brief chapter entitled The Physical Environment, he does not discuss the rise of 'green', 'politically correct' consumption strategies and the role of moral codes as constraints on choices; secondly, while his discussions of the socio-economics of the family include useful material on joint decision making, little attention is given to the impact of the feminist movement on roles and choices; thirdly, the social psychology of choice might usefully have been raised in respect of the economics of financial markets in the boom–bust period associated with deregulation in the mid-1980s; finally, he could have considered the rise of alienated subcultures due to persistent failures of attainments to match aspirations, and the impacts that this has on expenditure in areas such as social services, vehicle insurance and security systems.

Much of the material surveyed in this book would be familiar to students taking a broad social science degree that included units on sociology, social psychology, organisational behaviour, and the kind of introduction to consumer behaviour also provided to students of marketing. Baxter's book deserves to find a place on these students' reading lists if their programmes also include training up to intermediate level in economics, for it should enhance skills in integrative thinking. It is less effective as a work likely to be construed by mainstream academic economists as an introduction to behavioural economics. For one thing (I suspect partly due to the range of material covered), some important related books are not discussed (for example, Amitai Etzioni's *The Moral Dimension*) and little attention is given to papers in *Journal of Economic Psychology*. Moreover, Baxter's focus on what is known about behaviour comes at the cost of excluding a serious consideration of 'new institutionalist' literature on economic organisation in the face of bounded rationality, that is closely related to early work by Herbert Simon, James March, and Richard Cyert on the behavioural theory of the firm. The book will also be a disappointment for confirmed behaviouralists hoping for a convenient guide to developments in the literature between 1988 (when Baxter's first, rather more narrowly focused book *Social and Psychological Foundations of Economic Analysis* appeared) and 1992, for references over this recent period are almost nonexistent.

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Microfoundations: A Critical Inquiry. By JANSSEN (MAARTEN C. W.). (London and New York: Routledge, 1993. Pp. xix + 198. £35.00 hardback. ISBN 0 415 08631 0.)

Most economists spend little time thinking about what they are doing, or at least do not write about it. This book is an exception, and is derived from Janssen's PhD thesis at the Erasmus University, Rotterdam. It is a methodological study which seeks to explore the relationship between microeconomics and macroeconomics, and the relationship of both to the theory of individual choice. As such the author adopts the position of methodological individualism, and is a thoughtful reflection on what economists do, and what he feels they ought to do.

The fundamental paradigm of explanation in economics is the theory of choice. We explain why an agent has taken a particular action by saying that it was the best option available (there was no better). This paradigm is represented in mathematical terms by the theory of constrained optimisation. Economic theories flesh out this formal schema by making substantive assumptions about how agents rank outcomes and what determines the feasible options. For example, in consumer theory, agents are assumed to rank choices in terms of final consumption of a set of commodities, and choice is limited by the budget constraint.

This paradigm is very powerful, and enables economics to derive results and explain phenomena with minimal assumptions. However, as economists we are not really interested in the decisions of individuals as such, but in the collective outcomes arising from groups of individuals interacting – in what happens to firms, industries, economies, and the distribution of income. These are all aggregate outcomes. Methodological individualism is a reductionist approach that tells us to explain all aggregate outcomes as the result of individual decisions. It is this transition between individual decisions and aggregate outcomes that Janssen explores.

The search for microfoundations for macroeconomics is an interesting case study. Keynes's *General Theory* and associated work created macroeconomics as a discipline apart from microeconomics, to which it was only partly and enigmatically linked. There have been four phases of attempt to reintegrate the two. First, in the 1950s there was Patinkin's neoclassical synthesis, which saw long-run macroeconomic equilibrium (in effect the 'natural rate', although he used the term 'full employment') as a perfectly competitive equilibrium. The reappraisal of Keynes (Clower and Leijunhufvud) in the 1960s gave rise to the neo-Keynesian disequilibrium theory, the 'fix-price models' of Barro and Grossman, and Benassy in the 1970s. At the same time the new classical real business cycle theory was developed by Lucas and others, which sought to interpret economic fluctuations in terms of an intertemporal and dynamic competitive equilibrium. In the 1980s, new Keynesian economics developed a perspective starting from an imperfectly competitive macroeconomic equilibrium. Although all four attempts had very different ways of interpreting how the economy works, they all integrated microeconomics and macroeconomics.

However, Janssen's perspective of methodological individualism (MI) is far more radical than just reintegrating macroeconomics with traditional microeconomics. He sees much of microeconomics itself as inconsistent with MI. For example, real business cycle theory uses the competitive equilibrium. This is a microeconomic theory, but does not provide a theory based on individual choice, since as Arrow pointed out, in a model where all agents take prices as given, there is no explanation of who sets prices. Janssen also rejects the other pillar of modern microeconomics, the Nash equilibrium: 'the notion of Nash equilibrium is not an unavoidable consequence of the view that individuals are decision makers' (page 38). Janssen takes a view that to derive something from the concept of individual choice itself, we must consider the interaction of rational monads in the artificial world so loved by game-theorists. Such rational monads would, he argues, be better described in strategic situations by the equilibrium concepts derived from the notion of iteratively undominated strategies (IUS) and related concepts such as rationalisability. A dominated strategy is one that yields a player a worse payoff than another strategy whatever the other player(s) do. The process of iterative deletion consists in restricting players to undominated strategies, and then iteratively deleting the dominated ones. This process converges on the set of IUS strategies. For Janssen and others, the basic notion of rational choice in a strategic environment can tell us no more than that players will play IUS: 'if the social context is not specified in detail... we cannot predict the set of strategies beyond the notion of IUS', (page 40).

The notion of IUS is weaker than Nash equilibrium. If there is a unique Nash equilibrium, then the two are equivalent: otherwise, there may be many more IUS outcomes. This feature obviously has important implications for macroeconomic models based on multiple equilibria such as Cooper–John coordination models. Rather than multiple discrete equilibria, under IUS there is a continuum of equilibria between the discrete Nash equilibria. Janssen uses this feature to present a model of 'animal spirits' in the last chapter of the book.

At its starkest, Janssen's thesis is that the main body of existing microeconomics and macroeconomics ought to be rewritten from the perspective of MI, and that this implies the adoption of the IUS approach. This seems an unnecessary and fruitless task. It is a rather abstract task to derive the real economy from the hypothetical interactions of the rational monads of the game theorist. Recalling Heidegger, 'we are always already here': individuals always make choices situated in a particular historical position, within a world of customs, conventions, and institutions. MI seeks to explain all this from an imaginary and hypothetical 'original position' without such social institutions. There are uncountable possible worlds, and all we can say as economists is that individual choices and social institutions are mutually consistent. More importantly, Janssen ignores the force of evolution in determining individual choice and collective outcome. Rather surprisingly, the word 'evolution' does not appear in the index: neither do the names Axelrod, Nelson, or Winter appear in the bibliography.

Despite my own disagreement with Janssen's fundamental aim, I greatly enjoyed reading the book. It is well written and has a host of clear illustrations drawn from a wide range of contemporary economic theory. It is stimulating, and well worth a read by those who would like to take a little time to reflect on what we are doing.

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