

Matthew Rabin
John Bates Clark Medalist
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Matthew Rabin is an outstanding and strikingly original theorist who has enriched economics by rigorously incorporating well-documented psychological evidence about human behavior into economic models. Rabin is best known for his formal modeling of choice and equilibrium when individual preferences and decisions systematically violate conventional economic assumptions, as observed in experimental settings by psychologists and others. Rabin's contributions have a remarkably wide range of application, including fundamental work on fairness, inter-temporal choice, self-serving biases, and self-control. His work throws light on central economic questions concerning employee/employer relations, addiction, insurance markets, asset prices, and savings behavior.

Fairness in Games. "Incorporating Fairness into Game Theory and Economics," *AER* (Dec. 1993) is a seminal paper that explains why the results of experimental games do not always agree with the standard solution concepts in game theory. Experiments often show that people cooperate to a greater extent than is consistent with their self-interest. Rabin resolves many seeming paradoxes in the theory of games, in particular the experimental outcomes of dictator games, by introducing "kindness functions" into game theory. Players wish to be kind to those who have been kind to them, but to hurt those who have been unkind. Aided by this simple but powerful addition, the theory explains empirical phenomena largely considered aberrational, such as wages in excess of market clearing, voluntarism, and consumer resistance to prices thought to be unfair.

Economics of Self-Control. In a series of influential papers with T. O'Donoghue, Rabin reformulates the theory of procrastination in terms of time inconsistency and explores the implications of procrastinating agents for economic models. In "Doing It Now or Later," *AER* (March 1999) Rabin and O'Donoghue examine one-shot self-control problems and distinguish between the sophisticates, who know their limitations, and naifs, those who do not. In "Incentives for Procrastinators," *QJE* (Aug, 1999) they explore the optimal design of incentive schemes for agents with time-inconsistent procrastinating behavior. In "Choice and Procrastination," *QJE* (Feb. 2001) they demonstrate the conditions under which more choice can make procrastinating agents worse off. By probing more deeply into the theory of time inconsistency as applied to procrastination, Rabin and O'Donoghue have offered a new perspective on policy implications and possible remedies.

Non-Bayesian Decision Making and Deviations from Expected-Utility Theory. In "First Impressions Matter: A Model of Confirmatory Bias," *QJE* (Feb. 1999), with J. Schrag, Rabin models how agents behave when they have "confirmatory bias." People avoid information that fails to correspond to their current view of the world. Such confirmatory bias can result in the belief in false hypotheses, even with an infinite amount of information. Rabin has followed up on this work in "Inference by Believers in the Law of Small Numbers," *QJE* (forthcoming), which provides a more general view of the effects of the law of small numbers, in which people exaggerate the findings of short sequences of signals. In "Risk Aversion and Expected Utility Theory: A Calibration Theorem," *Econometrica* (Sept. 2000) Rabin cleverly shows that expected

utility maximization of a differentiable concave utility function is an implausible explanation of risk aversion since it implies that people will decline bets involving medium-sized potential losses despite arbitrarily large potential gains. He argues that the best explanations for the experimental evidence and the observations of individual behavior concerning risk aversion are loss aversion and mental accounting.

Summary. With the greatest originality, Matthew Rabin has gone further than anyone in demonstrating the explanatory power of a new *genre* of rigorous economic analysis based on psychological evidence. Rabin has been a pioneer in "humanizing" economic theory by bringing theoretical economic models into closer accord with actual behavioral patterns; his work has played a pivotal role in transforming behavioral economics into a distinct and vibrant sub-discipline of economics. Every part of economics will be greatly influenced by Rabin's powerful analyses of decision-making. He is fully deserving of the John Bates Clark Medal.