to be measured in terms of various specific items on a list, such as average expectation of life, levels of literacy, access to clean drinking water, and so on.<sup>8</sup> This is, in effect, embodied in various measures of national welfare, such as the United Nations *Human Development Index*.

According to Broome '...the preference-satisfaction theory is obviously false and no one really believes it!'<sup>9</sup> Even economists, who rely heavily on it, do not really believe it. It is another instance – like attitudes to interpersonal comparisons of utility – of the professional schizophrenia to which economists are prone. Indeed, in welfare economics the identification of welfare with the satisfaction of preferences is so automatic and ubiquitous that economists tend to forget how controversial it is. And controversial it certainly is.

## 5 THE ECONOMIC CONCEPT OF RATIONAL CHOICE

But can we go further and see whether people express their preferences in a manner that would enable us to predict how their choice would respond to changes in their circumstance – such as in incomes or prices. To do this we would need to identify some *rational* system behind their choices. And the system we adopt is as follows.

We assume that consumers have some goals and that they attempt to pursue these goals in a ‘rational’ manner. In economics rational behaviour is *instrumentally* rational. ‘The concept of rational behaviour arises from the empirical fact that human behaviour is to a large extent goal-directed behaviour. Basically, rational behaviour is simply behaviour consistently pursuing some well-defined goals, and pursuing them according to some well-defined set of preferences or priorities’.<sup>10</sup> What these goals and preference orderings happen to be will vary from one individual to another and economists need not make any specific assumptions about whether, for example, the goal is maximisation of happiness or some other objective.

The fundamental axioms of rational choice are:

(a) *Consistency*. This means that you cannot prefer A to B at one moment and then prefer B to A later, unless there is a relevant change in the environment within which you are choosing. In other words a person’s preference relations between collections of goods and services X, Y, Z and so on, are not haphazard and random. The assumption of stable utility functions does not, of course, exclude changes in preferences as a result of changes in a person’s circumstances. For example, a person may have fallen ill, which will change the position of health expenditures in his ranking. Or his partner may have run off with the local baker. In this case there will be two types of effect. First, he may become miserable even without any change in his preference pattern at all. It just changes the amount of ‘happiness’ corresponding to any of his ‘indifference’ curves. But, second, he is likely to change his expenditure rankings in many ways. He might even stop eating madeleines.

Furthermore, consistency is not a *sufficient* condition for rationality. A madman who believes he is Louis XVI is making assumptions about his environment that patently conflict with some of its indisputable features. So even if he pursued his objectives in a consistent manner one might still regard his behaviour as ‘irrational’. On the other hand, one might say that, like people who bought certain bank shares before they went bankrupt, he is simply the victim of mistaken information. Consistency, like

comparability, is, however, a *necessary* condition for rationality. Without this consistency assumption, ‘well-ordered utility functions’ would not be very ‘well-ordered’, so the whole structure of micro-economic theory would collapse.

(b) *Transitivity*. This means that if a consumer prefers A to B and B to C, he must prefer A to C. Again, without this assumption it would be difficult, if not, impossible to postulate well-behaved utility functions.

It is true that, as discussed in detail in the next chapter, the assumption that people’s choices strictly follow the criteria of rational choice is unwarranted. But there is also enough evidence to show that it is a sufficiently good assumption to permit the construction of reasonable working models of how the market behaves that could be compared with value judgements about how markets *ought* to behave. But the implications of the fact that people’s choices are not always entirely rational *on the above narrow conception of rationality* raise important conflicts of value judgements that are discussed in the next chapter.

## NOTES

1. As Arrow points out, the distinction between ‘tastes’ and ‘values’ is a very flimsy one. [‘Social Choice and Individual Values’, 2nd edition, 1963:18].
2. Broome refers to this as being now the ‘official definition’ of utility in economics (Broome, 1999:21).
3. Broome, *ibid.*:186.
4. Binmore, 1974:50–51.
5. Binmore, *ibid.*:4.
6. Sen 1982:66–67.
7. Pigou, 1932 edn:10.
8. See Hausman and McPherson, *op.cit.* (2nd edn, 2006) ch. 8, for a comprehensive survey of the main theories.
9. Broome, 1999:4.
10. Harsanyi, 1977:42.