This book presents microeconomics as an evolving science, interacting with mathematics, psychology, and other disciplines and offering solutions to a growing range of practical problems. It gives extensive and innovative coverage of recent research in cognitive psychology and behavioral economics. This research not only documents behavior inconsistent with some elements of traditional theory, but also advances positive theories with superior predictive power. The research covered includes studies of loss aversion, reference-dependent preferences, the context and framing of choice, hyperbolic discounting and inconsistent intertemporal choice, predictable errors in updating probabilities, nonlinear weighting of probabilities, and prospect theory. Covering results from behavioral and experimental economics along with traditional microeconomic doctrine involves re-balancing three key components of economics: issues, theory, and data. In comparison to traditional texts, this book places more emphasis on experimental data, both when they support received theory and when they reveal anomalies. Thus the book covers both feed-lot experiments that generate conventionally shaped isoquants and choice experiments that cast doubt on the predictive value of expected utility theory. This text offers many opportunities to apply high-school algebra in an economic context and to develop basic skills in linear programming and risk modeling. Through footnotes and parenthetical remarks, it also encourages readers to make good use of any calculus they know. Exercises appear where appropriate in the text; solutions and supplemental problems are collected at the ends of chapters.
Understanding natural resource users' incentives
E. J. Milner-Gulland and Marcus Rowcliffe

in Conservation and Sustainable Use: A Handbook of Techniques
Published in print: 2007 Published Online: January 2008
Publisher: Oxford University Press DOI: 10.1093/acprof:oso/9780198530367.003.0003

This chapter summarizes the methods available for collecting data about people's motivations for natural resource use, thus providing information on the social and economic facets of sustainability. The key methods covered include questionnaire surveys, participatory methods, direct observations, experimental economics, cost-benefit analysis and the use of existing databases such as government records. The emphasis is on effective sampling in order to provide representative quantitative results, but qualitative methods for understanding resource users' motivations are also covered. Research on people can cause significant harm if not carried out sensitively, and ethical issues are examined, outlining the steps needed to avoid any negative impacts of the research. Understanding social and economic sustainability generally requires a case-specific combination of techniques, and a set of case studies is used to illustrate a range of possible approaches.

Measuring Social Norms and Preferences Using Experimental Games: A Guide for Social Scientists
Colin F. Camerer and Ernst Fehr

in Foundations of Human Sociality: Economic Experiments and Ethnographic Evidence from Fifteen Small-Scale Societies
Published in print: 2004 Published Online: January 2005
Publisher: Oxford University Press DOI: 10.1093/0199262055.003.0003

The work of the cross-cultural behavioural experiments project presented in this book is rooted in the logic of game theory and the practices of experimental economics, and this chapter provides an introduction to the fundamentals of behavioural game theory, and the procedures and conventions of experimental economics. It starts by defining the main social preference terms used – self-interest, altruism, reciprocity, inequity aversion, and then sketches game theory in broad terms and describes some basic features of experimental design in economics. Seven games that have proved useful in examining social preferences are introduced; these are the Prisoner's Dilemma Game, the Public Goods Game, the
Ultimatum Game, the Dictator Game, the Trust Game, the Gift Exchange Game, and the Third-Party Punishment Game). The games are defined formally, indicating the aspects of social life that they express, and describing behavioural regularities found in experimental studies; these behavioural regularities are then interpreted in terms of preferences for reciprocity, inequity aversion, or altruism. The final sections of the chapter describe some other games anthropologists might find useful, and draw conclusions.

**How to Do Participatory ABMS**

Michael J. North and Charles M. Macal

in Managing Business Complexity: Discovering Strategic Solutions with Agent-Based Modeling and Simulation

Published in print: 2007 Published Online: September 2007
Item type: chapter

This chapter discusses participatory agent-based modeling and simulation (ABMS). The relationship between participatory ABMS and experimental economics is also considered.

**Beautiful Game Theory**

Ignacio Palacios-Huerta

Published in print: 2014 Published Online: October 2017
Item type: book

A wealth of research in recent decades has seen the economic approach to human behavior extended over many areas previously considered to belong to sociology, political science, law, and other fields. Research has also shown that economics can provide insight into many aspects of sports, including soccer. This book uses soccer to test economic theories and document novel human behavior, thus illuminating economics through the world's most popular sport. The book offers unique and often startling insights into game theory and microeconomics, covering topics such as mixed strategies, discrimination, incentives, and human preferences. It also looks at finance, experimental economics, behavioral economics, and neuroeconomics. The book provides rich data sets and environments that shed light on universal economic principles in interesting and useful ways. It is essential reading for students, researchers, and sports enthusiasts as it shows what soccer can do for economics.
The origin and history of the (social) Preferences Network research project whose results are reported in the book is described. It is one of the research networks in the MacArthur Foundation style of MacArthur Economics Networks founded in 1993, and aimed to bring together economists, anthropologists, psychologists, and other behavioural scientists to develop systematically richer models of preferences according to which people take account of the effects of their actions on themselves and others, and in which the process determining outcomes matters as well as the outcomes themselves. Experimental economics played a large role in this particular network, which to start with was based on work (rooted in the logic of game theory) with undergraduate students, but then expanded into the cross-cultural behavioural experiments project reported in the book. The chapter also presents a short outline of the structure of the volume.

On Sleeping Too Well
George F. DeMartino

This chapter begins to explore the content of the proposed field of professional economic ethics. It examines a range of ethical challenges that academic and applied economist face in their work, and proposals that might help economists respond to these challenges. The chapter focuses on econometric and experimental economics research, including the new field of randomized controlled trials; and then turns to issues that arise in both academic and applied work. These include the need to give regard to the prudential principle while nevertheless moving beyond it to ensure prior informed consent of those the economist purports to
serve; and capacity enhancement to promote the ability of impoverished communities to risk innovation. Moreover, professional economic ethics must emphasize the ethical virtue of humility and the imperative facing the profession to promote pluralism. Finally, the profession must consider institutional reforms that will ensure a deepening commitment to professional ethics.

What Do Laboratory Experiments Measuring Social Preferences Reveal About the Real World?
Steven D. Levitt and John A. List

in Handbook of Experimental Economic Methodology

Published in print: 2015 Published Online: March 2015

The chapter starts by presenting a simple model in which utility maximization is influenced not only by wealth-maximization, but also by an individual's desire to make the right moral choice. It then looks at the empirical evidence. The bulk of the discussion is on the class of experiments that is believed to measure pro-social preferences. The chapter then provides a summary of the most popular games of this type. It then looks at the extent of the differences between what is observed in laboratory experiments and what is seen in naturally occurring environments, and explores how these differences affect the generalizability of experimental results outside the lab. The chapter concludes that, just as is the case with naturally-occurring data, great caution is needed when attempting to generalize lab results out of sample.

Foundations of Human Sociality
Joseph Henrich, Robert Boyd, Samuel Bowles, Colin Camerer, Ernst Fehr, and Herbert Gintis (eds)

Published in print: 2004 Published Online: January 2005

This book is the result of a collaborative effort by eleven anthropologists and six economists, and questions the motives that underlie the ways that humans interact socially, and whether these are the same for all societies, and are part of our nature, or are influenced by our environments. Over the past decade, research in experimental economics has emphatically falsified the textbook representation of
Homo economicus, with hundreds of experiments that have suggested that people care not only about their own material payoffs but also about such things as fairness, equity, and reciprocity. However, this research has left fundamental questions unanswered: are such social preferences stable components of human nature; or, are they modulated by economic, social, and cultural environments? Until now, experimental research could not address this question because virtually all subjects had been university students, and while there are cultural differences among student populations throughout the world, these differences are small compared with the full range of human social and cultural environments. A vast amount of ethnographic and historical research suggests that people's motives are influenced by economic, social, and cultural environments, yet such methods can only yield circumstantial evidence about human motives. In combining ethnographic and experimental approaches to fill this gap, this book breaks new ground in reporting the results of a large cross-cultural study aimed at determining the sources of social (non-selfish) preferences that underlie the diversity of human sociality. The same experiments that provided evidence for social preferences among university students were performed in fifteen small-scale societies exhibiting a wide variety of social, economic, and cultural conditions by experienced field researchers who had also done long-term ethnographic field work in these societies. The results, which are given in chs. 4 to 14, demonstrated no society in which experimental behaviour is consistent with the canonical model of self-interest, and showed that variation in behaviour is far greater than previously thought, and that the differences between societies in market integration and the importance of cooperation explain a substantial portion of the variation found (which individual-level economic and demographic variables could not). The results also trace the extent to which experimental play mirrors the patterns of interaction found in everyday life. The book has three introductory chapters that include a succinct but substantive introduction to the use of game theory as an analytical tool, and to its use in the social sciences for the rigorous testing of hypotheses about fundamental aspects of social behaviour outside artificially constructed laboratories, and an overview and summary of the results of the fifteen case studies.

On the Generalizability of Experimental Results in Economics
Omar Al-Ubaydli and John A. List

in Handbook of Experimental Economic Methodology

Published in print: 2015 Published Online: March 2015
DOI: 10.1093/acprof:oso/9780195328325.003.0022
Publisher: Oxford University Press
Item type: chapter
This study provides an overview of experimental methods in economics, with a special focus on developing an economic theory of generalizability. Given that field experiments are in their infancy, our secondary focus pertains to a discussion of the various parameters that they identify, and how they add to scientific knowledge. This chapter concludes that until more field experiments that build a bridge between the lab and the naturally occurring settings of interest can be conducted, empirically strong conclusions cannot be made on the crucial question of generalizability from the lab to the field. This chapter also responds to the discussion presented in this section.

Handbook of Experimental Economic Methodology
Guillaume R. Fréchette and Andrew Schotter (eds)
Published in print: 2015 Published Online: March 2015
DOI: 10.1093/acprof:oso/9780195328325.001.0001
Item type: book

This book confronts and debates the issues faced by the growing field of experimental economics. For example, as experimental work attempts to test theory, it raises questions about the proper relationship between theory and experiments. As experimental results are used to inform policy, the utility of these results outside the lab is questioned, and finally, as experimental economics tries to integrate ideas from other disciplines like psychology and neuroscience, the question of their proper place in the discipline of economics becomes less clear. The book is divided into four sections, each of which features a set of chapters and a set of comments on those chapters. The book offers a place where ideas about methodology could be discussed and even argued. Some of the chapters are contentious—a healthy sign of a dynamic discipline—while others lay out a vision for thought on how experimental economics should be pursued.

Laboratory Experiments: Professionals Versus Students
Guillaume R. Fréchette
in Handbook of Experimental Economic Methodology
Published in print: 2015 Published Online: March 2015
DOI: 10.1093/acprof:oso/9780195328325.003.0019
Item type: chapter

This chapter establishes what is known about the impact of subjects typically used in experimental economics by reviewing prior studies that have used both the standard subject pool and an unusual pool of
professionals. The papers are loosely organized in four thematic sections: other-regarding preferences, market experiments, information signals, and a miscellaneous group. The results overall suggest that, although there are situations where focusing on students is too narrow, in general the conclusions reached by using the standard experimental subject pool generalize to professionals. Nonetheless, studying professionals can prove insightful in ways that studying undergraduates is not.

**Theory, Experimental Design, and Econometrics Are Complementary (And So Are Lab and Field Experiments)**

Glenn W. Harrison, Morten I. Lau, and E. Elisabet Rutström

in Handbook of Experimental Economic Methodology

Published in print: 2015 Published Online: March 2015
Item type: chapter

This chapter proposes a systematic approach to research where theory, lab results, common sense, field data, and econometrics are all integrated into one’s research toolkit. The approach is illustrated by considering work done on an artifactual field experiment in Denmark. The chapter is organized into four sections. The section entitled “Policy Lotteries” introduces the concept of policy lotteries, giving a few examples. The section entitled “Risk Aversion” discusses how to draw inferences about risk attitudes using the systematic approach that includes conditioning these inferences on smaller-scale lab experiments, on sample selection effects and elicitation methods, on econometric and statistical strategies such as sampling frame and structural estimation approaches, and on theoretical and common sense considerations about out-of-domain predictions. The section entitled “Discount Rates” discusses inferences about discount rates and demonstrate the power of joint estimation of risk and time preferences as motivated by theory. The section entitled “Lessons Learned” expands the joint inference discussion to longitudinal issues such as temporal stability.

**Introduction**

Guillaume R. Fréchette and Andrew Schotter

in Handbook of Experimental Economic Methodology

Published in print: 2015 Published Online: March 2015
Item type: chapter
This introductory chapter provides an overview of the main themes running through this discussion of experimental economics. The time is right for such a discussion because experimental economics is no longer an emerging discipline but one that has matured to the point where it has become integrated into the thinking and curriculum of graduate training. However, along with growth and maturity comes a set of issues that any growing discipline has to confront. These include the proper relationship between theory and experiments; the usefulness of experimental results outside the lab; and the proper place of ideas from other disciplines like psychology and neuroscience in experimental economics.

The External Validity of Laboratory Experiments: The Misleading Emphasis on Quantitative Effects
Judd B. Kessler and Lise Vesterlund
in Handbook of Experimental Economic Methodology
Published in print: 2015 Published Online: March 2015
Item type: chapter

This chapter comments on the papers of Levitt and List and of Camerer. It explains why for most laboratory studies it is only relevant whether the qualitative or directional results of the study are externally valid. It argues that laboratory studies are conducted to identify general principles of behavior and therefore promise to generalize. It then examines whether laboratory experiments live up to this promise. It discusses the extent to which qualitative results persist outside of the lab and how we should respond when they do not. The chapter concludes by arguing that the lab and field methodologies are highly complementary and that both provide important insights to the understanding of economics.

Envy
Richard Smith (ed.)
Published in print: 2008 Published Online: April 2010
Item type: book

For centuries, scholars have argued that envy is the source of much aggressive behavior as well as the root cause of much unhappiness, but it is only recently that there have been attempts to examine the emotion from an empirical perspective. This book is the first of its kind to offer a
comprehensive summary of current theoretical and empirical work on envy, provided by scholars from a range of disciplines. The first section of the book focuses on the rich theological, philosophical, and evolutionary foundations of scholarly thinking on envy. The second section covers the social psychological work on envy and includes chapters on social comparison processes, definitional challenges, the link between envy and schadenfreude, inter-group envy, and fear of envy. The third section covers research on envy from organizational psychology, experimental economics, marketing, neuroscience, and anthropology. The fourth section focuses on the implications of understanding envy for physical and mental health, with chapters on psychoanalytic conceptions of envy, health psychology, and the challenges of coping with envy. A final chapter consists of reflective comments on all the chapters, and brings together recurring themes, making suggestions for future research on envy.

Psychology and Economics: Areas of Convergence and Difference
Tom R. Tyler and David M. Amodio

in Handbook of Experimental Economic Methodology

This chapter highlights three differences in psychology and economic research: the focus of study, what is appropriate research design, and issues involved in the study of economics in the context of the brain. At its core, the clash of methods appears to concern issues of experimental validity that arise when attempting to infer underlying (i.e. “latent”) psychological variables from observable (i.e. “manifest”) responses, such as behavior or physiology. While economists interests have moved toward a greater focus on underlying psychological constructs that are not directly observable, their experimental practices require updating to deal with the new challenges of psychological investigation.

Laboratory Experiments: The Lab in Relationship to Field Experiments, Field Data, and Economic Theory
John H. Kagel

in Handbook of Experimental Economic Methodology
This chapter discusses the ways in which laboratory experiments and field experiments can be complementary in understanding the field setting of interest. It uses two examples: the winner’s curse in common-value auctions and gift exchange in experimental labor markets. It highlights three points. First, learning, which is endemic to most experimental studies, tends to be context specific and difficult to generalize from one environment to another. Second, although hopefully we can all agree on the “facts” of a particular economic experiment, there is typically wide room for disagreement on the interpretation of those facts as they apply to the broader issues at hand. Third, even in cases where the laboratory setting seems rather removed and abstract relative to the field setting one has in mind, the experimental results may be quite relevant to that field setting.

Scientific Explanation in Economics and Econometrics
Bernt P. Stigum

In philosophy, a scientific explanation has four components: a family of sentences, H, to be explained, a list of antecedent conditions, a list of general laws, and arguments that demonstrate that H is a logical consequence of the antecedent conditions and the laws. The chapter explains why such a characterization of scientific explanations is of little use in economics, and presents two different formal characterizations of logically and empirically adequate scientific explanations – one (SE1) for economics and one (SE2) for econometrics. In SE1, H is a family of sentences; the antecedent conditions are axioms of the data universe; the laws are axioms or theorems of an empirically relevant economic theory; and the arguments are the arguments of first-order logic. In SE2, H is a family of statistical relations; the antecedent conditions are axioms of a data universe; the laws are axioms or theorems of an empirically relevant economic theory; and the arguments are the arguments of mathematical statistics. The chapter exemplifies the two schemes with an SE1-explanation of regularities in experimental economics and with an SE2-explanation of regularities in a financial market in which the statistical arguments of formal econometrics are contrasted with the statistical arguments of present-day econometrics.
Chapter 7 discusses two early attempts to measure utility empirically. In 1926, Norwegian Ragnar Frisch applied an econometric approach to measure the marginal utility of money. Following a suggestion from economist Henry Schultz, in 1930, American psychologist Louis Leon Thurstone conducted a laboratory experiment to elicit the indifference curves of an individual. Notably, both Frisch and Thurstone intended measurement in the unit-based sense. Most commentators of the 1930s and early 1940s judged the assumptions underlying both Frisch’s and Thurstone’s utility measurements highly problematic and therefore remained skeptical about the significance of their respective measurements. Moreover, after the mid-1930s and the completion of the ordinal revolution, most utility theorists lost interest in measuring utility in a more than ordinal sense. Among the most vocal critics of Thurstone’s experiment were W. Allen Wallis and Milton Friedman, then two young economists and statisticians who had studied at the University of Chicago.