HOGARTH, ROBIN M. and REDER, MELVIN W. (eds.): Rational Choice: The Contrast between Economics and Psychology, Chicago: The University of Chicago Press 1987. 344 pp, \$30.00.

A conference entitled *The Behavioral Foundations of Economic Theory* was held at the University of Chicago on October 13–15, 1985 [funded by the Irving B. Harris Foundation]. The proceedings of the conference was published as a supplement to the *Journal of Business* [volume 59, number 4, part 2, October 1986]. Now, the University of Chicago Press has reissued the supplement as a book with the title: *Rational Choice*.

The book consists of twenty one essays [of which six are 'comments'] on the behavioral foundations of economic theory. The essays are classified in five categories: (i) Rationality in Psychology: The Contrast with Economics; (ii) Experimental Evidence on the Rationality of Decision Makers; (iii) Panel Discussion; (iv) The Nature and Necessity of the Rationality Postulate in Economic Theory; (v) Behavioral Rationality in Finance: Theory and Anomalies.

In the introductory essay, Einhorn and Hogarth tie in all the contributions in the volume [excluding the essays in the form of comments]. In part I, HERBERT SIMON [Rationality in Psychology and Economics] shows for the conclusions in most analyses in economic theory, the assumption of maximization of subjective utility plays a small [most of the time, inessential] part. Economic analysis relies largely on a set of behaviorally questionable auxiliary assumptions. An exposition of this view of Simon can also be found in his interview with the Challenge magazine [November 1986]. EINHORN and HOGARTH [Decision Making under Ambiguity] focus on the nature of uncertainty in real life choices. Real life choices are different from explicit gambles like rolling the dice, buying lottery tickets, etc., because in real choices the probabilities are not explicitly known. Hence, the choices are made under ambiguity in real life. Moreover, there seems to be a systematic relationship between probability and payoff. Incorporating these two notions, EINHORN and HOGARTH build a model of decision making under ambiguity. The model provides a simple alternative to regret theory/ prospect theory to 'explain' the Allais/Ellsberg paradoxes. TVERSKY and KAHNEMAN [Rational Choices and Framing of Decisions] bring together various strands of research they have undertaken in the last fifteen years to examine the basic postulates of the [expected] utility maximization model. They show that every assumption of von Neumann-Morgenstern is violated in experiments. Therefore, they conclude, the attempts by some economists [for example, the so-called SSB Utility theory of Peter Fishburn] to relax some of the assumptions of the expected utility model will not fix the problem. Most economists would take issue with the validity of the Tversky and Kahneman's conclusion. An economist would discount studies that rely on hypothetical experimental choices where participants lack any incentive to learn.

Part II begins with experiments on fairness by Kahneman, Knetsch and Thaler [Fairness and the Assumptions in Economics]. The experiments demonstrate that most people are concerned about the fairness in the distribution of economic pie

[which economists typically dismiss]. CHARLES PLOTT [Rational Choice in Experimental Markets] surveys the studies conducted to explore the experimental choice markets. It includes a useful update and some interesting results on bidding, speculating and signalling. This survey does not include the experimental studies that use animals like pigeons and rats.

Part III consists of a panel discussion by DONALD T. CAMPBELL [Rationality and Utility from the Standpoint of Evolutionary Biology], JAMES S. COLEMAN [Psychological Structure and Social Structure in Economic Models], JOHN P. GOULD [Is Rational Expectations Hypothesis Enough?] and by LAURENCE E. LYNN [The Behavioral Foundations of Public Policy Making].

Part IV contains insightful essays by two economists. The first essay is by KENNETH ARROW [Rationality of Self and Others in an Economic System]. He criticizes the assumption of complete markets in competitive equilibrium claiming that such an assumption has led economists down the wrong path. He attacks modern macrotheory [i.e., macroeconomics of rational expectations] for relying too much on the auxiliary assumption [echoing Simon's view] of homogeneity among individuals. If all individuals are identical, most of our day to day activities are assumed away! In Arrow's view, the explanation of our daily activities should constitute the main body of economics [in the tradition of Marshall]. The second essay by Lucas [Adaptive Behavior and Economic Theory], on the other hand, defends the methodology of (macro)economic theory using optimization techniques. He summarizes economist's paradigm succinctly: 'We use economic theory to calculate how certain variations in the situation are predicted to affect behavior, but these calculations obviously do not reflect or usefully model the adaptive process by which subjects themselves arrived at the decision rules they use. Technically, I think of economics as studying decision rules that are steady states of some adaptive process, decision rules that are found to work over a range of situations and hence are no longer revised appreciably as more experience accumulates'. I read this position as a modified version of FRIEDMAN'S famous dictum: If a theory predicts well, no matter what the underlying assumptions are, it is a good theory.

In part V, MILLER argues [Behavioral Rationality in Finance: The Case of Dividends] that the current anomalies in Finance [for example, why do corporations pay dividends even in the face of tax penalties] can be explained with the standard economic theory at the market level. KLEIDON [Anomalies in Financial Economics: Blueprint for Change?] echoes the arguments of MILLER: He shows that the alleged excess volatility of stock prices has been overstated in the literature.

Usually a conference of such a diverse group of intellectuals from different disciplines do not produce consensus. This conference is no exception. However, it succeeds in bringing together various points of view on the same platform. This is an important step for an interdisciplinary study. This is the success of the conference.

What I missed most in the volume were the spirited discussions that took place during the conference. As a participant in the conference, I heard profound comments by many. These comments might not have been worthy of a paper each, but they certainly would have enhanced the understanding of the subject matter for a person not present at the conference. The most poignant element missing in the volume is the

BESPRECHUNGEN - COMPTES RENDUS - REVIEWS

witty and sharp piece by George Stigler on the historical relationship between economics and psychology over the last one hundred and fifty years.

University of Wisconsin-Parkside and National University of Singapore TAPEN SINHA