1 Introduction: Lifestyles and Economics

1.1 ECONOMICS AND THE WORLD OF THE MODERN CONSUMER

Being a consumer is not an easy role to play successfully, even in an affluent society. Consumers have to act in a complex, unsettled world where surprises are commonplace and not mere deviations around a trend, a world full of novelty and obsolescence, a world that is, in short, turbulent. If opportunities are not to be thrown needlessly away, the consumer must be a skilled speculator and strategist. Instability in exchange rates and inflation rates, and the uneveness with which inflationary forces feed through the system, makes it difficult to assess trends in respect of relative prices, including real wages. Technological change results in flux in the qualities and varieties of goods on offer, while the increasing complexity of modern products opens up scope for expensive errors when consumer durables are being purchased; the modern consumer cannot hope to be an expert buyer in all markets. These difficulties are compounded by question-marks caused by government policy proposals, for example concerning moves from direct to indirect taxation or regulations concerning the introduction of lead-free petrol. Increasingly, consumers may find that structural changes in the world economy are undermining expectations about employment and promotion prospects that they have long taken for granted; yet new opportunities may not instantly stand out. Added to these worries are new puzzles arising from social changes such as the rise of the Women’s Movement—for example, how a couple might carve out two careers as a joint future without these jeopardising each other.

Given this, one might expect that economists would devote a good deal of attention to the ways in which consumers set about...
making up their minds in situations of uncertainty and complexity. Unfortunately, this has not been the case. The typical economist proceeds to analyse consumer behaviour in a way which makes the problem of choice trivial. The individual consumer is portrayed as if she already has a completely specified set of preferences and seeks to maximise her utility subject to three constraints: her accumulated human and non-human capital, the state of technology, and the prevailing set of relative prices. The consumer’s prior investments in her own skills, coupled with her initial endowment of human capital, determine her employment opportunities. The latter, in turn, constrain her in respect of the commodities she will be able and inclined to purchase, given the prevailing set of prices. Having assumed that the consumer is able to rank hypothetical bundles of consumption goods and employment obligations in order of preference, it is not surprising that the typical economist comes to think of the consumer simply as if she selects the highest-ranking bundle from her feasible set. What we have is an example of what Herbert Simon (1976, p. 130) calls ‘substantive rationality’: the achievement of given goals within the limits imposed by given conditions. How the consumer works out what these ‘given conditions’ might be is not discussed. The economist theorises as if the consumer has defined her problem in advance in a way that makes its solution transparent, and then allows her on to the stage seemingly to solve it.

To deal with uncertainty and the fact that consumers do not finalise their purchases all at once, the analysis might be reformulated in probabilistic terms. That is to say, a conventional economist might ask us to think of the consumer as if she has assigned probabilities to future sets of relative prices, technological changes (these two sets of probabilities would very likely be interrelated) and environmental situations at points in the future. These probabilities could be imagined to be used as decision weights, complicating the analysis somewhat for the analyst, yet not for the hypothetical consumer who could be imagined as if she were perfectly able to deal with all the extra information. Whether or not this probabilistic approach actually deals with genuine uncertainty is open to question, since it does not admit the possibility of consumers being concerned that they may be surprised by events not on their lists of ‘probables’. Anyway, most of the time, and particularly in the teaching of undergraduates, the conventional analysis leaves out any mention of uncertainty (for evidence, see the indexes of texts on consumer choice or microeconomic theory generally). Choices are made to seem clinical, via references to ‘commodity X versus commodity Y’; or homely, via references to ‘pints of beer versus loaves of bread’. They are not represented explicitly as hazardous, expensive in reverse and caught up in the march of structural and technological change.

Perhaps the orthodox economists, who seem untroubled by analyses which leave out discussions of how difficult it is to be a consumer, are themselves the kinds of consumers who are so successful that they are never disappointed and do not realise how gifted they are as strategists and speculators. Perhaps they are not the kind of consumer who gets into the housing market at the top of the boom, who always seems to manage to buy ‘high-tech’ products that are about to be phased out in favour of something better, who on moving overseas fails to act quickly enough to save thousands on a tariff-free luxury car import and who on her arrival ends up buying a ‘lemon’ instead, who turns her career into a ‘dead end’, who, try as she might, never manages to look fashionable, who is always ‘up to her eyes in debt’, and so on. Perhaps such economists are so socially detached that they do not see consumers, like firms, engaging in a competitive struggle to establish themselves in particular ‘league’ positions, and not always coping well enough to avoid relegation to a more lowly status in the world. But another possibility is that the orthodox approach to model building finds it difficult to accommodate interdependent choices as well as choices that are, in a significant proportion of cases, systematically or decisively wrong; the situation could be rather akin to that in the tale of the drunk who has dropped his keys in a dark alley yet is looking for them by a lamp-post, because that is where it is light.

In the midst of conventional analyses of consumer behaviour, one also fails to encounter the term ‘lifestyle’, which most consumers would define as meaning a ‘way of life’. This is in great contrast to what one can see in the marketing literature: in almost every consumer behaviour text designed for marketing students, much space is devoted to describing the different lifestyles in terms of which people may be classified, and how these ways of life are related to consumer attitudes. Sometimes,
making up their minds in situations of uncertainty and complexity. Unfortunately, this has not been the case. The typical economist proceeds to analyse consumer behaviour in a way which makes the problem of choice trivial. The individual consumer is portrayed as if she already has a completely specified set of preferences and seeks to maximise her utility subject to three constraints: her accumulated human and non-human capital, the state of technology, and the prevailing set of relative prices. The consumer's prior investments in her own skills, coupled with her initial endowment of human capital, determine her employment opportunities. The latter, in turn, constrain her in respect of the commodities she will be able and inclined to purchase, given the prevailing set of prices. Having assumed that the consumer is able to rank hypothetical bundles of consumption goods and employment obligations in order of preference, it is not surprising that the typical economist comes to think of the consumer simply as if she selects the highest-ranking bundle from her feasible set. What we have is an example of what Herbert Simon (1976, p. 130) calls 'substantive rationality': the achievement of given goals within the limits imposed by given conditions. How the consumer works out what these 'given conditions' might be is not discussed. The economist theorises as if the consumer has defined her problem in advance in a way that makes its solution transparent, and then allows her on to the stage seemingly to solve it.

To deal with uncertainty and the fact that consumers do not finalise their purchases all at once, the analysis might be reformulated in probabilistic terms. That is to say, a conventional economist might ask us to think of the consumer as if she has assigned probabilities to future sets of relative prices, technological changes (these two sets of probabilities would very likely be interrelated) and environmental situations at points in the future. These probabilities could be imagined to be used as decision weights, complicating the analysis somewhat for the analyst, yet not for the hypothetical consumer who could be imagined as if she were perfectly able to deal with all the extra information. Whether or not this probabilistic approach actually deals with genuine uncertainty is open to question, since it does not admit the possibility of consumers being concerned that they may be surprised by events not on their lists of 'probables'. Anyway, most of the time, and particularly in the teaching of undergraduates, the conventional analysis leaves out any mention of uncertainty (for evidence, see the indexes of texts on consumer choice or microeconomic theory generally). Choices are made to seem clinical, via references to 'commodity X versus commodity Y'; or homely, via references to 'pints of beer versus loaves of bread'. They are not represented explicitly as hazardous, expensive to reverse and caught up in the march of structural and technological change.

Perhaps the orthodox economists, who seem untroubled by analyses which leave out discussions of how difficult it is to be a consumer, are themselves the kinds of consumers who are so successful that they are never disappointed and do not realise how gifted they are as strategists and speculators. Perhaps they are not the kind of consumer who gets into the housing market at the top of the boom, who always seems to manage to buy 'hi-tech' products that are about to be phased out in favour of something better, who on moving overseas fails to act quickly enough to save thousands on a tariff-free luxury car import and who, on her arrival ends up buying a 'lemon' instead, who turns her career into a 'dead end', who, try as she might, never manages to look fashionable, who is always 'up to her eyes in debt', and so on. Perhaps such economists are so socially detached that they do not see consumers, like firms, engaging in a competitive struggle to establish themselves in particular 'league' positions, and not always coping well enough to avoid relegation to a more lowly status in the world. But another possibility is that the orthodox approach to model building finds it difficult to accommodate interdependent choices as well as choices that are, in a significant proportion of cases, systematically or decisively wrong; the situation could be rather akin to that in the tale of the drunk who has dropped his keys in a dark alley yet is looking for them by a lamp-post, because that is where it is light.

In the midst of conventional analyses of consumer behaviour, one also fails to encounter the term 'lifestyle', which most consumers would define as meaning a 'way of life'. This is in great contrast to what one can see in the marketing literature: in almost every consumer behaviour text designed for marketing students, much space is devoted to describing the different lifestyles in terms of which people may be classified, and how these ways of life are related to consumer attitudes. Sometimes,
marketpeers have devoted entire books to this task—an excellent, highly readable recent example is The Nine American Lifestyles (Mitchell, 1985). If economists are aware of this literature, they may not feel it worth mentioning as something which might augment or qualify their work. Of course, it is not the ‘done thing’ for economists to associate themselves publicly with the marketing profession. But they may well reason that lifestyles are no more than patterns that result from successive, if not actually once-and-for-all, optimising exercises in which consumers pit their preferences against their constraints.

In a simple, well-patterned and surprise-free world, such a view of the lifestyles uncovered by market research might be entirely adequate for policy-making purposes. Parts of the turbulent world of today might even approximate reasonably well to the world of orthodox economics. But what of the rest: the situations that are complex, mysterious, hazardous and yet potentially rewarding? Here, I believe we have a case for trying to look at the underpinnings of observed consumer choices in a rather different manner, to see if any novel policy conclusions emerge as candidates for serious study. In this book, I am going to look at consumer lifestyles from the standpoint of a non-mainstream approach to economics, known as behavioural theory. My policy orientation will encompass marketing issues in addition to traditional concerns of the economist. Running through the analysis will be a tension between lifestyle and turbulence; I shall be depicting patterns of consumer behaviour as if they result from the use of relatively inflexible methods of trying to cope with a mobile environment to which perfect adaptation is rendered impossible by complexity and uncertainty (see Heiner, 1983). In other words, I am going to treat ‘ways of life’ as if they are viscous collections of procedures for dealing with fluid situations in which ambiguity is the order of the day. I shall not normally speak of consumers as having sets of preferences. Nor shall I presume that consumers necessarily develop viable—let alone foolproof—procedures for controlling their environments or surviving in them despite inherent scope for error and unpleasant surprises. To do so would seem unwise when it is commonplace to see households disintegrating; lives overshadowed by feelings of regret concerning missed opportunities; people seeking different worlds via drink, drugs and other escapist activities; extensive use of tranquillisers, social workers and psychiatrists; and finance companies inviting tenders for repossessed consumer durables. But it would be heartening to think that some consumers might find that what I have to say helps them improve their own processes of decision making.

1.2 THE METHODOLOGY OF BEHAVIOURAL ECONOMICS

Before I outline the structure of this book and proceed to the main body of the text, it may be useful if I present a detailed explanation of how a behavioural economist such as myself tends to operate. This may help readers understand the ordering of the material in subsequent chapters. More importantly, though, it may help give them a feel of the lifestyle idea that I will be developing. The latter possibility arises because an economist’s (or any other scientist’s) methodology really defines his or her ‘way of life’ whilst working. In other words, each economist has a set of ‘ways’ for dealing with, and defining, the subject matter of economics, just as an individual may have a methodology for dealing with everyday life. Different economists operate in different ‘ways’ and if we know what these are, we may be able to anticipate with a good degree of accuracy the kinds of contributions they may choose to make. Just as one might seek to classify consumers into groups with nearly enough identical ways of trying to cope with the world in general, so one may usefully classify economists, even if their individuality means we shall sometimes be surprised by their behaviour. Whereas we may have nine American lifestyles, there seem to be seven schools of economics: neoclassical, Marxian, neo-Ricardian, neo-Austrian, institutionalist, Post Keynesian and behaviouralist. My own brand of behavioural economics overlaps in some degree with all the other schools; for example, a Marxian might see similarities between my discussions of consumer anxiety (see Chapter 4) and Marx’s concept of alienation, but it would be most unwise generally to classify my work as Marxian! There would be far less danger of confusion were I classified as an institutionalist or Post Keynesian (the latter particularly), rather than as a behavioural theorist. What follows should be recognised as very much a personal view of a behavioural approach to economics; it is not
marketeers have devoted entire books to this task—an excellent, highly readable recent example is The Nine American Lifestyles (Mitchell, 1985). If economists are aware of this literature, they may not feel it worth mentioning as something which might augment or qualify their work. Of course, it is not the ‘done thing’ for economists to associate themselves publicly with the marketing profession. But they may well reason that lifestyles are no more than patterns that result from successive, if not actually once-and-for-all, optimising exercises in which consumers pit their preferences against their constraints.

In a simple, well-patterned and surprise-free world, such a view of the lifestyles uncovered by market research might be entirely adequate for policy-making purposes. Parts of the turbulent world of today might even approximate reasonably well to the world of orthodox economics. But what of the rest: the situations that are complex, mysterious, hazardous and yet potentially rewarding? Here, I believe we have a case for trying to look at the underpinnings of observed consumer choices in a rather different manner, to see if any novel policy conclusions emerge as candidates for serious study. In this book, I am going to look at consumer lifestyles from the standpoint of a non-mainstream approach to economics, known as behavioural theory. My policy orientation will encompass marketing issues in addition to traditional concerns of the economist. Running through the analysis will be a tension between lifestyle and turbulence; I shall be depicting patterns of consumer behaviour as if they result from the use of relatively inflexible methods of trying to cope with a mobile environment to which perfect adaptation is rendered impossible by complexity and uncertainty (see Heiner, 1983). In other words, I am going to treat ‘ways of life’ as if they are viscous collections of procedures for dealing with fluid situations in which ambiguity is the order of the day. I shall not normally speak of consumers as having sets of preferences. Nor shall I presume that consumers necessarily develop viable—let alone foolproof—procedures for controlling their environments or surviving in them despite inherent scope for error and unpleasant surprises. To do so would seem unwise when it is commonplace to see households disintegrating; lives overshadowed by feelings of regret concerning missed opportunities; people seeking different worlds via drink, drugs and other escapist activities.

extensive use of tranquillisers, social workers and psychiatrists; and finance companies inviting tenders for repossessed consumer durables. But it would be heartening to think that some consumers might find that what I have to say helps them improve their own processes of decision making.

1.2 THE METHODOLOGY OF BEHAVIOURAL ECONOMICS

Before I outline the structure of this book and proceed to the main body of the text, it may be useful if I present a detailed explanation of how a behavioural economist such as myself tends to operate. This may help readers understand the ordering of the material in subsequent chapters. More importantly, though, it may help give them a feel of the lifestyle idea that I will be developing. The latter possibility arises because an economist's (or any other scientist's) methodology really defines his or her 'way of life' whilst working. In other words, each economist has a set of 'ways' for dealing with, and defining, the subject matter of economics, just as an individual may have a methodology for dealing with everyday life. Different economists operate in different 'ways' and if we know what these are, we may be able to anticipate with a good degree of accuracy the kinds of contributions they may choose to make. Just as one might seek to classify consumers into groups with nearly enough identical ways of trying to cope with the world in general, so one may usefully classify economists, even if their individuality means we shall sometimes be surprised by their behaviour. Whereas we may have nine American lifestyles, there seem to be seven schools of economics: neoclassical, Marxian, neo-Ricardian, neo-Austrian, institutionalist, Post Keynesian and behaviouralist. My own brand of behavioural economics overlaps in some degree with all the other schools; for example, a Marxian might see similarities between my discussions of consumer anxiety (see Chapter 4) and Marx's concept of alienation, but it would be most unwise generally to classify my work as Marxian! There would be far less danger of confusion were I classified as an institutionalist or Post Keynesian (the latter particularly), rather than as a behavioural theorist. What follows should be recognised as very much a personal view of a behavioural approach to economics; it is not
guaranteed to overlap 100 per cent with other self-confessed behaviouralists' views (see Katona, 1980; Cyert and Simon, 1983).

1.2.1 The Subject Matter of Economics
A behavioural economist does not confine her attention only to resource allocation decisions that involve market transactions. Rather, like the maverick neoclassical economist Gary Becker (1976), she is interested in resource allocation in general, including choices such as those concerning marriage and social interaction. Many will doubtless object that the latter kinds of choice are really the province of the social psychologist. The dividing line is far from clear. As far as society is concerned, decisions about personal relationships are certainly not without economic implications of the conventional kind; in fact, Duck's (1983) recent survey of the social psychology of close relationships opens with a catalogue of the economic consequences of ill-managed relationships. Decisions about marriage, divorce and acts of infidelity will have major impacts on the consumption lifestyles that the individuals involved will be able to adopt; so market choices may not appropriately be separated in all cases from choices of personal relationships. But we should also note that, within the confines of 'non-market transactions', people are pursuing goals that can be, and often are, pursued by others who use the market to a much greater extent. Market transactions presuppose choices between using the market to produce particular outcomes, and either 'doing it oneself' or 'doing it via social exchange'.

1.2.2 The Purpose of Theoretical Analysis
Like any other economist, a behavioural theorist would claim to be theorising not for theory's sake but in order to assist in the design of policies that seek to avoid wasting opportunities for achieving desired outcomes. However, an economist such as myself holds a controversial view concerning the form such assistance might take. The prevailing wisdom—which may have much to be said in its favour if the world is not full of surprises—seems to be that policy makers should be provided with simple-to-manipulate deterministic models that so far have not been demonstrated to be false. This viewpoint, following Friedman (1953), also considers that there is no need to complicate models by introducing assumptions that seem closer to reality, unless this enhances their predictive capabilities. The behavioural theorist, by contrast, emphasises that the future is not in all respects going to be the same as the past and thus warns that deterministic models may suddenly cease to predict with their usual reliability, much to the embarrassment of their users. Such a theorist therefore does not pretend to be able to say what will happen instead, she sees her role as being to open the mind of the policy maker to pertinent possibilities—varieties of things that seemingly could happen—and to assist in attempts to evaluate how seriously these might be taken. It is absolutely vital that the second aspect of the role is not neglected: for if it is, the economic advisor is liable simply to produce confusion in her paymaster's mind when she presents open-ended models or multiple perspectives on a single problem. Once presented with lists of possibilities that seem difficult to dismiss, the policy maker may then choose in ways that leave her in a position to grasp opportunities or deal with difficulties that would otherwise have come as complete surprises. However, despite the best efforts of behaviouralist economic advisors to decide upon the bounds of possibility, there may still be occasions on which the unexpected does happen and past decisions are regretted.

For the policy maker with limited resources at her disposal, a problem will be posed by advice that suggests a broad range of rival outcomes should be taken seriously. Insuring against highly undesirable outcomes, like ensuring one's capacity to make the best of highly desirable outcomes, is a costly business: there is the possibility of spreading resources needlessly thinly if one hedges one's bets. Hence, despite the advice that she has received, the policy maker may well gamble in the hope that the actual outcome lies within a narrower range.

1.2.3 The Building Blocks of Behavioural Analysis
In searching for possible ways in which decision makers might seriously be imagined to act, the behavioural theorist follows lines of enquiry that conventional theorists, seeing their roles differently, studiously avoid. To begin with, the upside-down model-building philosophy of mainstream economics is inverted. The orthodox approach has been incisively characterised by Cuddington (1975, p. 51) as follows:
guaranteed to overlap 100 per cent with other self-confessed behaviouralists’ views (see Katona, 1980: Cyert and Simon, 1983).

1.2.1 The Subject Matter of Economics
A behavioural economist does not confine her attention only to resource allocation decisions that involve market transactions. Rather, like the maverick neoclassical economist Gary Becker (1976), she is interested in resource allocation in general, including choices such as those concerning marriage and social interaction. Many will doubtless object that the latter kinds of choice are really the province of the social psychologist. The dividing line is far from clear. As far as society is concerned, decisions about personal relationships are certainly not without ‘economic’ implications of the conventional kind; in fact, Duck’s (1983) recent survey of the social psychology of close relationships opens with a catalogue of the economic consequences of ill-managed relationships. Decisions about marriage, divorce and acts of infidelity will have major impacts on the consumption lifestyles that the individuals involved will be able to adopt; so market choices may not appropriately be separated in all cases from choices of personal relationships. But we should also note that, within the confines of ‘non-market transactions’, people are pursuing goals that can be, and often are, pursued by others who use the market to a much greater extent. Market transactions presuppose choices between using the market to produce particular outcomes, and either ‘doing it oneself’ or ‘doing it via social exchange’.

1.2.2 The Purpose of Theoretical Analysis
Like any other economist, a behavioural theorist would claim to be theorising not for theory’s sake but in order to assist in the design of policies that seek to avoid wasting opportunities for achieving desired outcomes. However, an economist such as myself holds a controversial view concerning the form such assistance might take. The prevailing wisdom—which may have much to be said in its favour if the world is not full of surprises—seems to be that policy makers should be provided with simple-to-manipulate deterministic models that so far have not been demonstrated to be false. This viewpoint, following Friedman (1953), also considers that there is no need to complicate models by introducing assumptions that seem closer to reality, unless this enhances their predictive capabilities. The behavioural theorist, by contrast, emphasises that the future is not in all respects going to be the same as the past and thus warns that deterministic models may suddenly cease to predict with their usual reliability, much to the embarrassment of their users. Such a theorist therefore does not pretend to be able to say what will happen. Instead, she sees her role as being to open the mind of the policy maker to pertinent possibilities—varieties of things that seemingly could happen—and to assist in attempts to evaluate how seriously these might be taken. It is absolutely vital that the second aspect of the role is not neglected: for if it is, the economic advisor is liable simply to produce confusion in her paymaster’s mind when she presents open-ended models or multiple perspectives on a single problem. Once presented with lists of possibilities that seem difficult to dismiss, the policy maker may then choose in ways that leave her in a position to grasp opportunities or deal with difficulties that would otherwise have come as complete surprises. However, despite the best efforts of behaviouralist economic advisors to decide upon the bounds of possibility, there may still be occasions on which the unexpected does happen and past decisions are regretted.

For the policy maker with limited resources at her disposal, a problem will be posed by advice that suggests a broad range of rival outcomes should be taken seriously. Insuring against highly undesirable outcomes, like ensuring one’s capacity to make the best of highly desirable outcomes, is a costly business: there is the possibility of spreading resources needlessly thinly if one hedges one’s bets. Hence, despite the advice that she has received, the policy maker may well gamble in the hope that the actual outcome lies within a narrower range.

1.2.3 The Building Blocks of Behavioural Analysis
In searching for possible ways in which decision makers might seriously be imagined to act, the behavioural theorist follows lines of enquiry that conventional theorists, seeing their roles differently, studiously avoid. To begin with, the upside-down model-building philosophy of mainstream economics is inverted. The orthodox approach has been incisively characterised by Cuddington (1975, p. 151) as follows:
Instead of asking how reason can be applied to the knowledge that men can or do have of their economic circumstances, [neo]classical economic theory asks how reason can be applied to circumstances that are perfectly known. The problems of what can be known and how it can come to be known—problems of ignorance, uncertainty, risk, deception, delusion, perception, conjecture, adaptation and learning—are then tackled as a complication or refinement of the theory.

The existing mainstream of economic theory has developed in a manner which has accommodated these knowledge deficiences problems as refinements to the theory of economic action rather than rudiments of it.

Behavioural theory gets straight to the heart of the matter by treating such problems as analytical rudiments.

Inevitably, this involves calling at an early stage upon contributions from other disciplines. For example, suppose I am considering how changes in the state of information may affect consumer behaviour. The conventional economics literature, particularly that associated with the ‘rational expectations hypothesis’, assumes that all relevant information is taken account by decision makers. However, it does not discuss how people decide whether information is relevant when different pieces of information conflict. Since the information may concern possibilities that would represent great departures from the present situation as well as ones that imply ‘no change’, I cannot in practice judge how people might reasonably be expected to react unless I understand how they form their beliefs and why they dismiss some notions as unbelievable. To offer advice, I must either develop my own analysis completely from scratch—a daunting task to say the least, and possibly one involving a great waste of my time—or I must investigate the literature of psychology, possibly also of sociology, including any pertinent studies of what people so far have been able to believe (though I must keep in mind the possible dangers of extrapolating such findings into new contexts).

This willingness to examine the work of other behavioural sciences is one reason why the term ‘behavioural economics’ is not an inappropriate one for characterising the work of theorists such as myself: the analysis that emerges is in large part shaped by findings concerning the inability of people to behave in practice in particular ways, and evidence concerning the ways in which they are often observed to behave instead, given these limitations.

Perhaps most significant are results from experimental psychology concerning the ability of decision makers to handle information. The overwhelming message is that the capacity for human minds to formulate and solve the problems that may surface in everyday life is far short of what would be required for objectively rational choice. In most situations, people have trouble keeping in mind more than about seven things at any time (see Miller, 1956) or dealing with more than about ten pieces of information in a second (see Marschak, 1968, p. 12, and Simon, 1979). In short, the consumer suffers from what Simon (1955) calls ‘bounded rationality’ and is forced to simplify her processes of decision making, the more so the less time she has at her disposal.

1.2.4 The Satisficing Principle
Of all the behaviouralists’ departures from orthodoxy, none seems to exasperate mainstream theorists quite so much as the replacement of maximizing/optimizing ideas with the notion that decision makers merely seek prospects that ‘will do’—that are judged ‘satisfactory’ in terms of targets set by the choosers themselves. The basis for this departure is not well understood.

Behavioural theorists are often accused (I speak from experience!) of failing to see that their analysis is just constrained maximisation of the orthodox kind, with an added constraint—the finite computational capacities of the decision maker. Hence it is suggested that if, for example, decision makers use ‘rules of thumb’ to deal with their own bounded rationality, these rules are chosen as the optimal decision-making procedure, not because they are merely judged capable of generating satisfactory outcomes (see Baumol and Quandt, 1964). Such an attempt to rationalise subversive ideas into conformity with conventional modes of thought is entirely to be expected. But it is ill informed.

The basis for the idea that choice is a satisficing activity—by which people seek to meet self-defined aspirations that may fall far short of what might, in principle, be possible lies in the logical impossibility of a decision maker being able to identify an optimal choice even if she happens to make one. In forming her expectations and deciding what to do, a decision maker first faces the problem that the lists of what she might do, and of what might happen as a result of, or despite her choice, are not given but have to be constructed. In other words, she must first identify
Instead of asking how reason can be applied to the knowledge that men can or do have of their economic circumstances, [neo-classical economic theory] asks how reason can be applied to circumstances that are perfectly known. The problems of what can be known and how it can come to be known—problems of ignorance, uncertainty, risk, deception, delusion, perception, conjecture, adaptation and learning—are then tackled as a complication or refinement of the theory.

The existing mainstream of economic theory has developed in a manner which has accommodated these knowledge-deficiency problems as refinements to the theory of economic action rather than rudiments of it.

Behavioural theory gets straight to the heart of the matter by treating such problems as analytical rudiments.

Inevitably, this involves calling at an early stage a contribution from other disciplines. For example, suppose I am considering how changes in the state of information may affect consumer behaviour. The conventional economics literature, particularly that associated with the ‘rational expectations hypothesis’, assumes that all relevant information is taken account by decision makers. However, it does not discuss how people decide which information is relevant, when different pieces of information conflict. Since the information may concern possibilities that would represent great departures from the present situation as well as ones that imply ‘no change’, I cannot in practice judge how people might reasonably be expected to react unless I understand how they form their beliefs and why they dismiss some notions as unbelievable. To offer advice, I must either develop my own analysis completely from scratch—a daunting task to say the least, and possibly one involving a great waste of my time—or I must investigate the literature of psychology, possibly also of sociology, including any pertinent studies of what people so far have been able to believe (though I must keep in mind the possible dangers of extrapolating such findings into new contexts).

This willingness to examine the work of other behavioural scientists is one reason why the term ‘behavioural economics’ is not an inappropriate one for characterising the work of theorists such as myself: the analysis that emerges is in large part shaped by findings concerning the inability of people to behave in practice in particular ways, and evidence concerning the ways in which they are often observed to behave instead, given these limitations.

Perhaps most significant are results from experimental psychology concerning the ability of decision makers to handle information. The overwhelming message is that the capacity for human minds to formulate and solve the problems that may surface in everyday life is far short of what would be required for objectively rational choice. In most situations, people have trouble keeping in mind more than about seven things at any time (see Miller, 1956) or dealing with more than about ten pieces of information in a second (see Marshak, 1968, p. 12, and Simon, 1979). In short, the consumer suffers from what Simon (1955) calls ‘bounded rationality’ and is forced to simplify her processes of decision making, the more so the less time she has at her disposal.

1.2.4 The Satisficing Principle
Of all the behaviouralists’ departures from orthodoxy, none seems to exasperate mainstream theorists quite so much as the replacement of maximising/optimising ideas with the notion that decision makers merely seek prospects that ‘will do’—that are judged ‘satisfactory’ in terms of targets set by the choosers themselves. The basis for this departure is not well understood. Behavioural theorists are often accused (I speak from experience!) of failing to see that their analysis is just constrained maximisation of the orthodox kind, with an added constraint—the finite computational capacities of the decision maker. Hence it is suggested that if, for example, decision makers use ‘rules of thumb’ to deal with their own bounded rationality, these rules are chosen as the optimal decision-making procedure, not because they are merely judged capable of generating satisfactory outcomes (see Baumol and Quandt, 1964). Such an attempt to rationalise subversive ideas into conformity with conventional modes of thought is entirely to be expected. But it is ill informed.

The basis for the idea that choice is a satisficing activity—by which people seek to meet self-defined aspirations that may fall far short of what might, in principle, be possible lies in the logical impossibility of a decision maker being able to identify an optimal choice even if she happens to make one. In forming her expectations and deciding what to do, a decision maker first faces the problem that the lists of what she might do, and of what might happen as a result of, or despite her choice, are not given but have to be constructed. In other words, she must first identify
her constraints before she can engage in constrained maximisation. In principle, absolutely anything might happen, so these lists cannot be complete; surprise is always a possibility. Gathering ideas together—for example, building up an agenda of possible options and evaluating their properties—is not without its costs: for instance, if one is trying to widen one’s agenda, one may be unable to evaluate the properties of already recognised options so carefully. Hence the chooser must decide how, and how far, to engage in a search for ideas that could improve the quality of her decision. Logically, the marginal return to marginal search cannot be known in advance; search may improve one’s choice, but it need not do so. Search choices thus involve exactly the same problems as the uncertain choices to which they relate. A problem of infinite regress thus stands out as a fatal barrier to attempts to avoid satisficing behaviour. As Elster (1984, p. 135) observes, in an excellent discussion of the attempts of Simon (1955, 1976) and Winter (1964) to justify the satisficing concept, ‘at some point this infinite regress must be cut short by intuition, unsupported by formal reasoning, and why not then make the cut-off point as close to the action itself as possible?’

Having selected particular aspirational cut-off points in order to circumvent the infinite regress problem, a decision maker may, in the event, find herself disappointed with the outcome. If so, it is unclear what she should do; just as it is unclear whether success should be taken to imply that she could regularly be setting higher targets. The basic presumption of behavioural theorists (see Simon, 1959) is that a run of failures will normally provoke search and/or experimentation with new approaches to choice and, if unsatisfactory results persist despite such measures, sights will be lowered. A run of successes may convince the chooser that she could be raising her targets and meeting them with little extra difficulty, or be taking bigger short-cuts in this area of choice, thereby leaving herself with more time for other decisions. By experimentation, decision makers might stumble upon patterns of outcomes that seemed at once sustainable and impossible to improve upon. This last possibility has been taken by some theorists (most notably Day, 1967) to imply scope for satisficing behaviour to generate results akin to those presumed in orthodox maximising models; hence it might seem perfectly satisfactory to theorise as if bounded rationality and infinite regress problems did not pose barriers to constrained maximisation. In some situations, this could be a safe way for the theorist to proceed as well as an analytically convenient one; indeed it is a path that behaviouralists have not been unknown to take themselves on occasion (for example, see Kay, 1979). However, environmental turbulence could pose a major barrier to the attainment of such positions by decision makers and even in a static system they will not necessarily be stumbled upon given a ‘long enough’ period of trial and error. Hence, a behaviouralist would usually suggest that it could be more productive for the economist to seek out and examine techniques for choice which choosers may employ very much on a ‘trial’ basis with a good deal of ‘error’ along the way.

1.2.5 Structure and Causality

Following work by Simon (1962, 1969), behavioural theorists are increasingly adding an explicitly structuralist perspective to their work; the present book, heavily influenced by Neil Kay’s (1982, 1984) path-breaking behavioural/structuralist analysis of industrial organisation, is in keeping with this development. Structuralists focus on the ways in which events in a system are shaped by linkages between system components. They suggest that two kinds of linkage may be worthy of investigation. Only one of these is discussed in neoclassical economics, despite the latter’s professed concern with the interdependence of system elements (or, more bluntly, its obsession with general equilibrium), and this one only surfaces in out-of-equilibrium contexts. Suppose the economic system has been in a state of general equilibrium, with supply and demand balancing in all markets, but that there is a disturbance in respect of one product. This may cause a change in its price, the responses to which rebound upon prices and quantities in other markets, through time. Markets may then be said to have diachronic relationships with each other when the system is out of equilibrium. Another example of such relationships would be the multiplier phenomenon in conventional expositions of macroeconomic theory. However, according to the neoclassical way of thinking, a general equilibrium system may be seen as a simple aggregate once it is in equilibrium. The individual consumers are therefore seen as if they act independently of each other and, similarly, equilibrium conditions prevailing in individual
her constraints before she can engage in constrained maximisation. In principle, absolutely anything might happen, so these lists cannot be complete; surprise is always a possibility. Gathering ideas together—for example, building up an agenda of possible options and evaluating their properties—is not without its costs: for instance, if one is trying to widen one’s agenda, one may be unable to evaluate the properties of already recognised options so carefully. Hence the chooser must decide how, and how far, to engage in a search for ideas that could improve the quality of her decision. Logically, the marginal return to marginal search cannot be known in advance; search may improve one’s choice, but it need not do so. Search choices thus involve exactly the same problems as the uncertain choices to which they relate. A problem of infinite regress thus stands out as a fatal barrier to attempts to avoid satisficing behaviour. As Elster (1984, p. 135) observes, in an excellent discussion of the attempts of Simon (1955, 1976) and Winter (1964) to justify the satisficing concept, ‘at some point this infinite regress must be cut short by intuition, unsupported by formal reasoning, and why not then make the cut-off point as close to the action itself as possible?’

Having selected particular aspirational cut-off points in order to circumvent the infinite regress problem, a decision maker may, in the event, find herself disappointed with the outcome. If so, it is unclear what she should do; just as it is unclear whether success should be taken to imply that she could regularly be setting higher targets. The basic presumption of behavioural theorists (see Simon, 1959) is that a run of failures will normally provoke search and/or experimentation with new approaches to choice and, if unsatisfactory results persist despite such measures, sights will be lowered. A run of successes may convince the chooser that she could be raising her targets and meeting them with little extra difficulty, or be taking bigger short-cuts in this area of choice, thereby leaving herself with more time for other decisions. By experimentation, decision makers might stumble upon patterns of outcomes that seemed at once sustainable and impossible to improve upon. This last possibility has been taken by some theorists (most notably Day, 1967) to imply scope for satisficing behaviour to generate results akin to those presumed in orthodox maximising models; hence it might seem perfectly satisfactory to theorise as if bounded rationality and infinite regress problems did not pose barriers to constrained maximisation. In some situations, this could be a safe way for the theorist to proceed as well as an analytically convenient one; indeed it is a path that behaviouralists have not been unknown to take themselves on occasion (for example, see Kay, 1979). However, environmental turbulence could pose a major barrier to the attainment of such positions by decision makers and even in a static system they will not necessarily be stumbled upon given a ‘long enough’ period of trial and error. Hence, a behaviouralist would usually suggest that it could be more productive for the economist to seek out and examine techniques for choice which choosers may employ very much on a ‘trial’ basis with a good deal of ‘error’ along the way.

1.2.5 Structure and Causality

Following work by Simon (1962, 1969), behavioural theorists are increasingly adding an explicitly structuralist perspective to their work; the present book, heavily influenced by Neil Kay’s (1982, 1984) path-breaking behavioural/structuralist analysis of industrial organisation, is in keeping with this development. Structuralists focus on the ways in which events in a system are shaped by linkages between system components. They suggest that two kinds of linkage may be worthy of investigation. Only one of these is discussed in neoclassical economics, despite the latter’s professed concern with the interdependence of system elements (or, more bluntly, its obsession with general equilibrium), and this one only surfaces in out-of-equilibrium contexts. Suppose the economic system has been in a state of general equilibrium, with supply and demand balancing in all markets, but that there is a disturbance in respect of one product. This may cause a change in its price, the responses to which rebound upon prices and quantities in other markets, through time. Markets may then be said to have diachronic relationships with each other when the system is out of equilibrium. Another example of such relationships would be the multiplier phenomenon in conventional expositions of macroeconomic theory. However, according to the neoclassical way of thinking, a general equilibrium system may be seen as a simple aggregate once it is in equilibrium. The individual consumers are therefore seen as if they act independently of each other and, similarly, equilibrium conditions prevailing in individual
product markets can be analysed one at a time. In equilibrium nothing is adjusting, so time effectively vanishes from the story, taking with it diachronic interdependency.

Behavioural theorists point out that spill-over linkages between elements in a system may not be manifest merely through time, but also at a point in time. Thus decision makers may tend to construct particular bundles of activities as means to certain ends very much with a view to the *synchronic* linkages between them. To look at favoured commodity groupings as if they are simple aggregates of components may be misleading if one wishes to understand why they have been put together. In fact, decision makers may be taking careful account of the *indecomposability* of the groupings they are selecting: they may well realise that if a particular component has to be given up, a disproportionate impact may be produced on the usefulness of the others. Likewise, they may be carefully considering the case with which new, improved components may be slotted into an existing grouping—in other words, the question of compatibility. From this standpoint, choice involves much more than the selection of one bundle of commodities or product attributes at the expense of another: it concerns the selection of one *design of system* at the expense of another. Commitments to one set of synchronic linkages at a particular point in time may rebound upon the evolution of the system through time.

The distinction between a simple aggregate and an incompletely decomposable system may be new to many readers, so the following example is offered by way of clarification. A single-engined aeroplane cruising at a steady altitude might be said to be in some kind of equilibrium. It might also be characterised as a mass of components—engine, wings, cabin, tailplane, tailfin, undercarriage, and so on. Added together, they equal an aeroplane, just as two dollars plus three dollars is five dollars. Now suppose the engine fails: we are out of equilibrium, but to know whether or not we still have a viable aeroplane, we need to know how the other components function in relation to the engine. Wings will not provide so much lift if the forward motion normally produced by the engine is absent, so the ‘aeroplane’ loses height. Can it be controlled as it glides downwards? The answer here may depend on whether or not the hydraulics are driven by the engine. If they are, and if there is no manual back-up, disaster looms ahead. The moral then becomes: if one survives the impending crash, travel next time in a twin-engined aircraft, or at least one with a non-engine-dependent control system. To understand the subsequent choice of aircraft, onlookers need a knowledge of linkages between components: a knowledge of aircraft design.

This example can also be used to show how some components from a system may be easier to sacrifice than others. The failure of an aircraft’s rudder may not prevent it from being steered safely to its destination, since the engines and other movable surfaces can be used as rather less convenient substitutes—so long as the pilot knows how to use them to this end, and so long as the rudder’s failure is not a symptom of a complete breakdown of the plane’s hydraulics. A structuralist perspective on an aircraft leads one to expect system designers to favour dual hydraulic circuits, as well as multiple engines, but not usually to wish to incorporate twin rudders. The view that an aircraft is a simple aggregate is short on content when a need arises to explain why particular designs tend to be favoured.

As far as the present book is concerned, the structuralist perspective means that I will be emphasising complementarities far more than orthodox economists do, and I will be de-emphasising substitution. Readers might find it helpful always to keep in mind the idea that homes and ways of life may be contrived by consumers not as simple aggregates but as systems wherein some potential linkages are experimented with and others are excluded. It might also be noticed that I seek to highlight linkages amongst component sections of this book, via frequent forward- and backward-looking pointers (for example: see section ...): the book may be broken up into chapters and sections to ease comprehension, but quite often the message will be enhanced if it is not read in a simple linear manner.

1.2.6 Strange Loops and Tangled Hierarchies
Anyone who has encountered computer scientist Douglas Hofstadter’s extraordinary (1979) book *Gödel, Escher, Bach: An Eternal Golden Braid* has something of a head-start when it comes to understanding the differences between behavioural and neoclassical approaches to economics. Like Hofstadter, behavioural theorists are prone to be intrigued by the concept of the
product markets can be analysed one at a time. In equilibrium nothing is adjusting, so time effectively vanishes from the story, taking with it diachronic interdependency.

Behavioural theorists point out that spill-over linkages between elements in a system may not be manifest merely through time, but also at a point in time. Thus decision makers may tend to construct particular bundles of activities as means to certain ends very much with a view to the synchronous linkages between them. To look at favoured commodity groupings as if they are simple aggregates of components may be misleading if one wishes to understand why they have been put together. In fact, decision makers may be taking careful account of the in decomposability of the groupings they are selecting: they may well realise that if a particular component has to be given up, a disproportionate impact may be produced on the usefulness of the others. Likewise, they may be carefully considering the case with which new, improved components may be slotted into an existing grouping—in other words, the question of compatibility. From this standpoint, choice involves much more than the selection of one bundle of commodities or product attributes at the expense of another: it concerns the selection of one design of system at the expense of another. Commitments to one set of synchronous linkages at a particular point in time may rebound upon the evolution of the system through time.

The distinction between a simple aggregate and an incompletely decomposable system may be new to many readers, so the following example is offered by way of clarification. A single-engined aeroplane cruising at a steady altitude might be said to be in some kind of equilibrium. It might also be characterised as a mass of components—engine, wings, cabin, tailplane, tailfin, undercarriage, and so on. Added together, they equal an aeroplane, just as two dollars plus three dollars is five dollars. Now suppose the engine fails: we are out of equilibrium, but to know whether or not we still have a viable aeroplane, we need to know how the other components function in relation to the engine. Wings will not provide so much lift if the forward motion normally produced by the engine is absent, so the aeroplane loses height. Can it be controlled as it glides downwards? The answer here may depend on whether or not the hydraulics are driven by the engine. If they are, and if there is no manual back-up, disaster looms ahead. The moral then becomes: if one survives the impending crash, travel next time in a twin-engined aircraft, or at least one with a non-engine-dependent control system. To understand the subsequent choice of aircraft, onlookers need a knowledge of linkages between components: a knowledge of aircraft design.

This example can also be used to show how some components from a system may be easier to sacrifice than others. The failure of an aircraft’s rudder may not prevent it from being steered safely to its destination, since the engines and other movable surfaces can be used as rather less convenient substitutes—so long as the pilot knows how to use them to this end, and so long as the rudder’s failure is not a symptom of a complete breakdown of the plane’s hydraulics. A structuralist perspective on an aircraft leads one to expect system designers to favour dual hydraulic circuits, as well as multiple engines, but not usually to wish to incorporate twin rudders. The view that an aircraft is a simple aggregate is short on content when a need arises to explain why particular designs tend to be favoured.

As far as the present book is concerned, the structuralist perspective means that I will be emphasising complementarities far more than orthodox economists do, and I will be de-emphasising substitution. Readers might find it helpful always to keep in mind the idea that homes and ways of life may be contrived by consumers not as simple aggregates but as systems wherein some potential linkages are experimented with and others are excluded. It might also be noticed that I seek to highlight linkages amongst component sections of this book, via frequent forward- and backward-looking pointers (for example: see section ...); the book may be broken up into chapters and sections to ease comprehension, but quite often the message will be enhanced if it is not read in a simple linear manner.

1.2.6 Strange Loops and Tangled Hierarchies

Anyone who has encountered computer scientist Douglas Hofstadter’s extraordinary (1979) book Godel, Escher, Bach: An Eternal Golden Braid has something of a head-start when it comes to understanding the differences between behavioural and neoclassical approaches to economics. Like Hofstadter, behavioural theorists are prone to be intrigued by the concept of the
multilevel system in which attempts to find an analytical base or independent building blocks run into difficulties unless one imposes some `bottom' from outside or divides up an integral system in an essentially arbitrary manner. Hofstadler's famous trio of figures all explored questions relating to `strange loops' and `tangled hierarchies': Gödel used mathematical reasoning to explore mathematical reasoning itself; Escher produced many fascinating works of art involving multilevel loops (waterfalls successively descending yet seemingly ending up providing the initial source of the flow, thereby defying both gravity and optical perspective; hands drawing hands; and so on); while Bach experimented with musical structures in which resolution could be achieved only by repeating a thematic pattern in a higher key, ever rising in pitch and eventually passing though the original key at a higher octave, still with no end in sight. This book may be seen frequently to run into parallel phenomena in relation to consumer behaviour.

One obvious example is the infinite regress problem that neoclassical critics of satisficing notions tend to ignore: to deal with uncertainty in choice, uncertain choices must be made between schemes to search for more information, and so on. The way out for the chooser involves imposing an arbitrary cut-off: assume particular targets are attainable, search until it seems sufficiently likely that they may be met, and then stop and act. (Note here that satisficing is going on in a dual sense—see section 8.5—and that the initial assumptions concerning what is attainable may themselves be predictions from theories built on yet other assumptions—see section 6.2.) Another example encountered in these opening pages concerns the discussion of the proposed methodology for exploring ways of life, which noted that a methodology is a scientist's way of life in her work environment; this point will be meaningless to readers unless they can break into the circle via some prior view of either a 'way of life' or a 'methodology'. This strange loop is just part of a more general problem: all language is metaphor, and the concept of metaphor can only be defined in relativistic terms.

To see economic events as part of history and the march of history as involving a `strange loop' may help clarify further the perspective from which this book is written. Here, recent work by Bausor (1982, 1984), Hamouda (1983) and Shackle (1984) is especially instructive. Bausor depicts the economic process as a loop in which four elements are chained together. One can break into this chain by noting that recent choices of strategies may affect the allocation of resources and generate outcomes. Outcomes may change the information available in the system, thereby possibly causing some decision makers to change their perceptions, their understandings of the nature of things. Changes in perceptions may cause decision makers in turn to change their expectations—the things they anticipate may happen. As a result of changing their expectations, decision makers may then change their strategies for dealing with life. And so life goes on.

Now, of course, history is actually extending itself forward in time, so we might prefer to follow Hamouda and Shackle and consider Bausor's loop as an endless helix that starts in the past and which will coil forward, in an unforeknowable way, into the future. But whether we see the process as a loop or a helix, the strategies/outcomes/perceptions/expectations chain of interactions certainly highlights the problem of where one should decide to draw the boundaries of economics. Whatever we do, we have to start the analysis somewhere. Neoclassical economics essentially starts by taking expectations as given. It examines the choices implied by the application of a particular kind of reasoning to these expectations, and then stops. If the choices result in compatible trades, and if experience with the traded commodities does not then falsify expectations and does not provoke innovations, then we might well expect the future to be the same as the past: enter equilibrium, exit history. By normally proceeding 'as if' these 'ifs' do indeed eventuate, neoclassical economists neatly extricate themselves from the loop/helix and from the study of expectation formation; expectations are given at the outset and they stay as they were. The behavioural theorist might choose likewise to begin with the convenient assumption of a given set of expectations (compare the ordering of chapters in this book with the one chosen in The Economic Imagination) and then examine the kinds of reasoning that choosers might seriously be imagined to apply to the problem of choice. However, such an economist would then recognise the scope for individuals to make incompatible choices of strategy and to experience surprises. Therefore she is unwilling to proceed as if equilibrium is normally achieved when choices are made. The problem is then to explain how, through historical time, the system lurches forward from one set
multilevel system in which attempts to find an analytical base or independent building blocks run into difficulties unless one imposes some 'bottom' from outside or divides up an integral system in an essentially arbitrary manner. Hofstadter’s famous trio of figures all explored questions relating to ‘strange loops’ and ‘tangled hierarchies’: Gödel used mathematical reasoning to explore mathematical reasoning itself; Escher produced many fascinating works of art involving multilevel loops (waterfalls successively descending yet seemingly ending up providing the initial source of the flow, thereby defying both gravity and optical perspective; hands drawing hands; and so on); while Bach experimented with musical structures in which resolution could be achieved only by repeating a thematic pattern in a higher key, ever rising in pitch and eventually passing though the original key at a higher octave, still with no end in sight. This book may be seen frequently to run into parallel phenomena in relation to consumer behaviour.

One obvious example is the infinite regress problem that neoclassical critics of satisfying notions tend to ignore: to deal with uncertainty in choice, uncertain choices must be made between schemes to search for more information, and so on. The way out for the chooser involves imposing an arbitrary cut-off; assume particular targets are attainable, search until it seems sufficiently likely that they may be met, and then stop and act. (Note here that satisfying is going on in a dual sense—see section 8.5—and that the initial assumptions concerning what is attainable may themselves be predictions from theories built on yet other assumptions—see section 6.2.) Another example encountered in these opening pages concerns the discussion of the proposed methodology for exploring ways of life, which noted that a methodology is a scientist’s way of life in her work environment; this point will be meaningless to readers unless they can break into the circle via some prior view of either a ‘way of life’ or a ‘methodology’. This strange loop is just part of a more general problem: all language is metaphor, and the concept of metaphor can only be defined in relativistic terms.

To see economic events as part of history and the march of history as involving a ‘strange loop’ may help clarify further the perspective from which this book is written. Here, recent work by Bausor (1982, 1984), Hamouda (1983) and Shackle (1984) is especially instructive. Bausor depicts the economic process as a loop in which four elements are chained together. One can break into this chain by noting that recent choices of strategies may affect the allocation of resources and generate outcomes. Outcomes may change the information available in the system, thereby possibly causing some decision makers to change their perceptions, their understandings of the nature of things. Changes in perceptions may cause decision makers in turn to change their expectations—the things they anticipate may happen. As a result of changing their expectations, decision makers may then change their strategies for dealing with life. And so life goes on.

Now, of course, history is actually extending itself forward in time, so we might prefer to follow Hamouda and Shackle and consider Bausor’s loop as an endless helix that starts in the past and which will coil forward, in an unforeseeable way, into the future. But whether we see the process as a loop or a helix, the strategies/outcomes/perceptions/expectations chain of interactions certainly highlights the problem of where one should decide to draw the boundaries of economics. Whatever we do, we have to start the analysis somewhere. Neoclassical economics essentially starts by taking expectations as given. It examines the choices implied by the application of a particular kind of reasoning to these expectations, and then stops. If the choices result in compatible trades, and if experience with the traded commodities does not then falsify expectations and does not provoke innovations, then we might well expect the future to be the same as the past: enter equilibrium, exit history. By normally proceeding ‘as if’ these ‘ifs’ do indeed eventuate, neoclassical economists neatly extricate themselves from the loop/helix and from the study of expectation formation; expectations are given at the outset and they stay as they were. The behavioural theorist might choose likewise to begin with the convenient assumption of a given set of expectations (compare the ordering of chapters in this book with the one chosen in The Economic Imagination) and then examine the kinds of reasoning that choosers might seriously be imagined to apply to the problem of choice. However, such an economist would then recognise the scope for individuals to make incompatible choices of strategy and to experience surprises. Therefore she is unwilling to proceed as if equilibrium is normally achieved when choices are made. The problem is then to explain how, through historical time, the system lurches forward from one set
of outcomes to another. It no longer seems adequate to continue to ignore the question of how expectation-forming processes work, for these play a decisive role in determining the path of movement.

1.2.7 Attitudes Towards the Testing of Theories

As I have already noted, behavioural theorists seek out empirical material on behaviour in economic systems at the start of their investigations, rather than begin with abstractions that offer analytical convenience but bring with them considerable grounds for disbelieving the possibilities generated from them as "as if" representations of reality. Putting things crudely, we could say that behavioural theorists try to "make their assumptions as realistic as possible". However, just because they begin work in this way, one should not jump to the conclusion that they insist on the "Austrian" a prioristic approach, rejecting the idea of a need for empirical investigations of the theories they produce. Members of the Austrian school, such as Mises (1966), have argued that the way to assess the validity of economic theories is to seek out their roots in human action, checking for logical consistency along the way. Indeed, as Hutchinson (1958 Ch. V; 1977 p. 159) has pointed out, the a prioristic tradition held that economists enjoyed a great advantage over natural scientists when they came to assess theories, for they, as economic actors themselves, could uncover their fundamental propositions by introspection. The Behaviouralist, by contrast, recognises that these roots involve "matters of psychology, upon which even psychologists have differences of opinion" (Littledale, 1983, p. 43). As Popp (1976, p. 57) has pointed out, "there is no such thing as an unprejudiced observation"; observations are inevitably theory laden, whether they relate to fundamental propositions that might serve as a basis for model building, or to tests of hypotheses from models thus developed.

Whilst welcoming empirical investigations of their theoretical propositions, behavioural theorists find themselves in a tricky position when it comes to deciding what to make of such work. The ultimate aim of engaging in it is to assist the economist in assessing which possibilities she should take seriously in relation to questions of policy advice. However, empirical studies can only relate to particular past contexts, so at best they can only be suggestive concerning what could happen in the future period in respect of which decisions need to be taken. All of the proposals for empirical work outlined later in this book could, if followed up, only produce results suggesting that, in the past and in a particular proportion of cases, subjects were observed to behave in ways consistent with or at odds with particular propositions. In future contexts, different results could be generated. Possibilities that eventuated in no cases in a past sample might in latter periods seem to be happening relatively often, and vice versa for once seemingly common outcomes. The past cannot tell us how seriously to take suggestions about how the future could look.

We seem here to have another "strange loop": the point of conducting empirical investigations is to assist us in assessing how seriously to take possibilities, yet we have no obvious way of deciding how seriously to take empirical findings. If so, why bother to test our propositions? (note the parallel here with the quotation from Fisher in section 1.2.4). As with other such loops, the way out of the tangle is provided by a prior view in terms of which the theorist chooses to try to see things; what we make of empirical work is very much an outcome of our personal judgemental processes. Any advice we give is going to be highly subjective, whatever our degree of diligence in conducting empirical work. It is quite possible that even a Behavioural theorist, for want of any obviously better procedure, is going to end up extrapolating past findings, albeit cautiously, into the future (see sections 5.5. 6.4 and 8.6). Behavioural theorists, like any others, can only judge after the event the adequacy of their own intuitions in respect of empirical work; the proof of the pudding has to be in the eating and sometimes the recipe may produce a severe upset for the person who tries it.

The kinds of empirical material a Behavioural economist is inclined to take seriously are much more diverse than those that appeal to neoclassical economists. Amongst orthodox theorists there is a preference for econometric work employing published statistics; they display a general hostility towards case study work, in which the economist actually asks questions of decision makers. Whenever case study work is produced that seems to run counter to the core ideas of orthodox theory, the defence seems to involve the allegation that the work is biased, due to the nature of the questions asked and the attitudes of the respondents.
of outcomes to another. It no longer seems adequate to continue
to ignore the question of how expectation-forming processes
work, for these play a decisive role in determining the path of
movement.

1.2.7 Attitudes Towards the Testing of Theories
As I have already noted, behavioural theorists seek out empirical
material on behaviour in economic systems at the start of their
investigations, rather than begin with abstractions that offer
analytical convenience but bring with them considerable grounds
for disbelieving the possibilities generated from them as 'as if'
representations of reality. Putting things crudely, we could say
that behavioural theorists try to 'make their assumptions as
realistic as possible'. However, just because they begin work in
this way, one should not jump to the conclusion that they must
on the 'Austrian' a prioristic approach, rejecting the idea of a
need for empirical investigations of the theories they produce.
Members of the Austrian school, such as Mises (1966),
have argued that the way to assess the validity of economic theories is
to seek out their roots in human action, checking for logical
consistency along the way. Indeed, as Hutchison (1958 Ch. V;
1977 p. 159) has pointed out, the a prioristic tradition held that
economists enjoyed a great advantage over natural scientists
when they came to assess theories, for they, as economic actors
themselves, could uncover their fundamental propositions by
introspection. The behaviouralist, by contrast, recognises that
these roots involve 'matters of psychology, upon which even
psychologists have differences of opinion' (Littlechild, 1983, p.
43). As Popper (1976, p. 57) has pointed out, 'there is no such
thing as an unprejudiced observation'; observations are inevitably
theory laden, whether they relate to fundamental propositions
that might serve as a basis for model building, or to tests of
hypotheses from models thus developed.

Whilst welcoming empirical investigations of their theoretical
propositions, behavioural theorists find themselves in a tricky
position when it comes to deciding what to make of such work.
The ultimate aim of engaging in it is to assist the economist in
assessing which possibilities she should take seriously in relation
to questions of policy advice. However, empirical studies can
only relate to particular past contexts, so at best they can only be
suggestive concerning what could happen in the future period in
respect of which decisions need to be taken. All of the proposals
for empirical work outlined later in this book could, if followed
up, only produce results suggesting that, in the past and in a
particular proportion of cases, subjects were observed to behave
in ways consistent with or at odds with particular propositions. In
future contexts, different results could be generated. Possibilities
that eventuated in no cases in a past sample might in latter
periods seem to be happening relatively often, and vice versa for
once seemingly common outcomes. The past cannot tell us how
seriously to take suggestions about how the future could look.

We seem here to have another 'strange loop': the point of
conducting empirical investigations is to assist us in assessing how
seriously to take possibilities, yet we have no obvious way of
deciding how seriously to take empirical findings. If so, why
bother to test our propositions? (note the parallel here with the
quotation from Elster in section 1.2.4). As with other such loops,
the way out of the tangle is provided by a prior view in terms of
which the theorist chooses to try to see things; what we make of
empirical work is very much an outcome of our personal judge-
mental processes. Any advice we give is going to be highly
subjective, whatever our degree of diligence in conducting empirical
work. It is quite possible that even a behaviourist, for want of any
obviously better procedure, is going often to end up
extrapolating past findings, albeit cautiously, into the future (see
sections 5.5, 6.1 6.4 and 8.6). Behavioural theorists, like any
others, can only judge after the event the adequacy of their own
intuitions in respect of empirical work: the proof of the pudding
has to be in the eating and sometimes the recipe may produce a
severe upset for the person who tries it.

The kinds of empirical material a behavioural economist is
inclined to take seriously are much more diverse than those that
appeal to neoclassical economists. Amongst orthodox theorists
there is a preference for econometric work employing published
statistics: they display a general hostility towards case study
work, in which the economist actually asks questions of decision
makers. Whenever case study work is produced that seems to run
counter to the core ideas of orthodox theory, the defence seems
to involve the allegation that the work is biased, due to the
nature of the questions asked and the attitudes of the respondents
to the investigator, and that sample sizes are too small. (Two classic instances of such defences are Machlup, 1946, and Robinson, 1939, p. 539, respectively. Forty years after it first appeared, Machlup’s paper is still used with tedious regularity as a club with which to fight back against intrusive behavioural ideas.) The orthodox view plays down the extent to which published data are themselves products of information-gathering processes involving human decision makers and the asking of questions (Morgenstern, 1963), while drawing little attention to the possibility that published econometric work may be misleading as a result of the non-revelation of ‘poor’ results from slightly different data series or functional forms, or more devious instances of ‘data mining’ (Feige, 1975). Sometimes, the claims of neoclassical theorists to the effect that their ideas have support from hundreds of econometric studies border on the downright fraudulent—see Cvet and Simon (1983) for an expose that deserves to be more widely known.

If all observations, being theory laden, are open to bias then it may not be unwise to seek out diverse sources of them in the hope that possible inconsistencies, anomalies and biases will be revealed. And here, when I say diverse, I really mean diverse, not simply formal case study/market research work to supplement econometric analysis of published data. I am quite prepared to consider the possible implications of my own and other people’s casual observations of behaviour and see if these can be argued to be inconsistent with my own and other people’s ideas. Such observations may not be obtained under ‘controlled conditions’ or from systematic search, but they may at least make one stop and question the basis of some things that some economists believe. What writers say in novels and consumer magazines may likewise provide useful material that can be subject to scrutiny for possible inconsistency with particular theoretical notions about the bases of choice: for example, since uncovering the psychological material employed here in Chapter 4, I have been repeatedly struck by the way in which the nature of human action has been portrayed in a similar way in novels (J.B. Priestley’s works in particular have provided a whole series of examples). Of course, my reading is selective and I am trying to see whether I can make a particular interpretation fit, but I would also be selective if I gathered data for econometric estimations and then tried to see how well hypotheses fitted in statistical terms. At least novelists or consumer journalists would not know they were writing material that economists might examine in attempts to appraise theories; unlike the providers of statistical data for official publications, or the respondents in case studies, they would not be expected to be liable to bend what they said in order to dupe or pandering to economic researchers.

In the pages that follow, I outline hypotheses that seem worthy of serious investigation and I describe pertinent research methods, but I provide no new systematic investigation myself. I keenly look forward to seeing my suggestions taken up in future by those with a greater comparative advantage than myself in empirical work—either by academics who have more experience than I in such lines of enquiry and whose minds are not overflowing with theoretical ideas, or by final year honours students and postgraduates who are required to produce empirically-based economics or marketing dissertations.

However, the fact that I have not built this work around an original empirical study should not lead readers to jump to the conclusion that my analysis lacks empirical content. Reference is made to many previous but relevant investigations by authors in a variety of disciplines. The analysis is also replete with factual examples from everyday life. (As one who makes pretty decent choices in respect of matters such as food, appearance, what car to drive, and so on, I have found it hard to avoid being on the receiving end of the kinds of reactions that people come up with in the face of consumers who challenge the ‘conventional wisdom.’) Particularly conspicuous will be my tendency to highlight in parentheses pertinent phrases that crop up so often in everyday life that they have become clichés—for example, ‘stuck in a rut’ or ‘settling down’. These more anecdotal pieces of information about how the world sometimes seems to work cannot of themselves tell us how frequently particular propositions could be found to have been disconfirmed. But they may in some minds serve to suggest that, in some cases at least, the possibilities that I outline warrant serious consideration in advance of more systematic empirical work that may be able to demonstrate past tendencies in respect of disconfirmation frequencies. They usually serve in this role by raising doubts about the generality of orthodox conclusions whilst being consistent with the alternative analysis that I propose.
to the investigator, and that sample sizes are too small. (Two classic instances of such defences are Machlup, 1946, and Robinson, 1939, p. 539, respectively. Forty years after it first appeared, Machlup's paper is still used with tedious regularity as a club with which to fight back against intrusive behavioural ideas.) The orthodox view plays down the extent to which published data are themselves products of information-gathering processes involving human decision makers and the asking of questions (Morgenstern, 1963), while drawing little attention to the possibility that published econometric work may be misleading as a result of the non-revelation of 'poor' results from slightly different data series or functional forms, or more devious instances of 'data mining' (Feige, 1975). Sometimes, the claims of neoclassical theorists to the effect that their ideas have support from hundreds of econometric studies border on the downright fraudulent—see Cvet and Simon (1983) for an expose that deserves to be more widely known.

If all observations, being theory laden, are open to bias then it may not be unwise to seek out diverse sources of them in the hope that possible inconsistencies, anomalies and biases will be revealed. And here, when I say diverse, I really mean diverse, not simply formal case study/market research work to supplement econometric analysis of published data. I am quite prepared to consider the possible implications of my own and other people's casual observations of behaviour and see if these can be argued to be inconsistent with my own and other people's ideas. Such observations may not be obtained under 'controlled conditions' or from systematic search, but they may at least make one stop and question the basis of some things that some economists believe. What writers say in novels and consumer magazines may likewise provide useful material that can be subject to scrutiny for possible inconsistency with particular theoretical notions about the bases of choice: for example, since uncovering the psychological material employed here in Chapter 4, I have been repeatedly struck by the way in which the nature of human action has been portrayed in a similar way in novels (J.B. Priestley's works in particular have provided a whole series of examples). Of course, my reading is selective and I am trying to see whether I can make a particular interpretation fit, but I would also be selective if I gathered data for econometric estimations and then tried to see how well hypotheses fitted in statistical terms. At least novelists or consumer journalists would not know they were writing material that economists might examine in attempts to appraise theories; unlike the providers of statistical data for official publications, or the respondents in case studies, they would not be expected to be liable to bend what they said in order to dupe or pander to economic researchers.

In the pages that follow, I outline hypotheses that seem worthy of serious investigation and I describe pertinent research methods, but I provide no new systematic investigation myself. I keenly look forward to seeing my suggestions taken up in future by those with a greater comparative advantage than myself in empirical work—either by academics who have more experience than I in such lines of enquiry and whose minds are not overflowing with theoretical ideas, or by final year honours students and postgraduates who are required to produce empirically-based economics or marketing dissertations.

However, the fact that I have not built this work around an original empirical study should not lead readers to jump to the conclusion that my analysis lacks empirical content. Reference is made to many previous but relevant investigations by authors in a variety of disciplines. The analysis is also replete with factual examples from everyday life. (As one who makes pretty deviant choices in respect of matters such as food, appearance, how to drive, and so on, I have found it hard to avoid being on the receiving end of the kinds of reactions that people come up with in the face of consumers who challenge the 'conventional wisdom'.) Particularly conspicuous will be my tendency to highlight in parentheses pertinent phrases that crop up so often in everyday life that they have become cliches—for example, 'stuck in a rut' or 'settling down'. These more anecdotal pieces of information about how the world sometimes seems to work cannot of themselves tell us how frequently particular propositions could be found to have been disconfirmed. But they may in some minds serve to suggest that, in some cases at least, the possibilities that I outline warrant serious consideration in advance of more systematic empirical work that may be able to demonstrate past tendencies in respect of disconfirmation frequencies. They usually serve in this role by raising doubts about the generality of orthodox conclusions whilst being consistent with the alternative analysis that I propose.
The role of such diverse sources of evidence should not be confused with my use of what one might call the 'hypothetical story'. To help clarify in readers' minds how a particular group of propositions work, I often employ scenarios that refer to familiar situations in everyday life. Sometimes particular scenarios were chosen very much in the light of personal experience or things that other people have said. Other scenarios are entirely imaginary, as are many details of the experience-inspired ones. Although as a rule I treat with scepticism any proposition that I cannot discuss in terms of a seemingly plausible scenario, it must be understood that I am not asking readers to take such scenarios as general statements about precisely how the world has worked on some occasions in the past; they are merely devices designed to aid the comprehension of theoretical propositions and problems. Of course, this is not to say that they may not provide the inspiration for future carefully conducted case studies of how people think and choose.

A diverse collection of activities and consumer goods figure in this book in relation to various kinds of evidence and illustrative scenarios, including family planning, holidays, cameras, television programmes, hi-fi systems, career paths, cars, houses, furniture and food. However, most commonly discussed are choices that relate to motoring (particularly in Chapter 10). The wide-ranging coverage may help to underline the potentially broad significance of my arguments, whilst concentration on a particular area of choice may help reduce my liability to the charge that I am selecting examples in an unsystematic manner in order to bolster up what I have to say. Motoring was chosen for most frequent discussion for a number of reasons:

1. Cars have been a particularly popular subject in previous studies of the relationship between brand sales and product attributes.
2. Motoring expenditure is one of the largest components of the budget of the typical household and involves choices that consumer affairs organisations find particularly prone to result in buyer dissatisfaction. (The importance assigned to motoring might also be seen as evidenced by the extent of media headline coverage given to announcements of changes in the price of petrol.)

3. It is easy to talk about people choosing cars as multidimensional products without it being necessary to mention characteristics that are likely to be meaningless to the general reader. This was very much on my mind when I needed a focus for a discussion of the relationship between product lifecycles and the decision making procedures employed by consumers. The car market might seem rather slow-moving in technological terms compared with, say, the markets for home computers or electronic keyboards, yet it was perfectly adequate for my purposes. I did not have to write whilst feeling personally distant from the product, as would have been the case with home computers, and neither was I running the risk of bewildering the vast majority of readers by discussing verdicts in multiple keyboard tests from 'home recording and electronic music' magazines which refer to mysterious characteristics such as 'musical instrument digital interface (MIDI) compatibility'. If economists themselves are also consumers who are in reality not fully informed about which characteristics are available and the purposes they serve, an economist writing about consumer behaviour has to be very careful indeed in choosing examples that will be generally accessible.

1.3 OUTLINE OF THE REST OF THE BOOK

In deciding how to structure this book, I felt it necessary to do two things: to make the ideas accessible to readers coming to them with the preconceptions of conventional economics, and to ensure that the analysis followed the helical conception of the unfolding of economic processes in historical time that I outlined earlier. Thus in Chapter 2 I attempt to construct first a bridge between orthodox ideas and the analysis I subsequently develop. The chapter shows that some economists have modified the traditional static theory in a way which enables it to accommodate new products as well as price changes. This modification portrays households as if they rather resemble firms, and as if they make choices with a view to the characteristics that can be obtained by engaging in particular transactions. The latter idea is greatly emphasised in empirical work in marketing which economists rarely mention. The bridging chapter also discusses this work and argues that marketers who are surprised by poor statistical
The role of such diverse sources of evidence should not be confused with my use of what one might call the "hypothetical story". To help clarify in readers' minds how a particular group of propositions work, I often employ scenarios that refer to familiar situations in everyday life. Sometimes particular scenarios were chosen very much in the light of personal experience or things that other people have said. Other scenarios are entirely imaginary, as are many details of the experience-inspired ones. Although as a rule I treat with scepticism any proposition that I cannot discuss in terms of a seemingly plausible scenario, it must be understood that I am not asking readers to take such scenarios as general statements about precisely how the world has worked on some occasions in the past; they are merely devices designed to aid the comprehension of theoretical propositions and problems. Of course, this is not to say that they may not provide the inspiration for future carefully conducted case studies of how people think and choose.

A diverse collection of activities and consumer goods figure in this book in relation to various kinds of evidence and illustrative scenarios, including family planning, holidays, cameras, television programmes, hi-fi systems, career paths, cars, houses, furniture and food. However, most commonly discussed are choices that relate to motoring (particularly in Chapter 10). The wide-ranging coverage may help to underline the potentially broad significance of my arguments, whilst concentration on a particular area of choice may help reduce my liability to the charge that I am selecting examples in an unsystematic manner in order to bolster up what I have to say. Motoring was chosen for most frequent discussion for a number of reasons:

1. Cars have been a particularly popular subject in previous studies of the relationship between brand sales and product attributes.

2. Motoring expenditure is one of the largest components of the budget of the typical household and involves choices that consumer affairs organisations find particularly prone to result in buyer dissatisfaction. (The importance assigned to motoring might also be seen as evidenced by the extent of media headline coverage given to announcements of changes in the price of petrol.)

(3) It is easy to talk about people choosing cars as multidimensional products without it being necessary to mention characteristics that are likely to be meaningless to the general reader. This was very much on my mind when I needed a focus for a discussion of the relationship between product lifecycles and the decision making procedures employed by consumers. The car market might seem rather slow-moving in technological terms compared with, say, the markets for home computers or electronic keyboards, yet it was perfectly adequate for my purposes. I did not have to write whilst feeling personally distant from the product, as would have been the case with home computers, and neither was I running the risk of bewildering the vast majority of readers by discussing verdicts in multiple keyboard tests from 'home recording and electronic music' magazines which refer to mysterious characteristics such as 'musical instrument digital interface (MIDI) compatibility'. If economists themselves are also consumers who are in reality not fully informed about which characteristics are available and the purposes they serve, an economist writing about consumer behaviour has to be very careful indeed in choosing examples that will be generally accessible.

1.3 OUTLINE OF THE REST OF THE BOOK

In deciding how to structure this book, I felt it necessary to do two things: to make the ideas accessible to readers coming to them with the preconceptions of conventional economics, and to ensure that the analysis followed the logical conception of the unfolding of economic processes in historical time that I outlined earlier. Thus in Chapter 2 I attempt to construct first a bridge between orthodox ideas and the analysis I subsequently develop. The chapter shows that some economists have modified the traditional static theory in a way which enables it to accommodate new products as well as price changes. This modification portrays households as if they rather resemble firms, and as if they make choices with a view to the characteristics that can be obtained by engaging in particular transactions. The latter idea is greatly emphasised in empirical work in marketing which economists rarely mention. The bridging chapter also discusses this work and argues that marketers who are surprised by poor statistical
results are often blind to alternative processes whereby consumers could often be evaluating the different characteristics mixes available to them.

Chapter 3 takes on seriously the idea that it may be useful to explore similarities between households and firms. However, it argues that to get very far we could do better to use the recent behavioural literature on firms and corporate strategy as our reference point, instead of continuing to focus on neoclassical production theory. To do full justice to this material, especially that concerning the implications of ‘internalisation theory’ for the study of consumer behaviour, an entire book would be required. However, even the limited treatment provided in Chapter 3 should suffice to convey an unsettling message to readers who are used to the determinacy of neoclassical economics. The chapter highlights the ambiguities that abound in respect of strategic decision making and carries the implication that it is all too easy for consumers to end up ‘jumping out of the frying pan and into the fire’ in attempting to manage their exposure to hazardous situations. For the behavioural economist, this ambiguity is not a source of despair but a signal to consider new questions, such as ‘what will consumers make of the sequels to their choices?’ and ‘to the extent that they feel new strategies or tactics are required, how might they judge what to do?’ In Chapter 4, I begin investigating these issues and break with conventional practices by incorporating psychological material on consumer motivation. The kind of psychology employed – personal construct theory – happens to mesh very well with my focus on turbulence and strategic aspects of choice, since it is built around the theme that people may usefully be seen as if they are essentially concerned with trying to predict and control their lives.

Chapters 5 and 6 use this psychological foundation to move further around the helix, examining processes whereby consumers gather information about possibilities, interpret it and, in some cases, change their minds and form new expectations about what they could be doing with their lives as well as about which goods might in various ways help towards the attainment of their goals. Chapter 5 is particularly concerned with the forms that expectations may take, while Chapter 6 devotes a good deal of attention to possible determinants of resistance to change and to techniques for investigating and anticipating such phenomena.

By the end of Chapter 6, we will have completed one full loop of the helix, arriving back at the stage of consumers having expectations on which choices of the kinds discussed in Chapters 2 and 3 might depend. It is then time to re-examine, in the light of the analysis of expectation formation, how people may make their choices in the face of complexity and ignorance about the future. Chapters 7 and 8 deal, respectively, with these two issues. What emerges in them is at times very different from the ideas discussed in Chapter 2. In particular, I call into question the general principle of substitution—the notion that everything has its price—that is so central to the research programme of neoclassical economics. Chapter 9 is an attempt to show how theorists have reacted to previous moves away from the substitution idea and seeks to demonstrate that the issue warrants far more careful attention than it usually receives. The reason for devoting a chapter to this task is that the implications of the ideas in Chapters 7 and 8 turn out in Chapter 10 to be far from trivial. It seems natural to devote this last chapter to an examination of what a conventional theorist would see as the ‘bottom line’ of consumer theory, namely how it relates to processes of price and non-price competition.
results are often blind to alternative processes whereby consumers could often be evaluating the different characteristics mixes available to them.

Chapter 3 takes on seriously the idea that it may be useful to explore similarities between households and firms. However, it argues that to get very far we could do better to use the recent behavioral literature on firms and corporate strategy as our reference point, instead of continuing to focus on neoclassical production theory. To do full justice to this material, especially that concerning the implications of ‘internalisation theory’ for the study of consumer behaviour, an entire book would be required. However, even the limited treatment provided in Chapter 3 should suffice to convey an unsettling message to readers who are used to the determinacy of neoclassical economics. The chapter highlights the ambiguities that abound in respect of strategic decision making and carries the implication that it is all too easy for consumers to end up ‘jumping out of the frying pan and into the fire’ in attempting to manage their exposure to hazardous situations. For the behavioral economist, this ambiguity is not a source of despair but a signal to consider new questions, such as ‘what will consumers make of the sequels to their choices?’ and ‘to the extent that they feel new strategies or tactics are required, how might they judge what to do?’ In Chapter 4, I begin investigating these issues and break with conventional practices by incorporating psychological material on consumer motivation. The kind of psychology employed – personal construct theory – happens to mesh very well with my focus on turbulence and strategic aspects of choice, since it is built around the theme that people may usefully be seen as if they are essentially concerned with trying to predict and control their lives.

Chapters 5 and 6 use this psychological foundation to move further around the helix, examining processes whereby consumers gather information about possibilities, interpret it and, in some cases, change their minds and form new expectations about what they could be doing with their lives as well as about which goods might in various ways help towards the attainment of their goals. Chapter 5 is particularly concerned with the forms that expectations may take, while Chapter 6 devotes a good deal of attention to possible determinants of resistance to change and to techniques for investigating and anticipating such phenomena.

By the end of Chapter 6, we will have completed one full loop of the helix, arriving back at the stage of consumers having expectations on which choices of the kinds discussed in Chapters 2 and 3 might depend. It is then time to re-examine, in the light of the analysis of expectation formation, how people may make their choices in the face of complexity and ignorance about the future. Chapters 7 and 8 deal, respectively, with these two issues. What emerges in them is at times very different from the ideas discussed in Chapter 2. In particular, I call into question the general principle of substitution—the notion that everything has its price—that is so central to the research programme of neoclassical economics. Chapter 9 is an attempt to show how theorists have reacted to previous moves away from the substitution idea and seeks to demonstrate that the issue warrants far more careful attention than it usually receives. The reason for devoting a chapter to this task is that the implications of the ideas in Chapters 7 and 8 turn out in Chapter 10 to be far from trivial. It seems natural to devote this last chapter to an examination of what a conventional theorist would see as the ‘bottom line’ of consumer theory, namely how it relates to processes of price and non-price competition.