MARKETS AND MOTIVES:
Implications for Welfare

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Abstract

Enthusiasm for the expansion of markets in welfare reflects the currency of assumptions derived from rational choice theory among policy-makers. This article reviews recent evidence that calls into question the basic tenet of the rational choice approach - that individual choices are driven by instrumental rationality - and argues that welfare markets require a normative framework which in which trust plays an important role. Experimental evidence from recent work in economic psychology indicates that individuals often display a level of trust in market interactions that is hard to explain on the basis of simple rationality, but that such trust is fragile and easily undermined by egoistic action. Current welfare markets may depend on such trust to a greater degree than is often recognised, and run the risk of depleting the moral legacy of welfare citizenship on which they depend.

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Introduction

Welfare outcomes are influenced by people's behaviour in response to rules, benefits and services. A recent and influential points to 'a fundamental shift in policy-makers beliefs about human nature and behaviour' (Le Grand, 1997, p. 149). The traditional Beveridgean welfare state model supposed that service planners, providers and professionals were motivated by an altruistic concern for the good of the citizenry, while tax-payers and service users were seen to be compliant and trusting, willing to pay the taxes deemed necessary to finance provision and relatively uninfluenced in their behaviour by the availability of universal benefits. The conceptual framework that underlies recent developments in welfare policy is suspicious of the motives of both providers and consumers. It assumes that the rational pursuit of self-interest replaces trust and altruism; that tax-payers are reluctant to finance services unless they think that they will benefit directly; that officials and professionals will tend to regulate the operation of services to serve their interests in a comfortable, interesting and rewarding life rather than the needs of user; and that those entitled to benefits are vulnerable to moral hazard, so that they will shirk responsibilities to maintain dependants or seek employment if the state provides maintenance on proof of need. The solution is the substitution of the discipline of the market (through privatisation or the use of quasi-markets in the state sector) and, where this is inapplicable, direct control of behaviour through a stringent and punitive regime in relation to benefit fraud, maintenance of the work ethic and responsibility for defined dependants.

The new approach in welfare rests on rational choice theory in social science, influenced by the work of Schumpeter (1944), Niskanen (1973) and Downs (1957) on political and bureaucratic behaviour, Breton (1974) and Brennan and Buchanan (1980) on tax payers' behaviour and Murray (1984) and Mead (1986) on the behaviour of service users. While this work is controversial (for example: Granovetter and Swedborg, 1992; Green and Shapiro, 1994; Dunleavy, 1991; Taylor-Gooby, 1995; Coughlin, 1991) the main political groupings in the UK seem convinced of the desirability of sustaining the shift towards market welfare and of tough measures to control fraud. As an account of how people behave in social policy contexts, the rational choice approach has won the practical argument. This article considers some recent evidence about economic beliefs and behaviour in this area. It concludes that markets in welfare rely on a normative framework of trust to constrain and direct instrumental rationality to an even greater degree than do markets in other areas. New developments in market-oriented provision run the risk of exhausting the moral legacy of citizenship welfare on which they depend.

The case for welfare markets

The case for the expansion of welfare markets can be made at both a practical and a theoretical level. The practical argument is based on the claim that markets are responsiveness to effective demand, that they facilitate learning on the part of participants, and that they allow innovations to be rapidly assessed, diffused or discarded: 'only because the market induces every individual to use his unique knowledge of particular opportunities and possibilities for his purpose can an overall order be achieved that uses in its totality the dispersed knowledge which is not available as a whole to everybody' (Hayek, 1968, p. 30). This claim presents markets as particularly appropriate for contemporary economic relationships that are changing rapidly as the result of the introduction of new technology and the rapid growth of cross-national trade. The success of market economies compared with former central and eastern European command systems suggests that markets tend to enable more rapid growth. Similar arguments apply to the restructuring of welfare systems to meet changing patterns of need as working and family life become, for some people, more flexible and uncertain and as the range of options available expands for some, with real growth in living standards, and contracts for others as inequalities grow wider and opportunities at the bottom end of the labour market become more constrained. It highlights the importance of good information for successful market choice.

The theoretical argument derives ultimately from the tradition of welfare economics influenced by the work of Pareto. It can be demonstrated that, providing certain conditions are met, a competitive market system is capable of achieving social 'efficiency', in the sense of a distribution of resources under which the circumstances of no-one can be further improved without making someone worse-off (for example Sloman, 1991, pp. 363-73). In the progress towards efficiency, the gainers can always (in principle) compensate the losers and still have something left over. Thus competitive markets in welfare promise to allocate resources in this area in an efficient manner.

The main conditions assumed in this argument are three: that people should behave rationally, in the sense of choosing activities according to the extent to which anticipated gains exceed the sacrifices involved, so that good information is essential, that the markets should be competitive, so that there is no monopoly or oligarchic power, and that there should be no externalities - circumstances in which the costs or benefits of a transaction fall on a third party, and are not brought home to the market actors. In addition, it is recognised that market activity may under-supply public goods (goods which give a relatively small benefit to an individual in relation to their cost, and are non-rivalrous and non-excludable in consumption). There is no obvious reason why any individual should pay for such goods. Since it is not possible to exclude someone from the good if someone else pays for it, you might as well wait for them to do so. Some of the outcomes of welfare states - civic order, public health, a general reduction in stress, participation in a more competitive national economy - may be seen as (partly) public goods, and there may therefore be problems in ensuring adequate provision if welfare is allocated through markets. Those interested in welfare will also be concerned about the extent to which markets produce inequitable outcomes and damage the interests of poorer groups, since the better-off will always be able to reserve disproportionately more of any good in relation to their numbers.

These conditions are unlikely to be met in practice, and there is a considerable literature about the justification for government intervention to mitigate resulting difficulties, especially in relation to externalities and public goods, competition and equity (see, for example, Friedman, 1996, ch. 2; Le Grand, Propper and Robinson, 1992). There is also a considerable literature about the extent to which groups in the market, guided by their rational pursuit of particular interests, will pursue interventions that militate against free competition and efficiency (Olson, 1965; Reisman, 1990 - see Jordan, 1996, for a path-breaking application to social policy).

The case for markets rests on assumptions about the rational direction of behaviour according to judgements of interest that parallel those identified by Le Grand in his account of the supremacy of the rational choice approach to welfare behaviour by both suppliers and consumers of services in recent policy. One empirical question accordingly concerns the extent to which individuals are in fact guided in their choices in welfare markets by such instrumentally rational considerations. Before this can be tackled a further general characteristic of market systems which relates to the exercise of rationality must also be considered.

Trust and market behaviour

Markets driven by purely egoistic concerns require a regulatory framework to prevent them degenerating into a Hobbesian conflict of each against all, in which transaction costs become excessive. A suitable framework of law, order and monetary regulation is efficiently provided by government. There are two circumstances in which further constraint on the exercise of rational self-interest may be useful, concerning the provision of public goods mentioned earlier and the related notion of social capital.

Since market actors have no incentive to provide public goods, the provision of such benefits may be seen as a legitimate role of government by advocates of market freedom and this is often understood as legitimating state involvement in areas such as public health, communication and education (for example, Freidman, 1966, ch.2). The notion of social capital developed by

Coleman (1990, p.304) and Putnam (1993) refers to 'features of social organisation, such as trust, norms and networks, that can improve the efficiency of society by facilitating coordinated actions' (Putnam, 1993, p. 167). The interesting feature of this argument is that it refers to factors which that cannot be provided directly by government. Putnam illustrates the point in his account of the superior economic development of northern as against southern Italy as the result of the existence and sustenance of a socio-political framework which enabled individuals to have confidence in developing economic relationships. The contribution of such social capital to the differential development of Italian regions is highly controversial (see Bagnasco, 1996, p. 365). Putnam's own example of social capital (also employed by Coleman) is a rotating credit association, and it is open to dispute whether market-oriented banking will fill the role of such an institution with greater or less efficiency.

The extent to which markets are facilitated by social capital is an empirical question. The idea that a certain level of general trust will aid the operation of market systems is plausible. It can be identified in the work of the founding fathers of political economy (see for example Hume's argument that the observation of market self-interest is bound up with 'universal and inflexible observation of the rules of justice'- 1739, pp. 585-6, reflected in Smith's notion of sympathy in his *Theory of the Moral Sentiments* - 1759, see especially, pp. 191-2, and echoed more recently by Coleman - 1986, p. 316). Smith also saw normative factors - 'habit, custom and education' - as essential to maintain the social division of labour which sustained *The Wealth of Nations* (1776, p.120). More recently Fukuyama argues that a high degree of trust contributes to the competitive advantage of the leading capitalist nations (1995, p. 18 - see also Hirsch, 1977, p. 137). Some commentators (for example, Hutton, 1995, pp. 298-300) suggest that reforms to improve confidence and facilitate longer-term transactions are urgently needed. All these arguments imply that an internalized mechanisms of normative regulation as well as external legal control help markets to operate efficiently, and that trust makes a powerful contribution to such 'social capital'.

The argument has merit at face value. Individuals who trust each other are better equipped to contain the transaction costs involved in the detailed and continual checking of contract compliance and can invest in the future with greater confidence that obligations will be honoured. Thus the benefits of egoistic rationality may best be realized when it is accompanied by its contrary. This raises the question of the role played by a normative framework of social capital in welfare markets, alongside the motivations of market rationality discussed earlier.

Trust and welfare markets

The market transactions involved in the new welfare policies generate three contexts in which the role of norms in governing behaviour appear likely to be significant:

> The *lay consumer judgements* made by service users in choice of school, family doctor, dentist or private or local authority provider of care services;
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> The *insurance judgements* made in relation to purchase of insurance to save for eventualities such as retirement or cover risks such as loss of earnings through disability, the inability to meet mortgage payments through unemployment or the need for social care in old age, as state provision for such needs diminishes; and
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> The *entrepreneurial judgements* made by budget-holding professionals such as GPs, case-managers or school, hospital or college managers with devolved or corporate budgets in securing the appropriate service from other state-financed or private profit-making or voluntary agencies, on behalf of lay users.

In relation to ***lay consumer judgement***, the argument that service users simply have to trust professional providers appears at its strongest. In health care, consumers and potential consumers encounter serious information problems. They are simply unable to predict their future needs (Arrow, 1963). Some theoreticians generalise the argument to suggest that the diffusion of 'active trust' (trust which cannot be taken for granted on the basis of institutional relationships, but 'has to be actively produced and negotiated') is a defining characteristic of post-traditional societies precisely because we are increasingly dependent on experts but increasingly aware of the shortcomings of guarantees such as those provided by membership of a profession (Giddens, 1994, p.93). Service users find it difficult to understand complex technical information or weigh the advice of different doctors, are typically not at leisure to compare different providers, may fear that a mistaken choice will produce irreversible consequences and may be influenced by emotions. Similar arguments apply to those confronted with choice between different social care providers (Baldock and Ungerson, 1994, pp. 53-4).

The information requirement may be more nearly met in relation to education. Many people have strong ideas about the quality of schools and there is often a considerable measure of agreement on which are best (David, 1993). However, the capacity to assess and utilise information varies between different social groups, so that middle-class people are advantaged in the education market (Barr, 1993, p. 375). It is also difficult to disrupt a child's education and network by withdrawal so that an exit option will only be used sparingly which may incline users towards loyalty.

In the area of ***insurance judgements*** the problems of information and equity have been extensively discussed. If information is not equally available to the firm providing the policy and the person seeking insurance cover, problems of adverse selection and moral hazard can result. In practice individuals may have a better idea whether they are a good or a bad risk than the insurers do, and those aware of a higher degree of risk will be attracted by a policy written on an 'average need' basis. Under some circumstances, individual behaviour may influence the degree of risk, so that the fact of being insured inclines individuals to act in ways that increase the likelihood of suffering a problem and making a claim - for example, someone who has insurance against unemployment will be less anxious to find a job quickly, and again the average need approach will encounter problems (Barr, 1993, pp. 119-122).

Insurance companies tend to respond to these problems with caution. Policies are offered with a large number of restrictions, or only at high premia, particularly in areas where market actors have acquired little experience. A recent review shows that policies for mortgage protection in the event of unemployment, permanent health insurance and long-term care carry extensive exclusion clauses and appear to charge higher premia than is actuarially justified (Burchardt, 1997, pp. 8, 15, 35, 74), points confirmed by Parker for care insurance (1988) Munro for mortgage protection (1988) and Calnan, Cant and Gabe for medical insurance (1993, p. 15). Good information on the likely risk of needing social care in the UK does not seem to be available, and most UK policies are in fact written on the basis of US experience (Parker and Clarke, 1995, pp. 19-20).

Burchardt's study concludes 'the complexity of the products and the difficulty of estimating the risks that one might face in the future mean that the assessment of the value for money offered by a policy is in many cases impossible' (1997, p. 76). In practice much insurance provision is unattractive. A national sample survey of 1000 individuals by Parker showed that while most of those interviewed overestimated their risk of needing social care in old age (roughly 75 per cent thought they would need care by the age of 85, while the current proportion receiving care is less than 25 per cent) only six per cent expressed interest in purchasing policies on current terms. Similarly, an interview study of 800 households seeking to buy or sell houses in Bristol and Glasgow carried out by the programme found that very few people regarded the terms on which mortgage protection insurance policies were written as sufficiently attractive to purchase them (Munro, 1998). Under these circumstances, a high degree of trust in the product is necessary to enable insurance provision to make headway.

Private pension provision is well established. However, circumstantial factors may influence recent behaviour in the UK. Debate sparked off by the well-publicised Maxwell case (in which occupational pensioners were effectively defrauded by default on unsecured loans from the pension fund of the publishers companies) has severely damaged public confidence in the insurance industry (Goode Committee, 1994). The situation has been exacerbated by the selling of inappropriate pensions to large numbers of purchasers of personal pensions and the continuing delays in compensating those involved (Nobles, 1994).

In relation to ***welfare entrepreneurship*** among budget holders, in a literature drawing on the arguments of Fox and others about industrial organisation (1974, pp. 30-37), it is often argued that relationships of trust improve the efficiency of markets for services where a high degree of professional expertise is essential to check the quality of a service that itself involves considerable professional discretion - such as health care. The transaction costs of checking quality otherwise become inconvenient. Recent studies indicate that trust is important in facilitating the 'high-discretion' work involved and that relationships between professionals that are closer to those of a network than a contract are more appropriate (Walsh, 1995; Flynn, Williams and Pickard, 1996, pp. 142-4).

It is at present uncertain how forcefully such arguments apply to recent quasi-market reforms in the UK welfare state. A recent literature review indicates that although the evidence on which to base a full assessment of the market reforms in the NHS is not yet available, there may be real benefits in terms of cost reductions which may compensate for the increased transaction costs required to maintain trust (Dixon and Glennerster, 1995, p. 311). The response of GPs to the opportunities and pressures of fundholding appears to be diverse (Glennerster, Cohern and Bovell, 1996, p. 55; Ennew and Whynes, 1996, p.3). The particular role played by the normative framework in the success of the system is unclear.

These arguments suggest that, while markets in which behaviour is motivated by instrumental rationality may have theoretical advantages in promoting the efficient use of resources to meet people's needs, their operation in practice is likely to be complicated by difficulties in ensuring that good information is available to all participants, and by problems in safeguarding equity. These difficulties can be mitigated by a framework of trust, so that lay individuals can have greater degree of confidence in decisions made on their behalf by professionals in quasi-markets and in the advice that professional suppliers who are in competition with other suppliers give them about both current health, social care and educational needs and their risk of needing provision at some stage in the future; that parties to insurance contracts can have some confidence that the information supplied by the other party is not misleading; and that service users can have confidence that suppliers are adequately regulated. It is often suggested that the operation of markets in which professionals and managers as budget-holders bargain with suppliers of services on behalf of consumers are facilitated by a high degree of trust, but it is not yet clear on the basis of UK experience whether the possible benefits in responsiveness and innovation outweigh the costs of checking transactions.

Rationality and choice

Economists have traditionally understood market behaviour as governed by a rationality that enables actors to deploy the most efficient available means to achieve their ends, ranking options as preferences from the least to the most attractive by this criterion and acting as what Hollis terms 'rational bargain-hunters' (1987, ch 12). A number of doubts have been raised in recent discussion concerning the value of this approach. Indeed, one recent review concludes: 'there was a time when...the job of the economic theorist seemed to be one of drawing out the often complex implications of a fairly simple and uncontroversial set of axioms. But it is becoming clear that these foundations are less secure than we thought, and that they need to be examined and perhaps rebuilt' (Sugden, 1991, p. 783).

Some doubts concern fundamental theoretical issues. It is hard to understand some valued human activities in terms of the rational deployment of means to an end - for example, going to sleep, being altruistic or creative or spontaneous (Hargreaves-Heap et al, p. 14). There are also problems to do with the analysis of rational activity over time. Preferences change, and the question arises of which preferences should be used to analyze the rationality of current choices. The situation is complicated by the fact that some choices, particularly in areas like education, pension provision, career, parenthood or membership of a religion, influence the choice-sets a person will face at a later date, so that it is difficult to separate the evaluation of options understood as means from the ends of actions.

Ethical preferences may not be treated as ends that can be ranked in terms of preferences, but are often understood to function as absolutes (Sen, 1970). Rationality may be understood as expressive rather than instrumental, so that actions are taken to embody a commitment to a way of life or to a system of values rather than being a means to a particular end (Weber, 1922, pp.24-5; Sen, 1979, p. 95). Theoretical issues relate to macro-sociological approaches which understand human motivations in different ways - for example, Etzioni's communitarian blend of psychoanalytic and rational elements in motivation (1988) or the range of high-modern and post-modern accounts which interpret behaviour as increasingly directed by a life-politics which is both expressive and instrumental (Giddens, 1994, pp. 90-2).

These arguments provide a forceful critique of the notion of instrumental rationality as a comprehensive account of human motivation. There are clearly many areas of social life in which behaviour is not driven by rationality in this sense, including some areas where it is difficult to see what it would mean to be responding simply to rational motives. However, such choices typically involve normative commitments or comprehensive approaches to the direction of one's life and may not be directly relevant to the analysis of everyday behaviour. Lower-level empirical work indicates that there may also be real difficulties in applying the notion of instrumental rationality to more mundane activities. The question arises of whether these criticisms apply in the context of welfare.

A strict account of choice as an ordering of preferences according to the relative advantage that someone might reasonably expect to gain from different options implies among other things, consistency and clarity. If you prefer A to B and B to C now, you should exhibit the same preference order five minutes later, or tomorrow (unless you have changed your objectives or your views on which means will best serve them) and you should be conscious of what that preference order is and of changes in it. There is a considerable quantity of work that demonstrates that, in carefully controlled experimental settings, people's choices do not fit this patterns. Examples are: preference reversal (Allais, 1953; Lichtenstein and Slovic, 1971), the Ellesberg paradox (1961), part-whole bias, cash valuations of risk (Jones-Lee and Loomes, 1996), temporal discounting (Lea, Tarpy and Webley, 1987, pp 218-9), the construction of mental accounts and the use of heuristics to simplify economic judgement (Tversky and Kahneman, 1979).

Much of this work is carried out by economic psychologist interested primarily in the theoretical question of whether economic behaviour can be explained in terms of instrumental rationality. The findings indicate that the way people make choices is influenced by human limitations in processing information, in comparing risks and in evaluating them at different points in time. This has implications for welfare markets, where the problems of getting good information, assessing professional opinion on current risks and needs and of evaluating provision for future contingencies are severe. The evidence on part-whole bias, preference reversal and loss aversion is also of interest.

Temporal discounting

The notion of temporal discounting refers to discrepancies between the valuation of current and future access to goods. From an instrumentally rational economic perspective, individuals should value access to resources at different points in time at the market rate of interest, since that is what they will get for the corresponding resources if they defer consumption. A considerable volume of evidence indicates that this model does not apply. Experiments carried out by economic psychologists indicate that people typically have high temporal discount rates and value the receipt of goods now against more expensive goods (or the same goods plus a cash supplement) in the future (Chapman, 1996; Dittmar, 1994; Hoch and Loewenstein, 1991; Strotz, 1956; Dittmar and Beattie, 1998). Studies ranging from the purchase of clothing to cars to electronic goods and domestic appliances show that individuals act as if they value cheap purchase price against future costs or durability at an extremely high rate, even when their income does not compel a cheap purchase (Thaler, 1992, p. 94).

There appears to be considerable variation in discount rates between individuals, depending among other factors on education and in research carried out in the *Economic Beliefs and*

Behaviour programme, on gender and social class (Dittmar, Beattie and Friese, 1995). In general, discount rates decline the longer the time interval involved and the smaller the benefit, and are greater in the case of gains than losses. The implication is that individuals will under-provide for future needs, whether through insurance or saving, even when they have good information about the likely incidence of those needs. Experimental studies indicate that this may be the case (Connor, 1996, pp.40-1).

Responses to risk

The theory of rational and consistent preferences implies that, if someone has a consistent valuation of a good, they should be willing to pay the same to get it as they would be willing to accept in compensation from someone who wished to deprive them of it. In practice there are very sharp discrepancies in such valuations. In a series of experiments carried out in the *Economic Beliefs and Behaviour* programme individuals were asked how they would balance price against safety for consumer products, effectively valuing improvements or deductions in the associated risks. One experiment tackled the issue of salmonella in eggs. Two matched groups of 49 subjects each were presented with (hypothetical) brands of eggs which carried different risks of infecting the consumer with salmonella. One group was asked what they would be prepared to pay for reductions in the risk, while the other was asked what price reduction they would regard as appropriate to move to a riskier product where safety checks were less. The average amount people were prepared to pay for a halving of the risk was about 40p, with a distribution between 20p and ,1.00 (the price of the riskiest grade being 80p a dozen). However, the reductions expected for corresponding increases in risk were much greater, and over a quarter of the sample stated that they would not be willing to shift to a riskier brand if they were given away free (Beattie, Bullock and Loomes, 1994). These findings are entirely typical of those from a large number of experiments on the way people value risk reduction in everyday life (for example, Viscusi, Magrat and Huber, 1987).

Such judgements have important implications for public spending. One area of current concern is road safety, where it is necessary to ascertain the value set by the public on an individual death or serious injury to support judgements about the level of spending that is rational to reduce the number of injuries by the corresponding amount. In a large number of surveys and experiments individuals value a life lost at a considerably greater rate than the amount they are prepared to pay for measures which would save life, often by several orders of magnitude (see literature reviews by Jones-Lee and Loomes, 1996; Jones-Lee, Loomes and Phillips, 1995). This leads to a dilemma for policy-makers (for a entertaining review of the literature see Adams, 1995, pp. 95-8). A considerable body of similar work focuses on environmental pollution (Sugden, 1996). A corresponding discrepancy in evaluation of errors of commission and omission is recognized in religious doctrines concerning penance and in legal penalties (Thaler, 1992, p. 73).

The finding that individuals set a higher value on increased risk of loss than they are prepared to pay for corresponding improvements in such risks reinforces the evidence of temporal discounting and of the difficulties in getting good information about the value of products such as Permanent Health or Long-term Care Insurance in explanation of the unwillingness of individuals who recognize these needs to insure against them reported earlier. Without compulsion from government, individuals may be unwilling to pay the appropriate amount for the level of provision in areas like public health and in relation to their own future pension and health care needs necessary to protect themselves against risks they appear to value highly (Barr, 1993, pp194-5).

Loss aversion, part-whole bias and preference reversal

The phenomenon of loss aversion, widely noted in experimental work, carries the above observations one step further. From an economic perspective, losses and gains of equal cash value should be equivalent. In experiments covering market behaviour in areas ranging from trading in stocks and shares (Bernartzi and Thaler, 1995) to the purchase of wine (Mackenzie, 1997; Thaler, 1995) to gambling (Hargeaves-Heap et al, 1992, pp. 37-9), and from responses to inflation (Shafir, Tversky and Diamond, 1994) to responses to shopping behaviour (Kahneman and Tversky, 1979; Thaler, 1980) individuals appear attached to the status quo, so that they suffer greater disappointment at a loss than they do satisfaction at a gain of an equivalent cash gain. Traders generally find it more effective to discount a set price (for example for cash or bulk orders) than to increase it for credit card or single item purchases.

Part-whole bias refers to the phenomenon that individuals tend to value something more highly when it is split into its component parts than when it is presented as a whole, so that it is possible to construct experiments where the subjects value A over B as wholes, but where the sum of their separate evaluations of the components of B exceeds their initial valuation of A. Examples include an ingenious experiment based on vouchers for full meals and separate courses at a pizza restaurant carried out in the *Economic Beliefs and Behaviour* programme (Bateman et al, 1996) and work which involves the evaluation of component and integral lottery prizes (Starmer and Sugden, 1993) and consumer goods (Weber et al, 1988).

Preference reversal experiments illustrate the way in which the presentation of information can result in apparently inconsistent choices. In one example, individuals are asked to evaluate two lotteries offering different odds and involving different sums. They typically give one a higher cash value (in the sense that they would not trade it unless offered more money), but say that they would actually prefer to gamble on the other. The reason why the less attractive lottery is given a higher cash value seems to be that it involves higher sums of money although the odds are slightly less favourable and this leads to a higher cash valuation (Grether and Plott, 1979). Other experiments involve the simple device of expressing the same odds in positive or negative terms - for example, whether a surgical procedure is presented as having a 90 per cent success rate or a ten per cent death rate makes a considerable difference to whether people regard it favourably, among surgeons as well as the lay public (McNeil et al, 1982).

These examples pose serious problems for a rigorous instrumental rationality theory of market behaviour. They indicate that people's judgements in welfare markets may be seriously influenced by the presentation of risks and opportunities. This implies at the least a need for regulation of the way in which these issues are presented in relation to insurance and discussions between lay people and professionals about their needs. Loss aversion may also make individuals reluctant to respond to new opportunities. The point is particularly relevant at a time of rapid change, when public services are curtailed and individuals are increasingly expected to take responsibility for organizing savings and insurance schemes for their future needs in areas like health care and pensions.

Explanations of paradoxes of rationality

The most influential explanation of these phenomena arises from the work of Kahneman and Tversky. These writers argue that there is a close analogy between the problems people face when making judgements of physical qualities (such as size and distance) and those which apply to the more abstract assessments involved in economic choice. In both areas 'people rely on a limited number of heuristic principles which reduce the complex tasks ...to simpler judgmental operations. ...These heuristics are quite useful, but sometimes they lead to severe and systematic errors' (Tversky and Kahneman, 1974, p. 1124). For example, we use relative size to judge distance and can be fooled by objects that are out of the usual scale. In practice, we have less immediate feedback from abstract conceptual than from physical errors (we don't trip over the results), and are less likely to develop mechanisms to correct them.

The theory of instrumental rationality requires that people should be coherent and consistent in their choices. In an effect analogous to the way in which perspective influences our apprehension of scale, the authors argue that the context in which a problem of economic choice is set ('framing') may influence our preferences. The order of preferences may apparently be reversed by framing effects, contradicting the consistency requirement of the theory that posits a strictly rational link between preference and choice (see Kahneman, Knetsch and Thaler, 1991; Tversky and Kahneman, 1981; Kahneman and Tversky, 1979).

Just as perception is vulnerable to distortion, so people's awareness of economic costs and opportunities may be imperfect; our thinking capacity is finite and may be subject to other demands; people are influenced by a structure of motives which does not entirely derive from reason. Since we are all aware to some extent of these problems, the use of rules-of-thumb and other heuristics is not in itself irrational. It may be appropriate to modify economics to see 'mind as the scarce resource', and to relate rationality to the problem of directing mental energy where it produces the highest return (Simon, 1978, p. 14). The outcome of these arguments is a *bounded rationality* in which choice is influenced by our limited capacity to deal with these problems and the choices we are likely to arrive at cannot be read off from assumptions about what a perfectly rational and omniscient actor would do.

These arguments suggest real difficulties in the traditional economic account of instrumentally rational action both as a theoretical corner-stone and as an explanation of everyday choice. Loomes concludes a review of current literature on choice under uncertainty: 'The commitment of economists and decision theorists to this assumption [that 'we should model individuals as if they are characterized by some set of fully formed and highly articulated preferences which they can and will apply to every form of decision problem'] has caused them to suppose that the systematic pattern of response observed in many different decision environments are the outward manifestations of some even more sophisticated structure of values than had previously been imagined...instead of trying to devise some general theory of an essentially conventional..form, perhaps we should switch our attention and our efforts to understanding more about the processes by which people select and apply rules/strategies for dealing with particular forms of decision problem..'(1997, p. 11). In a review of studies of rationality (1995, quoted in Hutton 1995, p. 230) Kahneman argues that 'there is compelling evidence that the maintenance of coherent beliefs and preferences is too demanding a task for limited minds. Maximizing the experienced utility of a stream of future outcomes can only be harder'. The notion of rational choice may be too perfect for the world in which we live. Welfare policy which seeks to expand market provision may not achieve improved efficiency in the way that the traditional economic argument claims, because people are often uncertain about their preferences and mistaken in pursuing them. It is particularly difficult to gain good quality information in this area and assess professional judgements. The arguments about framing indicate that many people may encounter difficulties in evaluating the information that is available.

We now move on to consider evidence about the second area of interest identified earlier - the extent to which welfare markets both rely on and are likely to erode a supportive normative framework of trust.

Norms and the market

Recent work in experimental economics has investigated the production of social capital. The results indicate that people often construct and follow normative systems to achieve a preferable outcome to that available from the exercise of individual instrumental rationality. However, learning by experience is capable of undermining as well as reinforcing this process. A simple game, based on the notion of an ultimatum, addresses the question of rationality directly. Two players must divide a stake (provided by the experimenter) according to the following procedure: one proposes an allocation of the stake between them. If the other accepts, the division is adopted - and paid out. If the proposal is not accepted, neither gets anything. From a rational perspective the allocator holds the whip hand. The most that the recipient can get is what is offered and that by accepting it, so the way to maximize one's return is to accept. Following this logic the rational allocator should offer the minimal concession to maximize their own return, confident of acceptance on the part of the co-player.

In fact, most recipients will not accept less than a certain amount (between a quarter and a third of the money) and will cut off their nose to spite their face at offers below that (see reviews by Ghth and Tiertz, 1990, Camerer and Thaler, 1995). The finding is repeated in studies funded by US foundations in third-world and Eastern European countries where stakes that are substantial in real terms can be offered due to differences in the purchasing power of the dollar (Bolle, 1990). This finding is widely interpreted to imply that individuals do employ normative principles to guide economic decisions and that these principles are not immediately undermined by the rationality of circumstances. This suggests that a helpful normative framework can be sustained in a welfare market driven by rational choice.

This point has been disputed by game theorists committed to the importance of instrumental rationality. One of the most prominent UK researchers in this field has extended the game to two rounds to allow substantial opportunities for learning. When the players exchange roles in the second round the amounts offered and accepted fall substantially. The experimenters conclude that individuals tend to choose an equal division when faced with a new problem, because it is 'obvious' and an 'acceptable compromise', but that 'such considerations are easily displaced by considerations of strategic advantage, once players fully appreciate the structure of the game' (Binmore et al, 1985, p. 1180). Similar findings are reported by Weg and Smith (1993) and Suleiman, 1996). In a variant of the game (the Dictator game) in which one player simply allocates the stake and the co-player has no veto and cannot prevent the allocator getting the stake minus the offer to the other player, participants tend to be more egoistical. This implies that norms about fairness are more salient in negotiation than in simple allocation (Hoffman et al, 1994). The conclusion from this work is that people can follow norms of fairness when they seem appropriate and when they are reinforced by the social context in which they operate, but are also capable of learning rapidly to pursue rational self-interest.

A related family of games investigates the capacity to construct normative social capital in terms of an outcome that exceeds the initial contributions of the players. The process can be thought of as mimicking the positive sum process of investment leading to economic growth. A typical game gives participants a stake and invites them to invest in a common pot which is then increased proportionately by the experimenter and distributed equally among the players, including non-investors. Thus individuals create and augment a common resource which has the non-excludability characteristic of a public good and is non-rivalrous in consumption in the sense that although it is divided, the proportion each gets is fixed by a predetermined rule, not by competition. The optimum solution for all is that all should invest and get the biggest increment to their investment which is then equally divided. The problem is that those who invest must share stake and product with those who do not. An egoistic non-investor keeps their own stake and then gets a share in the investment of others plus its product. If every one is egoistical, there is no investment and no product. Instrumental rationality reaps no benefit.

Variations on the game can be devised to examine the impact of differential investments and returns, learning in repeated trials of the game, opportunities for communication between subjects and other factors. The findings of various studies show that, in one-shot games, there is an irrationally high rate of contribution - 40 to 60 per cent (except among economics students where a well-known experiment indicates a lower rate of 20 per cent, Marwell and Ames, 1981). However, in repeated trial games the rate falls to about 16 per cent. If those taking part are allowed to communicate either before or during the game, the rate of contribution increases substantially (Thaler, 1992, pp. 9-15). These findings have been interpreted in different ways. A conclusion common to all interpretations is again that norms of cooperation exist, but that individuals are capable of learning where their own rational self-interest lies in a context where other people are assumed to pursue rational self-interest.

The problem of co-ordinating instrumentally rational choices to achieve an advantageous mutual outcome which is precluded by egoism is well-recognized. An example is voluntary subscription to build a hospital - what any one individual can afford provides little, and the incentive is to keep it, unless convinced that everyone else will act co-operatively and also subscribe. In experimental games based the much-debated exemplar of the 'prisoner's dilemma'[1] and similar problems it is possible to establish conditions of cooperation, where people in fact achieve the best mutual outcome, but such cooperation is typically vulnerable to experience (Lave, 1962, Rapoport and Chammah, 1965; Sen, 1979, p. 106; Thaler, 1992, p. 20; Sugden, 1991, p. 775). In one well-known experiment the most successful strategy was simply to repeat what the co-player did in the previous round, and to punish lack of trust by lack of trust and reward confidence by confidence (Axelrod, 1984). Again supportive norms are not unattainable, but learning can undermine them as effectively as it can reinforce them.

These findings are in some ways supportive of the welfare market project. They imply that market structures will not immediately impose a crude rationality on their participants, so that the normative framework which is desirable to reduce transaction costs and to enable the market to meet needs will not necessarily fall victim to egoism. At the same time, people learn rapidly in market contexts and will respond appropriately to behaviour founded on contrary norms. There is a real fragility to the normative frameworks in which welfare markets flourish. Positive action on the part of government may be required to sustain them.

Some empirical evidence

It is difficult to evaluate the impact of the shift to a market-oriented welfare system, since many changes are recent. Work on attitudes to tax and spending, to the provision of care for older people, to owner occupation and social housing and to social security fraud in the *Economic Beliefs and Behaviour* programme indicates two things: first, the attitudes that people express do not simply reflect the instrumental rationality which Le Grand points out is assumed in the new welfare model. Secondly, there is considerable disquiet about many of the new measures. Whether this evidence on attitudes will translate directly into behaviour is uncertain.

The British Social Attitudes survey study of attitudes to public spending concludes 'although people are less likely to advocate large increases in public spending when the personal tax consequences are spelled out to them..a comfortable majority nonetheless supports increases in spending on at least one or more of the core areas of health, education and universal welfare benefits. There is no evidence either that richer people are less in sympathy than poorer ones with increases in public spending, even if they are asked to pay a higher share of the tax burden to finance them' (Brook, Hall and Preston, 1996, p. 200). Access to private alternatives to state education and health care makes little difference to attitudes (pp. 197-8).

Surveys of 800 home-owners and buyers in Bristol and Glasgow carried out in 1995 showed that, while there was strong evidence of self-interest (for example, 76 per cent of the sample disagreed with the phasing out of mortgage tax relief) there was also strong support for more altruistic policies. Eighty-six per cent of those interviewed believed that the government should expand the provision of social housing (Munro, 1996, p. 4). Sixty per cent of a representative national sample interviewed for the study of the finance of care for elderly people, felt that the state should pay for care either for everyone or for those who could not afford it. Of these 84 per cent agreed that the state should pay if this led to a tax increase of ,100 a year and 57 per cent if it led to an increase of ,500 a year (Parker and Clarke, 1996b, tables 5 to 8). These findings are more difficult to interpret since the motives for supporting state provision may be self-interested (concerned with the risk of needing care) rather than altruistic (concerned to meet the needs of others). There was no obvious relationship with obvious indicators of need such as age, health or family structure. However, individuals do appear willing to pay tax increases necessary to finance support, implying that they do not follow rational self-interest to the extent of seeking to free-ride on state services financed by others.

Evidence of disquiet about the spread of market relations in welfare emerges in the concern about privatization and the individualization of responsibility expressed in discursive interviews in these studies (Taylor-Gooby, 1998, ch.1) and, most strongly, in the attitudes expressed in qualitative research on petty social security fraudsters in Luton and Brixton, carried out in 1995. This survey showed that for the most part, Income Support and Housing Benefits fraud was opportunistic rather than instrumentally rational. Typically, individuals had discovered that it was possible to claim while working casually, and did not plan and execute fraud as a response to economic incentives. They felt unhappy and anxious about the role of fraudster and that their citizenship was effectively impoverished by the punitive regime and meagre benefits offered by the welfare state (Dean , 1996, p. 20).

Conclusion

This article points to two problems with the assumptions about the motives and behaviour of individuals making choices within welfare markets current in the mainstream of policy debate: first, individual capacity for rational choice is constrained by psychological and practical factors which are likely to result in lower levels of future provision than are necessary to meet the needs people recognize. Secondly, markets in welfare are likely to depend to an even greater extent than elsewhere in other areas on a normative framework of trust, due to the importance of professional judgements, inscrutable to the lay service user, and the difficulty of assessing relevant future risks and products available to meet them. Some research findings from the ESRC programme provide a tentative indication that normative principles more appropriate to universal citizenship provision than to individual responsibility for their own needs in a competitive market are current among many users of welfare services.

These findings support three conclusions: first it is striking that market systems have become so popular in welfare policy at a time when the body of evidence that calls into question to foundation of market theory in the notion of economic rationality is increasingly influential among academic commentators. The expansion of markets in this area must be accompanied by a strong regulatory framework. Secondly, if expanded market systems are to serve the traditional equity concerns of welfare, compulsion will be required, since many people will not choose to provide adequate cover for themselves. This will generate conflict with the claim that the market expands freedom of choice. Finally, it is an open question whether the welfare markets at present in operation are sustained by a moral legacy from the culture of welfare state citizenship and whether an instrumental logic will deplete that legacy over time, so that the markets become less efficient.

Footnote

(1) ***Prisoners' Dilemma Game*** This is a much-discussed hypothetical example which illustrates the difficulties rational actors can face in achieving the most desirable outcome under circumstances where the outcome of choices made by each depends on the action of the other. Two prisoners, held in separate cells face a choice between turning state evidence or keeping quiet. If both refuse to speak, they will receive a light sentence. If one confesses, that one goes free and the other receives a long term. If both confess, they get a medium sentence. Rationality suggests confession - the options then are a medium sentence (if the other also confesses) and going free. The best outcome for both (keeping quiet and getting a short sentence) is unattainable through the individual exercise of reason, since each will reason that it makes sense for the other to confess and escape the heavy sentence meted out to the non-confessor.

Bibliography

J.Adams (1995) Risk, UCL Press, London.

K.Arrow (1963) 'Uncertainty and the welfare economics of medical care', American Economic Review, vol 53, pp. 941-73.

A.Bagnasco (1996) Review of Making Democracy Work, International Journal of Urban and Regional Studies, pp.359-65.

I.Bateman, A.Munro, B.Rhodes, C.Starmer and R.Sugden (1996) 'Does part-whole bias exist?'(mimeo, presented at RES annual conference).

J.Beattie, S.Bullock and G.Loomes (1994) 'Refinement(?) of Preferences(?) in contingent Valuation Experiments', EBB London Conference, December, mimeo.

S.Bernartzi and R.Thaler (1995) 'Myopic loss aversion and the equity premium puzzle' Quarterly Journal of Economics, vol 110, no. 1, pp. 93-126.

K.Binmore, A.Shaked and J.Sutton (1985) 'Testing cooperative bargaining theory', American Economic Review, vol 75, 1178-80.

G.Brennan and J.Buchanan (1980) The Power to Tax: analytical foundations of the fiscal constitution, Cambridge University Press.

A.Breton (1974) The Economic Theory of Representative Government, Aldine Press, Chicago.

T.Burchardt (1997) What Price Security? WSP 129, STICERD, LSE.

M.Allais (1953) 'Le comportement de l'homme rationel devant le risque: critique des postulates et axiomes de l'ecole americaine', Econometrica, 21, 503-46.

R.Axelrod (1984) The Evolution of Cooperation, Basic Books, New York.

J.Baldock and C.Ungerson (1994) Becoming Consumers of Community Care, Joseph Rowntree Foundation, York.

N.Barr (1993) The Economics of Welfare, Oxford University Press.

Review, vol 53, pp. 941-73.

F.Bolle (1990) 'High reward experiments without expenditure for the experimenter?', Journal of Economic Psychology, vol 11, pp. 157-67.

L.Brook, J.Hall and I.Preston (1996) 'Public Spending and Taxation' in R.Jowell etal, (eds) British Social Attitudes: the 13th Report, SCPR, London.

M.Calnan, S.Cant and J.Gabe (1993) Going Private: why people pay for their health care, Open University Press.

C.Camerer and R.Thaler (1995) 'Anomalies- ultimatums, dictators and manners', Journal of Economic Perspectives, 9, 202-19.

G.Chapman (1996) 'Temporal discounting and utility for health and money', Journal of Experimental Psychology, vol 22, no 3, pp. 771-91.

J.Coleman (1986) Individual Interest and Collective Action, Cambridge University Pres, Cambridge.

J.Coleman (1990) Foundations of Social Theory, Harvard University Press, Cambridge, Mass.

R.Connor (1996) 'More than risk reduction: the investment appeal of insurance', Journal of Economic Psychology, vol 17, pp. 39-54.

R.Coughlin (ed, 1991) Morality, Rationality and Efficiency: New Perspectives on Socio-Economics, M.E.Sharpe, New York.

M.David (1993) Parents, Gender and Education Reform, Polity Press, Cambridge.

H.Dean (1996) Welfare Citizenship and Economic Rationality: Final Report to ESRC, mimeo, University of Luton.

H.Dittmar and J.Beattie, 1988 'Impulsive and excessive buying behaviour' in P.Taylor-Gooby (ed) Choice and Public Policy, Macmillan, London.

H.Dittmar (1994) The Social Psychology of Material Possessions, Harvester Wheatsheaf, Hemel Hempstead.

H.Dittmar, J.Beattie and S.Friese (1995), 'Gender identity and material decisions', Journal of Economic Psychology, 16, 3, 491-512.

J.Dixon and H.Glennerster (1995) 'What do we know about fundholding in gemneral practice?', British Medical Journal, vol 311, pp 727-30.

A.Downs (1957) An Economic Theory of Democracy, Haven, New York.

P.Dunleavy (1991) Democracy, Bureaucracy and Public Choice, Harvester

D.Ellsberg (1961) 'Risk, ambiguity and the Savage axioms', Quarterly Journal of Economics, 75, 643-69.

C.Ennew and D.Whynes (1996) Can the NHS Reforms Make GPs into Entrepreneurs?, EBB Briefing Paper no 3.

A.Etzioni (1988) The Moral Dimension: Towards a New Economics, The Free Press, New York.

A.Etzioni (1993) The Spirit of Community: Rights, Responsibilities and the Communitarian Agenda, Crown Publishers, New York.

R.Flynn, G.Williams and S.Pickard (1996) Markets and Networks, Open University Press.

A.Fox (1974) Beyond Contract: Work, Power and Trust Relations, Faber and Faber Limited, London.

M.Friedman (1996) Capitalism and Freedom, Chicago University Press.

F.Fukuyam (1995) Trust, Penguin.

F.Fukuyama (1989) 'The end of history', The National Interest, 16 (summer), 3-18.

A.Giddens (1994) Beyond Left and Right, Polity Press, Cambridge.

A.Giddens (1991) The Consequences of Modernity, Polity.

H.Glennerster, A.Cohen and V.Bovell (1996) Alternatives to Fundholding, Welfare State Paper no 123, STICERD, LSE.

Goode Committee (1994) Pensions Law Reform, Cm 2342-1, HMSO.
D.Grether and C.Plott (1979) 'Economic theory and preferecnce reversal phenomenon', American Economic Review, 69, pp 623-38.
D.Grether and C.Plott (1979) 'Economic theory and the preference reversal phenomenon', American Economic Review, 69, 623-38.
S.Hargreaves-Heap, M.Hollis, B.Lyons, R.Sugden and A.Weale (1992) The Theory of Choice, Blackwells, Oxford.
F.Hayek (1968) The Confusion of Language in Political Thought, Occasional Paper no 20, IEA, London.
F. Hirsch (1977) The Social Limits to Growth, Routledge and Kegan Paul, London.
D.Hume (1739) A Treatise of Human Nature, Penguin, 1985, Harmondsworth.
W.Hutton (1995) The State We're In, Vintage Books, London.
B.Jordan (1996) A Theory of Poverty and Social Exclusion, Polity Press, Cambridge.
J.Le Grand (1997) 'Knights, knaves or pawns? Human behaviour and social policy', Journal of Social Policy, vol 26, no 2, pp 149-70.
M Granovetter and R Swedberg (1992) The Sociology of Economic Life Westview.
D Green and I Shapiro (1994) Pathologies of Rational Choice Theory, Yale.
W.Ghth and R.Tiertz (1990) 'Ultimatum bargaining behaviour', Journal of Economic Psychology, 11, 417-49.
S.Hoch and G.Loewenstein (1991) 'Time-inconsistent preferences and consumer self-control', Journal of Consumer Research, vol 17, pp. 1-16.
M.Hollis (1987), The Cunning of Reason, Cambridge University Press, Cambridge.
M.Jones-Lee, G.Loomes and P.Phillips 'Valuing the preventionof non-fatal road injuries', Oxford Economic Papers, 47, 676-95.
M.Jones-Lee and G.Loomes (1996) 'Valuing health and safety: some economic and psychological issues' mimeo.
D.Kahneman and A.Tversky (1979) 'Prospect theory: an analysis of decision under risk', Econometrica, vol. 47, pp.263-91.
D.Kahneman, J.Knetsch and R.Thaler (1991) 'The endowment effect, loss aversion and status quo bias', Journal of Economic Perspectives, 5, 193-206.
D.Kahneman, J.Knetsch and R.Thaler (1990) 'Experimental tests of the endowment effect and the Coase theorem' Journal of Political Economy, vol. 98, pp. 1325-48.
L.Lave (1962) 'An empiricial approach to the prisoner's dilemma game', Quarterly Journal of Economics, vol 76.
S.Lea, R.Tarpy and P.Webley, (1987) The Individual in the Economy, Cambridge University Press.
J.Le Grand, C.Propper and R.Robinson (1992) The Economics of Social Problems, Macmillan.

S.Lichtenstein and P.Slovic (1971) 'Reversals of preferences between bids and choices in gambling decisions', Journal of Experimental Psychology, vol 89, pp 46-55.
G.Loomes (1997) 'Probabilities versus money: a test of some fundamental assumptions about rational decision making' (mimeo).
C.MacKenzie (1997) 'Where are the motives? A problem with evidence in the work of Richard Thaler', Journal of Economic Psychology, vol 18, no 1, pp. 123-37.
G.Marwell and R.Ames (1981) 'Economists free ride: does anyone else?', Journal of Public Economics, 15, 295-310.
B.McNeil, S.Parker, H.Sox and A.Tversky (1982), 'On the elicitation of preferences for alternative therapies' New England Journal of Medicine, no 306, pp. 1259-62.
L.Mead (1986) Beyond Entitlement: the social obligations of citizenship, Free Press, New York.
C.Murray (1984) Losing Ground: American Social Policy 1950-80, Basic Books, New York.
M.Munro (1996) Home Ownership in a Housing Market Slump, EBB Briefing Paper no 4.
M.Munro (1998) 'Choices in owner-occupation' in P.Taylor-Gooby (ed) Choice and Public Policy: the new welfare consumers, Macmillan, London.
W.Niskanen (1973) Bureaucracy - Servant or Master?, Institute of Economic Affairs, London.
R.Nobles (1994) 'Occupational Pensions', Industrial Law Journal, vol 23, no 1, pp 69-72.
M.Olson (1965) The Logic of Collective Action, Harvard university press, Cambridge.
G.Parker and H.Clarke (1995) The Development of Long-term Care Insurance in Britain, Nuffield Community Care Studies Unit, University of Leicester, Discussion Paper 9/95, mimeo.
G.Parker and H.Clarke (1996) Attitudes towards Long-term Care for Elderly people, Nuffield Community Care Studies Unit, University of Leicester, Discussion Paper 1/96, mimeo.
G.Parker and H.Clarke (1996b) 'Paying for Care in Old Age, EBB Briefing Paper no 2.
G.Parker (1998) 'Paying for long-term care in the UK' in P.Taylor-Gooby (ed) Choice and Public Policy: the new welfare consumers, Macmillan, London.
R.Putnam (1993) Making Democracy Work, Princeton University Press.
A.Rapoport and A.Chammah (1965) Prisoners' Dilemma: A study in conflict and co-operation, Ann Arbor.
D.Resiman (1990) The Theory of Collective Action, Macmillan.
J.Schumpeter (1944) Capitalism, Socialism and Democracy, Allen and Unwin, London.
H.Shefrim and R.Thaler (1988) 'The behavioural life-cycle hypothesis', Economic Inquiry, 26, pp. 609-43.
E.Shafir, A.Tversky and P.Diamond (1994), On Money Illusion, MIT working paper, August.
A.Sen (1979) 'Rational fools' in F.Hahn and M.Hollis (eds) Philosophy and Economic Theory, Oxford Un iversity Press.
A.Sen (1970), Collective Choice and Social Welfare, Holden-Day, San Francisco.

H.Simon (1978), 'Rationality as process and as product of thought' American Economic Review, vol 68, no.2, pp. 1-16.
J.Sloman (1991) Economics, Harvester Wheatsheaf.
A.Smith (1759) The Theory of Moral Sentiments, Kelley, 1966, New York.
A.Smith (1776) The Wealth of Nations, Penguin,, 1986, Harmondsworth.
C.Starmer and R.Sugden 1993) 'Testing for juxtaposition and event-splkitting effects', Journal of Risk and Uncertainty, vol 6, pp. 235-54.
R.Strotz (1956) 'Myopia and inconsistency in dynamic utility maximization', Revue of Economic Studies, vol 23, pp. 165-80.
R.Sugden (1991) 'Rational choice:contributions from economics and philosophy', Economic Journal, 101, 751-85.
R.Sugden (1996b) 'Choice and safety', Choice and Beliefs, EBB Newsletter, no 2, pp. 3-4.
R.Suleiman (1996) 'Expectations and fairness in a modified ultimatum game', Journal of Economic Psychology, 17, 531-54.
P.Taylor-Gooby (1995) 'Comfortable, marginal and excluded' in R.Jowell et al (eds) British Social Attitudes, the 12th Report, SCPR Dartmouth.
R.Thaler (1980) 'Towards a positive theory of consumer choice', Journal of Economic Behaviour and Organisation, 1980, vol 1, pp.39-60.
R.Thaler (1992) The Winner's Curse, Free Press, New York.
R.Thaler (1995) 'Mental accounting and the real cost of wine', Choice and Beliefs, EBB Newsletter no1, p8.
A.Tversky and D.Kahneman (1974) 'Judgement under uncertainty: heuristics and biases', Science, no. 185, pp. 1124-31.
A.Tversky and D.Kahneman (1981) 'The Framing of Decisions and the Psychology of Choice', Science, vol 211, , pp. 453-8
W.Viscusi, W.Magrat and J.Huber, (1987) 'An investigation of the rationality of consumer valuations of multiple health risks', Rand Journal of Economics, 18, 465-79.
K.Walsh (1995) Public Services and Market Mechanisms, Macmillan, Basingstoke.
M.Weber (1922) Economy and Society, Bedminster Press, New York.
M.Weber, F.Eisenfuhr and D.von Winterfeldt (1988) 'The effects of splitting attributes on weights in multiattribute utility measurement', Management Science, 34, pp 341-445.
E.Weg and V.Smith (1993) 'On the failure to induce meagre offers in ultimatum games', Journal of Economic Psychology, 14, pp 17-32.
R.Wilkinson (1996) Health and Inequality, Routledge.