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BOOK REVIEWS

Marshall's Tendencies: What Can Economists Know? By SUTTON (JOHN). (Cambridge, Mass. and London: MIT Press, 2000. Pp. xvi+122. £15.50 hardback. ISBN 0 262 19442 2.)

Economics accounts for the allocation of resources and the associated interactive decisions of individuals. It explains the past and predicts the future.

A theory imposes restrictions on observations: it claims magnitudes and patterns of dependence over time and across variables. Typically, restrictions follow from models that relate observable and unobservable structures and parameters.

Observations may fail to conform to a theory and thus falsify it. Following Popper (1959), this is hallmark of science; as Feynman (1965) described it, first we guess; then we compute and compare the result of the computation with nature; 'if (theory) disagrees, with experiment, it is wrong; that is all there is to it'. Others, practising scientists and Kuhn (1962), among philosophers, have argued that falsification is not how science progresses; according to Chomsky (1999), '… nothing works like [Popper's method of falsification.] … The question is … is there some other way of looking at the apparently refuting phenomenon, so as to preserve or preferably enhance explanatory power, where part of the phenomenon falls into place and the other half turns out to be irrelevant'? The argument does not claim that falsification would not put an end to a theory; it describes how scientists defend their claims against falsification. Falsifiability and the power to explain and predict, nonetheless, do not exhaust the interest and contributions of a theory: it provides intuition and understanding or, as Weinberg (2001) put it, 'if I had to give an a priori definition of explanation in physics, I would say ''explanation in physics is what physicists have done when the say Aha!'''. But *a priori* definitions (including this one) are not much use.

Neoclassical economics, the currently dominant approach, builds on the premise of equilibrium: not the rest point of a dynamical process; rather, a situation that satisfies the internal consistency necessary for intelligible discourse. The inability to consider out of equilibrium behaviour is, nevertheless, a drawback that game theory, for instance, attempts to overcome.

Whether economics performs adequately its role as a scientific discipline is a question that does concern academic economists.

On the optimistic side, macroeconomic management is credited with the dampening of aggregate fluctuations in the second half of the twentieth century, though Romer (1986) contests the claim.

On the pessimistic side, criticism of the performance of economics comes in many forms. Experimental evidence suggests that individuals, faced with uncertainty or conflict, do not display rational behaviour as economic theory posits; this

work was deemed sufficiently important to be recognised by the 2002 Nobel memorial prize in Economics.

Doubt about the adequacy of economics for the explanation and prediction of phenomena in its scope was also expressed from the very core of economic theory. A conjecture and early work by Hugo Sonnenschein (1973, 1974) and definitive demonstrations by Gerard Debreu (1974) and Rolf Mantel (1974) established that any function of prices that satisfies the minimal requirements of homogeneity or absence of money illusion and Walras' law or the budget constraint can be generated as the excess demand function of individuals that maximise concave monotone utility functions; aggregation dissipates the restrictions that rationality imposes no restrictions on aggregate consumer behaviour.

The result was interpreted as proof of what many had suspected: general equilibrium theory, with fundamentals unrestricted beyond transitivity and decreasing marginal rates of substitution, has no observable implications.

Rumour has it that James Tobin, who held strongly that economics can and should be used to alleviate need and improve general welfare, considered the result of Sonnenschein – Debreu – Mantel as a result that should not have been proved; Kenneth Arrow (1991) asserted that 'in the aggregate, the hypothesis of rational behaviour has in general no implications.'

Recent work has reversed the intuition initially derived from Sonnenschein – Debreu – Mantel. Brown and Matzkin (1996) pointed out that what matters is not the excess demand function for fixed fundamentals; rather, the comparative statics of prices and allocations as fundamentals vary. They proceeded to show that arbitrary comparative statics are not compatible with rational choice and market clearing. Subsequently, Chiappori, Ekeland, Kübler and Polemarchakis (2002) refined the argument by showing that knowledge of the correspondence that associates endowments to equilibrium prices suffices to recover the profile of preference of individuals; thus, rationality and equilibrium not only impose observable restrictions, but they allow for the prediction of the consequences of economic policy interventions. These results, demonstrated in minimal, abstract settings, require elaboration to be taken to the data; but they make convincingly the point that equilibrium economics is falsifiable.

John Sutton has been a leading player in the development of empirical industrial organisation with solid theoretical foundations. In Marshall's Tendencies: What can Economists Know ? he addresses 'the practical difficulties we face in carrying out model selection exercises with a view to testing theories within the framework of the standard paradigm'. He develops the argument as follows:

1. Explanation and prediction in the physical sciences are possible thanks to the presence of strong influences, relative to which, multiple other influences that are operative are secondary: gravitation is a determining influence in the movement of the tides, while meteorological factors, though relevant, are of a lower order of magnitude.
2. There are instances, where the same approach works for economics: non-arbitrage is a determining influence in the pricing of derivative assets, which

accounts for the practical success of asset pricing following Black and Scholes (1973).

3. More often than not, economics does not have recourse to determining influences: in Debreu-Mantel-Sonnenschein, there is no structure to aggregate excess demand as prices vary or similarly, the reaction of an oligopolistic market to an increase in market size is indeterminate.
4. The remedy is (a) not to insist on fully specified models: in Hildenbrand (1983) simple restrictions on the distribution of characteristics suffice to generate the law of demand or (b) in Sutton (1991), a general class of multistage games, that allows for a wide menu of specifications of the entry process, generates a lower on the maximal market share or one-firm concentration ratio.

The focus on the frequent absence of determining influences in Economics is insightful; and it can explain convincingly why economic policy cannot claim triumphs comparable to those of engineers or applied scientists.

Concerning the remedy of not insisting on a full specification or, equivalently, considering classes of models, indeed this is a way to go – possibly the only way. It remains to understand how and to see whether success stories can offer guidelines, asset pricing is a case in point. In a way, it is an instance of a less than complete specification that does the job: fully specified, equilibrium models allow for pricing of all assets – not only of spanned derivatives – but lead to results of indeterminacy, as in Constantinides and Duffie (1996) or Kübler (2003). The insight of Black and Scholes was that the pricing of derivatives decomposes from the general equilibrium pricing of fundamental assets and is solvable. More generally, the method that works is the identification of decomposable, manageable problems.

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The Role of Social Capital in Development: An Empirical Assessment. Edited by GROOTAERT (CHRISTIAAN), VAN BASTELAER (THIERRY) and with a foreword by ROBERT D. PUTNAM. (Cambridge and New York: Cambridge University Press, 2002. Pp. xxii+360. £45.00 hardback, US $60.00 hardback. ISBN 0 521 81291 7.)

Group Behaviour and Development: Is the Market Destroying Cooperation?. Edited by HEYER (JUDITH), STEWART (FRANCES) and THORP (ROSEMARY). (Oxford: Oxford University Press, 2002. Pp. xvii+364 £19.99 hardback. ISBN 0 19 925692 6.)

In recent years there has been renewed interest among economists in understanding the influence of society and culture on individual decisions. A new theoretical and empirical literature examines the nature of social influence, and the way in which it leads to the emergence of norms. On the theory side two main strands can be identified. A game theory literature, with origins in Thomas Schelling's famous papers on neighbourhood segregation, examines how locally uniform patterns of behaviour (i.e. 'norms' or 'conventions') emerge in society. A separate literature, influenced by the work of Robert Putnam and James Coleman, studies how networks of relationships affect individual behaviour and collective choice. Central to this theory is the concept of 'social capital' – i.e. the features of social organisation (specifically, social networks and their associated norms and values) that facilitate coordination and cooperation. The concept of social capital has gained considerable prominence in public policy debates, where it is deemed to be a determinant of the success of poverty alleviation and development programmes. It is to this discussion that the books reviewed here contribute. They are the product of initiatives that generated a number of case studies, which are documented in rich detail by the contributors to the two volumes. The studies are diverse, yet each volume is tightly organised and delivers a consistent message. The books add substantially to the empirical base from which the role of social influences in development will ultimately be assessed, and are therefore both timely and welcome.

Although they have much in common, the books provide an interesting contrast in focus. The studies in *The Role of Social Capital in Development* (hereafter SCD) were undertaken as part of the World Bank's Social Capital Initiative. The threefold objective of the Initiative was 'to assess the impact of social capital on development outcomes, identify cases in which outside assistance facilitated social capital formation, and develop indicators for monitoring social capital' (SCD, page 7). The effort to draw lessons for governments and donors, and for the administration of projects is clearly discernable. The studies do not see, and in fact are not designed to look for, any broad conflict between markets and social capital. In contrast, *Group Behaviour and Development* (hereafter GBD) asks, in its very subtitle, 'Is the market destroying cooperation?' Studies in this collection,while agreeing with SCD about the significance of social norms, express serious reservations about policy shifts that advocate a stronger role for market incentives and material rewards. For instance, Stewart sees a