

## The 2001 SABE Conference: Applied Behavioral Economics

Hugh Schwartz

Abstract: This note outlines the 71 presentations given at the 2001 Conference of the Society for the Advancement of Behavioral Economics (SABE), held at The George Washington University in Washington, DC, June 11-12, 2001, along with the principal discussant comments. It concludes with observations on some major concerns facing behavioral economics.

Keywords: Economic Methodology. Current Heterodox Approaches: Other, also Austrian. Relation of Economics to Other Disciplines. Other Special Topics. Design of Experiments. Household Behavior and Family Economics. Information and Uncertainty. Financial Economics. Public Economics. Health. Welfare and Poverty. Labor Economics. Law and Economics. Industrial Organizations. Business Administration and Business Economics. Economic Development and Technological Change. Socialist Systems and Transitional Economics. Agricultural and Natural Resource Economics. Urban Economics.

## The 2001 SABE Conference: Applied Behavioral Economics

Applied Behavioral Economics: Can It Improve Decisions and Policies? Is It Already Implicit in Successful Decision Making? That was the theme of the provocative 2001 Biennial Conference of SABE, the Society for the Advancement of Behavioral Economics, held at George Washington University's Center for Economic Research, June 11-12, 2001. This special section of the Journal of Socio-Economics, Empirical Approaches to Behavioral Economics, features the two keynote addresses, a synthesis of two papers given by a third author, and two other papers given at the conference. In addition, the Editor of the Journal has included in the issue, a contribution by a well-known behavioral economist who has participated in SABE proceedings in the past. This overview outlines all the conference presentations, including those which were primarily theoretical or methodological in nature, drawing largely on the abstracts and/or conclusions that the authors themselves prepared. In addition, it summarizes many of the discussant remarks. (A more detailed analysis of these and published works on applied behavioral economics is under preparation.)

The two keynote addresses, "The Affect Heuristic" by Paul Slovic and "Interviews as a Valid Empirical Tool in Economics" by Truman Bewley, both reproduced here, led several participants to modify their own presentations somewhat to take account of those initial contributions. Slovic drew on findings by psychologists and investigators in other fields that substantiate the role of emotional as well as analytical factors in decision making. This work, to which he has contributed, led him to propose, as a strong hypothesis, the contention that affect often functions as a decision making heuristic, indeed, that even preference reversal, originally explained in terms of an analytical heuristic, could reflect use of the affect heuristic. Bewley, a prominent econometrician and general equilibrium theorist, used his recent, pathbreaking study of wages based on over 300 interviews with businessmen and labor leaders, to illustrate the value of open-ended interviews to reject theoretical assumptions often made by economists and to uncover explanations missed by more traditional empirical analysis.

### The Origins and Foundations of Behavioral Economics.

Arthur Grey, University of Washington (emeritus), “The Conversation and Argument: Ludwig Wittgenstein’s Counsels in Behavioral Economics.” Considers the philosophy of Wittgenstein as a resource justifying and helping to advance behavioral economics. The discussant, David George of La Salle University noted that the Journal of Economics and Philosophy makes little or no reference to Wittgenstein (or other continental philosophers). He asked about the overlap of Wittgenstein with pragmatism and observed that the paper does not explain just how behavioral economics would be well advised to focus on language in their work, as the paper advocates, but offers two possibilities.

Shlomo Maital, Technion, “Behavioral Economics and the Birth of SABE.” Reflects on the personal experiences of the author in being drawn to this area, in particular, through the interests of and in joint research with his wife, Sharone Maital, a psychologist. Describes the evolution of SABE (based in part on material contributed by John Tomer of Manhattan College) with its broad vision, sounding-board philosophy.

Mie Augier, “Stanford University, “What Can Psychology Teach Economics About the Limits of Rationality? A Survey of Herbert Simon’s Contributions.” An overview of the contributions of Herbert Simon, with emphasis on the role of bounded rationality. Describes Simon’s vision for challenging rational choice theory and for bringing psychology into economics, focusing on the continuity in the evolution of his thought. Discussant Charlotte Phelps, Temple University (emerita) suggested that a revision of the paper be entitled, “Herbert Simon: From His Life to His Models,” and that it be built around an explicit chronology that shows how his life experiences led to the formulation of his models. In commenting on this paper and the following one on Oliver Williamson, she contended that the two have somewhat different definitions of bounded rationality because they address different issues (one, the relationship of the individual and the organization, and the other, organizations and the market) and different audiences.

Mie Augier, “Behavioral Economics at Carnegie Mellon and Beyond: Oliver Williamson’s Contribution to Organizational Economics.” Emphasizes the impact of

Williamson's work on modern organizational economics. Traces the formation of many of his central ideas to his years with the behavioral economics group at Carnegie-Mellon during the early 1960s. Attributes the nuances of opinion between Williamson and his Carnegie colleagues to his earlier Stanford training, his interaction with John Muth and his desire to reconcile behavioral economics with the mainstream tradition involving a rational spirit. Discussant Phelps noted that while Williamson learned from many of the economists cited, his work on contracting opened up a range of problems that those who influenced him didn't even conceive of. As with Simon's focus on altruism and organizational identification, Phelps attributed Williamson's focus on conflict to personal experiences. Among several suggestions offered was a request for indication of the kind of evidence that would distinguish between hypotheses from the respective theories of Simon and Williamson.

#### Health and Allied Disciplines

Kevin D. Frick, Johns Hopkins University, "Willingness to Pay for Lifetime Benefits with Credit Constraints." The paper considered several conceptualizations of a lifetime willingness to pay for health improvements that last a lifetime when consumers face constrained credit markets. The alternative concepts make an important difference in the measured willingness to pay (W to P) and in the relationship between the theoretically measured W to P and observable W to P measures. Governments using cost-benefit analysis in policy making must decide which conceptualization is most appropriate for collective decision making and must determine how to assess the W to P with observable data. Applications to Gambia. The discussant, Mark Freeland of the Health Care Financing Administration, noted Frick's efforts to explain the anomaly of a W to P less than the cost of illness, contradicting theoretical analyses. He maintained that the reasons for this derive from the impoverished condition of Gambia and are linked to behavioral economics and the interaction of micro and macro phenomena.

Vincent Maher, Iona College, "The More Things Change the More They Remain the Same: The Practice of Contemporary Anesthesia in the United States." Considers political as well as professional factors affecting the administration and supervision of anesthesia by nurses rather than doctors. Discussant Pamela Peele (University of

Pittsburgh) emphasized the role of insurance company concerns in keeping costs down in involving nurses.

Paul Albanese, Kent State University, “An Exploration of the Psychological Foundations of Consumer Behavior.” Uses psychoanalytic object relations theory to relate consumer behavior to the state of personality development. In reply to observations from Charlotte Phelps (Temple University) and Hugh Schwartz, Albanese maintained that he does not believe that normal people can behave inconsistently.

#### Environmental Considerations

Henrik Svedsater, London School of Economics, “Economic Valuation of the Environment: How Citizens Make Sense of Contingent Valuation Questions.” Employs an inquiry on the economic valuation of the environment—global warming—to focus on how people interpret questions of contingent valuation. Respondents referred to several factors that ought not to be relevant. Moreover, the majority expressed concern with the appropriateness of assessing economic value to environmental amenities. Discussant John Horowitz (University of Maryland) stressed the contribution being made by contingent valuation but insisted that for the technique to be successful, there is a need for good (precise) questions. He expressed his doubts about the appropriateness of cv for a multi-dimensional topic such as global warming.

Tobias Schulz, University of St. Gallen and University of California, San Diego, “‘Anomalous’ Risk Preference for Environmental Ballot Propositions: An Empirical Investigation for California and Switzerland.” An analysis of voting in the two jurisdictions on environmental regulation from 1970 to 2000 barely allows for a distinction between the Cumulated Prospect Theory of Tversky-Kahneman and other more straight-forward theories about risk acceptance. However, people do not seem to oppose a cutback in environmental regulation affecting low probability risks with the same intensity as they support stronger environmental regulation. The discussion dealt with the quantification of costs, and with whether the type of regulations in question are always unambiguously pro-environment.

Gary D. Lynne, University of Nebraska, “The Human Side of Soil and Water Conservation: Toward a Metaeconomic Policy.” Paper affirms that soil and water conservation policy needs to rest on the true nature of human beings rather than on the

presumption that 1) individuals always pursue only self-interest, or 2) that they always need to be controlled to pursue empathic interests. Builds on a metaeconomic model that recognizes basic brain biology and considers certain empirical findings to help assess the role behavioral economics and a metaeconomic approach might play in re-formulating soil and water conservation policy. Discussant John Horowitz contended that the paper did not deal sufficiently with the detail of the decisions involved in the major case studies involved.

Jason F. Shogren, University of Wyoming, “Micromotives in Global Environmental Policy.” Protecting ourselves cost-effectively from global environmental threats like climate change requires a good understanding of the behavioral underpinnings that drive choice under risk and uncertainty, lead to the design of efficient and effective protocol for cooperative action across nations, and create incentives for different control strategies within nations. Researchers can use experimental economic methods to gain insight into these micromotives of climate policy by testing the robustness of theoretical predictions and by recognizing new patterns of choice. The paper discusses how decision makers can try to get more environmental progress at less cost by accounting for the relevant determinants of behavior. Discussion of the paper included one query as to why neoclassical economics should not be an adequate guide to policy, and another concerned with the seeming dismissal of a seriously behavioral approach to policy guidance in the environmental field, given its increasing acceptance in the financial area. Shogren countered that a behavioral approach was likely to be relatively most effective only when demand side concerns predominated. Horowitz added that while behavioral economics was easy to accept in a descriptive sense, it was not yet clear how to deal with it in prescriptive terms.

Todd L. Cherry, Appalachian State University and Jason Shogren, “Rationality Crossovers.” This paper explores whether the power of arbitrage to induce more rational behavior in market and non-market settings extends to diverse decision making tasks over preferences for gambles. It examines how arbitrage in a preference reversal setting affects individual behavior for the Allais Paradox, the Ellsberg paradox, and the valuation of low probability food safety risks. A three-stage experiment is used to elicit choices and values over gambles, with and without the experience of arbitrage. In one setting arbitrage can

crossover to impact the choices in unrelated tasks, but rationality crossovers have their limits. The results hold with the use of cheap talk—hypothetical arbitrage—as a substitute for real arbitrage. The discussant, Cathleen Johnson (Social Science Demonstration Corporation) noted the role of the paper in getting people to behave in a less instinctive manner, but asked for a fuller description of the arbitrage procedure employed, more information about the experiment generally, and a clearer distinction between a rationality-spillover and a rationality-crossover. She also requested a discussion of the subjects who were rational from the outset.

Preference Formation/Marriage and the Family. This panel was the most intensively integrated in advance.

Charlotte Phelps, emerita, Temple University, with Nalini Ambady, Harvard University, “The Mother’s Voice: Predictor of Her Child’s Adult Economic Outcomes.” Purpose: to add to the evidence that parenting behaviors have long range effects on the economic behavior of mature offspring. The mother’s voice predicts need achievement, need affiliation, need intimacy and need power. Together with some demographic variables, they explain differences in education, earnings and family income. Paper presents and tests a model that a mother’s emotions have a measurable impact on the mature children’s motives and that the motives contribute to behaviors that are rewarded by earnings and family income. Uses 1) recordings of mother-interviews conducted by psychologists in 1952 when the mothers’ children were 5 years old, filtered to focus on the tone while making the words unintelligible, 2) Thematic Apperception Tests (stories written in response to picture cues) when the children were 31 and 41 years old, and 3) data on economic outcomes when the children were age 41. The effect of the anxiety dimension of the mothers’ voices when the children were age 5 was the most powerful predictor of earnings and family income at age 41, with low anxiety leading to greater economic success. Mothers who do not reveal great anxiety teach their children how to establish and maintain a warm family relationship. This interpersonal skill pays off with a higher family income, in considerable measure due to the more durable marriages it promotes.

David George, La Salle University, “Sexual Choices: The First Order’s Rise and the Second Order’s Fall,” (Chapter 7 in Preference Pollution: How Markets Create

Preferences We Dislike, University of Michigan Press, 2001). Free markets do not respond well to second order or metapreferences in the view of this presentation. The model treats the rankings of our regular preferences or utility functions as greatly influenced by social forces including marketing, whereas second order preferences are less malleable. Those who alter our preferences need not compensate us even if the preferences are changed for the worse, and the paper contends that the market often creates preferences that are worse than those they replace. The sexual preferences that people express receive the respect of the broader culture. While we have come to honor personal sexual preferences of the first order variety, we are less inclined to recognize the existence of sexual second order preferences. An example is seen in divorce laws which reduce the cost of leaving a marriage even though remaining married for life may be a second order preference. The discussion considered second order preferences as representing the role of conscience. The gist was that political and socio-economic factors influence society's preferences and that problems arise when individual preferences differ from those of society. Much of the discussion centered on parental values (family values) and the larger society's values, but also considered the consequences of shifts in second order preferences.

Simon Burgess, Carol Propper and Arnstein Aassve, University of Bristol, "The Role of Income in Marriage and Divorce Transitions among Young Americans." Paper investigates the importance of economic factors in young Americans' decisions to form and dissolve households. Employs a search theoretic framework to analyze the decisions to form and dissolve a first marriage or partnership. Using data on young American men and women from the NLSY, an important role is found for income in both transitions though with significant differences between the genders. High earnings capacity decreases the probability of marriage and increases the probability of divorce for young women, but has the opposite effect for young men. The discussion noted that the paper uses terms with emotional content to describe the results but asked whether the literature of psychology showed a relation between economic independence and the demonstration of self-reliance. Use of the locus of control variable was suggested, in part to explain the self-reliance effect. One discussant observed that the paper did not provide any sense that divorce can be painful, and beyond that, did not seem to constitute behavioral economics,

being essentially a primitive maximizer. It was speculated that the inclusion of interdependent utility functions on the part of the marriage partners (or the inclusion of “duty” in each agent’s utility function) might change the conclusions.

Steven Horowitz, St. Lawrence University and Peter Lewin, The University of Texas at Dallas, “Accounting for Changes in the Family—A Market Process Approach to Divorce.” The paper, reflecting the economics of the Austrian School, attempts to account for endogenous change, examining underlying social institutions and giving special attention to decision making in conditions of real world uncertainty. Allows for imperfect information, structural uncertainty and disequilibrium outcomes. The paper attempts to document and analyze the causes and consequences of changes in the family, particularly by focusing on the incidence of divorce. Attention to the relationship between marital dissolution and human capital investment. Observes that a perception of a decrease in the benefits of marriage (at the margin, in any event) leads to changes in the legal and cultural environment that reduce the cost of divorce, which further reduces the benefits of marriage and raises the probability of divorce. Concludes, however, that the current trend toward smaller families of shorter duration may not be stable in evolutionary terms. Charlotte Phelps raised the question of the effects of improvements in IT on the search process for a marriage partner and on the cost-benefit analysis of divorce. She also noted that Frank’s model of competition between altruistic and egoistic persons provides a possible solution to the market process that will lead to societal survival: trustworthy couples will signal to each other in the marriage market and invest in household-specific human capital. David George distinguished between household and market producers in that the former do care about the ultimate consumer’s metapreferences. He raised questions about the assumptions of narrow self-interest and asked how the integration of interdependent utility functions might alter the conclusions. In addition, he argued against the conclusion that a lower cost of divorce should increase the number of marriages (insofar as it alters the pre-commitment mechanism).

### Behavioral Finance

Tadeusz Tyszka and Pior Zielonka, Leon Kozminski Academy of Entrepreneurship and Management, “Expert Judgments: Financial Analysts vs. Weather Forecasters.” Two groups of experts were asked to predict events in their fields—

financial analysts, the value of the Stock Exchange Index, and weather forecasters, the average temperature for the next month. In considering inaccurate judgments, the latter attached much more importance to the probabilistic nature of the events predicted than did the financial analysts. Both groups revealed an overconfidence effect but this was significantly higher in the financial group. The results are discussed in terms of strategies used by experts to defend their self-esteem, which if strong enough, can prevent experts from learning from experience. The discussant, Tomasz Zaleskiewicz (Wroclaw University of Technology), observed that those dealing in financial markets, who are called financial analysts, did not follow an analytical way of thinking.

Mary M. Bange, University of South Carolina and Thomas W. Miller, Jr., University of Missouri, “Momentum Trading and the Internationally ‘Perfect Portfolio.’” “The paper contains the first empirical tests concerning the international strategies of a panel of investment issues. The previously untapped data for the study comes from surveys published in the Financial Report, a confidential newsletter. Evidence is found that, as a group, investment houses do not adjust their asset allocations across equity, bonds, and cash in response to recent returns in these broad asset classes. However, some evidence was found that the investment houses do change their country-specific equity weights in response to relative return rankings across countries. This finding is consistent with the notion that investment houses do engage in momentum trading with respect to equity allocations across countries. Evidence is also found that varied investment styles and strategies do not offset one another for all equity recommendations across countries. The discussant, Victor Ricciardi (Golden Gate University), raised a number of technical issues, and suggested a discussion of the issue of the profitability of momentum trading. He also inquired whether the author had applied the results of her research to her own investments (somewhat, with mixed results, she replied).

Victor Ricciardi, “The Role of Group Decision Making in Behavioral Finance: With an Emphasis on the Group Polarization Phenomenon and Groupthink Theory.” The paper, a preliminary version of a forthcoming doctoral dissertation, provides a discussion of the significance of the decision making process of investors with emphasis on the role of group behavior. The paper begins with a consideration of how behavioral finance investors cope with financial information and the influence of heuristics. A

presentation of three themes of behavioral finance follows: herd behavior, speculative behavior and overconfidence. Then a discussion of group behavior from the social sciences, focusing on group polarization and “groupthink,” each with an overview and initial literature review. Discussant Tadeusz Tyszka urged the author to devote attention to testing the way in which the psychological phenomena considered work in financial markets, and to whether they function differently in different domains.

Tomasz Zaleskiewicz and Jacek Radomski, Wroclaw University of Technology, “Investors’ Risk Attitudes and Their Behavior in the Stock Market.” The research sought to determine whether individual investors who differ in their risk attitudes also 1) make different use of financial information, 2) differ in their forecasts of future indexes, and 3) differ in their affective experiences when making investment decisions. The subjects were 34 experienced Polish investors. Risk attitudes were measured in two ways. First, investors were asked to choose a portfolio which best reflected their preferences. Second, they were asked to complete an inventory with the goal of determining financial risk attitudes. Analysis of both risk measures resulted in two factors representing various attitudes to risk—long term risk preference and short term risk preference. The results showed that differences in the willingness to take the two kinds of risk are associated with differences in the information usage, differences in affective reactions and differences in index forecasts. The discussant, Mary Bange, suggested that the author buttress the findings by appeal to some theory and illustrated how that might be done with respect to the Shefrin/Statman behavioral portfolio theory. She also called for more explanation of financial markets in Poland, more information on the background of the investors and better definition of some terms.

### Growth and Development I

Richard Ball, Haverford College, “Incomes, Inequality, and Happiness.” A follow-up to a 1974 seminal paper by Easterlin on happiness and income levels, based on the recently constructed data set, the World Values Survey. Findings: 1) average income is positively associated with average happiness across countries, a robust finding controlling for inequality, growth, contraction or expansion, or location in Eastern Europe; 2) the association of income inequality with average happiness across countries appears to be ephemeral, with the distinction between whether a country’s economy has

expanded or contracted tending to be what really matters; 3) no evidence uncovered that average happiness increases with equality. Discussant Louis Lévy-Garboua (University of Paris 1) urged more attention to the reasons Easterlin stated that relative income matters. These may be reflected in differences across countries. How do the data differ from the earlier set? Does the study regress happiness on income alone or on reference income as well?

Luis G. Bernardes, Portuguese Catholic University, “Reference-Dependent Preferences and the Speed of Economic Liberalization.” Mussa’s benchmark study on the ideal speed of economic liberalization concludes that if the private costs of adjustment reflect the true social costs and agents correctly anticipate future expected returns, shock therapy maximizes growth even when mobility costs justify a gradual adjustment of resources. This paper re-examines Musa’s liberalization problem, assuming reference-dependence in individuals’ preferences. When liberalization entails a large enough loss to workers in the losing sectors, a gradual approach is likely to maximize growth. Individuals’ diminishing sensitivity to outcomes as these depart from their reference level is the main reason. An empirical interpretation of this result based on Eastern Europe’s economic transition is provided and it is argued that the evidence is consistent with the implications of the reference-dependent model. Discussant Luis Lévy-Garboua first questioned why government is reference-free but individuals are not, particularly since the paper states (at the end) that government tends behave like individuals. Second, he questioned the lack of explanation of the reference level and the adjustment process. Third, he raised the possibility of hyperbolic preferences to deal with the complications in the model. Finally, he observed that if too many psychological theories are introduced the model becomes so complicated that it’s impossible to have unambiguous conclusions.

Timothy N. Cason, Purdue University and Vai-Lam Mui, University of Notre Dame, “Does Individual-Specific Uncertainty Lead to Resistance to Reform? Evidence from Laboratory Participation Games.” Fernandez and Rodrik (1991) show that the presence of *individual-specific uncertainty* regarding the distribution of gains and losses from reforms can prevent the adoption of efficiency-enhancing reforms. In their model, a minority of voters know for certain that they will gain from the reform, while a majority of voters do not know whether or not the reform will benefit them. Fernandez and Rodrik

assume that voting is costless, and they do not analyze the strategic interaction between voters. Drawing from the literature on participation games in political economy (e.g., Palfrey and Rosenthal, 1983), a game-theoretic reformulation of the original Fernandez-Roth model is developed with costly voting, so that the probability of reform adoption depends on the *actual turnout* of the different types of voters. The model typically has multiple equilibria, and the presence of individual-specific uncertainty does not necessarily lead to resistance to reform. The paper also shows how changes in the cost of voting and the presence or absence of individual-specific uncertainty affect the incidence of reform and voter turnout. The implications of the model are tested in a laboratory experiment that varies the voting cost and voter uncertainty. Consistent with the qualitative predictions for one type of equilibrium, individual-specific uncertainty reduces the likelihood of reform. Voting costs affect turnout and voting outcomes in a way that is consistent with this participation game model, at least for the set of voters in the majority. Discussant Jason Shogren (University of Wyoming) observed that if one has a risky input, less of it is used, and voting is a risky input. As the cost of voting increases, less of it is used. His principal comment was that the paper lacks a notion of beliefs which explain what others will do--and which might explain why people do not necessarily do what one might expect them to do.

Carl P. Kaiser, Washington and Lee University, "Culture and Welfare State Institutions." That no two welfare states are alike is not an issue, but the question of why they differ so much continues to be an important one. This paper concentrates on the linkage between culture and the structure of a number of the key social policy programs that exist in most countries. Are the incentives created by sickness absence, unemployment and pension policies systematically related to differences in culture? This study seeks to generate statistical evidence that highly individualistic cultures create social policies that entail stringent eligibility requirements and relatively low benefit levels, while cultures that value modesty, altruism and quality of life create social policies that offer generous benefits that are made available as a right of citizenship. With the triumph of capitalism as the dominant form of economic organism, and the contemporary struggles of many countries in the midst of transition, it is more urgent than ever to understand how different brands of capitalism come about and why they

differ markedly in the level of welfare enjoyed by their citizens. The discussant, Tobias Schulz contended that the presentation abstracted from public choice approaches that might explain how different countries behave when they have different political systems and that might raise some complementary hypotheses. Different interest groups might be able to influence the outcome. Was a neo-corporatist variable considered? The study should explain how the cultural variables are measured.

### Human Resources and Sociodynamics

Kevin Sontheimer, “Behavioral Economics, Stakeholder Theory and Policy.” This paper seeks to accomplish two tasks. *The first is to define characteristics of policy prescriptions built on the foundation of behavioral economic theory.* This provides defining characteristics that distinguish *behavioral economic policy* from policy built on the foundations of neoclassical economic theory. The second task is to consider the concept of stake holding and its application to the theory of the firm, and in particular to the issue of management and control. The second task is basically a test of the proposed policy concept. In addressing the second task, the paper looks at basic issues of policy design and process to ascertain from the purely policy perspective whether the extension of control to non-owner but interested parties will be efficacious or not. It is concluded that that the extension of control to non-owner stakeholders is typically not efficacious. A more practical approach to safeguarding and advancing non-owner interests is via more standard policy instruments such as regulation, taxes, subsidies and enforced compensation. The discussant, Douglas McCabe (Georgetown University), strongly endorsed the presentation and emphasized that control is the key issue.

Douglas McCabe, “Market Adjusted Options for Executive Compensation: An Analysis of Shareholder Resolutions.” Paper deals with ways of linking executive compensation with financial, environmental and social performance, and with the relative compensation of executives and employees. Attempts to separate the gains in a stock’s performance due to overall market effects vs. financial performance of firm. Discusses recent compensation innovations that circumvent attempts to link pay to performance. Discussant Kevin Sontheimer asked how to deal with 1) the latent underground oil issue; 2) the issue of returns to patents that become valuable because of external factors; and 3)

other windfalls. He concluded that individual corporations may not have sufficient incentives to cope with the issue of executive compensation so may require public policy.

Klaus Jaffe, Simon Bolivar University, “Sociodynamics: Case Study: The Economy of Altruism.” Sociodynamics is the science that aims to provide the bases for a deeper understanding of the interacting web of biological, social and economic behavior. It employs chaos theory, entropy and tools from chemistry, and evolutionary theory from biology in an effort to reduce complex systems to simple parts. Sociodynamics aspires to be a quantitative experimental interdisciplinary science aimed at studying social phenomena, bridging the gap between the mind of a natural scientist and a social one. The paper uses a simulation model, an agent-based stochastic model built on individuals, each with their own *unwelt*--interacting to form a social or cultural *gestalt*, this in order to explore the constraints to altruism. The study concludes that altruistic behavior is not a stable strategy in a pure economic environment, but that only if synergistic mutualistic interaction or secondary benefits are present are there higher benefits to groups that display altruism. The discussant, Dan Maxwell (Mitre Corporation), an information technology specialist who has been working in multidisciplinary areas and with multi-attribute utility theory, welcomed the contribution. Integrating his remarks with the two previous papers, he observed that it was important to take account of the multiplicity of stakeholders inasmuch as different stakeholders have different perspectives.

#### Recent Books by Conference Participants

John Tomer, The Human Firm: A Socio-Economic Analysis of its Behavior and Potential in a New Economic Age (Routledge, 1999). The theme is that the firm is not strictly rational and machine-like, but flexible and fallible. It involves not only hard aspects of reality, but soft aspects as well, responding to macro and microeconomic social forces. The soft aspects include spirit, leadership, organizational learning capability reflecting the investment of organizational capital, and the potential of strong management. All this has implications for government policy towards the firm broader than that implied by the usual concept of industrial policy.

Morris Altman, University of Saskatchewan, Worker Satisfaction and Economic Performance: Microfoundations of Economic Success and Failure (M. E. Sharpe, 2001). This work challenges fundamental tenets of “free market” economics, including the

beliefs that high wages invariably mean low profits, that a “free” market will automatically reduce discrimination and pay inequality, that anti-trust legislation hinders competitive market forces, that culture does not matter, and that minimum wage laws and trade unions negatively impact the economy. Using both theoretical analysis and real-life examples, the book argues that these myths are products of unrealistic behavioral assumptions about the typical worker and the notion of economic efficiency as an economic imperative. It focuses on the concept of “human agency” to show how the level of workers’ satisfaction with their jobs—as a reflection of how well they are paid and treated by their employers—has a direct impact on the quality and quantity of what they produce and inevitably, on the performance of the firm. Builds on work of Leibenstein. The book offers a more realistic microfoundation for public policy.

Hugh Schwartz, Implementing Development Visions: The Extraordinary Urban Renewal of Curitiba, Brazil (tentatively, University of Arizona Press). Describes one of the world’s most successful urban renewal experiences during the last generation. This metropolitan area of nearly 3 million came back from major adversity to experience a rise in per capita income from somewhat below the national average to 65 per cent above it in part due to an industrialization featuring a vast, green industrial park. Curitiba’s public transportation has become a model for medium size cities. Amenity improvements include the rejuvenation of downtown to make it pedestrian friendly and a focal point for gatherings after normal business hours and on weekends, the transformation of urban eyesores into sites of spectacular beauty, a flood control/twenty fold increase in park space even while the population was tripling, attention to environmental concerns, and the improvement of a safety net for lower income residents. While credit often has been given to an urban “master plan,” the achievements seem to have resulted primarily from the visions of the architects and urban planners who have dominated city politics, and attention to implementation, which has involved incrementalism and the use of judgmental heuristics rather than an effort at optimization.

Hariolf Grupp and Shlomo Maital, Managing New Product Development and Innovation: A Microeconomic Toolbox (Edward Elgar, 2001). **This book culminates a decade of joint research on new product development, funded by the German-Israel Foundation; Grupp is Professor at the University of Karlsruhe and acting head of**

**Fraunhofer-ISI, part of the Fraunhofer chain of R&D labs and technology research. The objective of the book is to improve success rates for new product ideas in high technology -- only one in a hundred attain commercial success. A major cause of failure is often the inability to reconcile the chaotic creativity needed for ideation and the disciplined process required for successfully implementing ideas. Among startups, chaos is often never joined by discipline. Among large firms, discipline often extinguishes creativity and innovation.**

**The book assembles a set of microeconomic tools, building on basic risk-return and cost-benefit ideas. The core tool is known as 'feature based innovation' -- disassembling each radically new product, or product improvement, into a set of attributes, that can be quantified, benchmarked against market leaders, and graphed. Optimal innovation involves matching technology -- objective product performance -- with psychology -- perceived importance of product characteristics. The 'language' of product features can help R&D engineers communicate well with production, sales and marketing managers.**

#### Theory Panel I

Louis Lévy Garboua and Benoit Rapoport, University of Paris 1, “A Theory of Social Norms, Fairness and Competition.” In experiments such as the ultimatum game, the standard self-interest model does not fit the observations. The vast majority of players behave fairly, although the model predicts noncooperative behavior. In other cases, such as a market game with proposer competition, the standard model accurately fits the experimental outcomes: subjects behave very unfairly, but only after several iterations. The paper presents a single model that can account for these widely different behaviors. It is often the case that players come to the game with common priors (behavioral rules), which are referred to as social norms (social contract) because they are held under a veil of ignorance. For example, all risk-averse subjects would wish to share a cake equally, if possible. However, partners may have several priors (behavioral dispositions), such as being either risk-lovers or risk averse, and the paper shows how such heterogeneity affects their behavior. Once the game has begun the agent receives new information. He knows, for instance, his own position or that he can be almost sure to win in certain situations. Then he can revise his prior preference before he actually makes a move. The

model is interested in decisional or cognitive processes. New terms such as an aversion to inequity or altruism are not introduced into the utility function. Rather, the paper attempts to account for the importance of information and information timing. This theory of social norms can explain the facts observed in the ultimatum game and in the market game with proposer competition. The existence of a majority of risk-averse players and a minority of risk-lovers can account for the distribution of offers in the ultimatum game. The study explains why the experimental results differ when information is perfect and when it is asymmetric, and why behavior differs along with the way of attribution of positions. It shows, moreover, that information timing, together with the heterogeneity of agents, are especially important to the market game.

The discussant, Roger McCain (Drexel University) found the paper most thought provoking but contended that the discussion of Bayesian revision of probabilities is inconsistent in the framework presented and inconsistent generally in game theory unless the theorist introduces some probabilistic uncertainties into the model because game theory models do not have any native probabilistic uncertainties. Yet such an introduction is the approach the authors are trying to get away from. They reject the ad-hockery of Fehr but find themselves obliged to adopt some of the same in assuming that some agents will act on the basis of social contract even though it is against their interest to do so. This may be a promising line of thought because while reciprocity seems to account for much of the phenomena we observe, there has to be some base line for judging whether one has been favored or disfavored, and scholars differ on the base line with equality or an implicit social contract as perhaps the one most commonly agreed to. It might be used in that manner rather than as an alternative to different types of players.

Louis Lévy-Garboua and Claude Montmarquette, University of Montreal, “Satisfaction, Judgments and Utility Analysis.” The paper shows that satisfaction judgments and feelings cannot be identified with experienced utility under the assumption of rational behavior and the economic interpretation of utility as a preference index. Instead, they should be taken as an expression of experienced preference over available alternatives, which often remain implicit, conditional on acquired knowledge of the past. This new interpretation of satisfaction judgments and feelings restores the power of microeconomic theory without denying the essential role of discrepancies between

one's situation and available opportunities. Experienced human wealth gaps entirely predict reported job satisfaction, after controlling for job-related non pecuniary satisfactions. The "experienced preference" model readily explains why so many persons usually report themselves as happy or satisfied, why older age groups are rather insensitive to current wage gaps, and why the past weighs more heavily than the present and the future. Discussant McCain found the approach promising but noted that Kahneman recently contended that differences in experienced utility and decision utility were due to imperfect memory—which contradicts the assumption of this paper that the past is known with certainty.

Stéphane Rinaudo, University of Paris 1, "Portfolio Choice and Cognitive Consistency." According to Expected Utility theory applied to portfolio choices, all agents hold the market portfolio, and the share of risk in an individual portfolio depend only on his risk aversion. But all agents do not hold the market portfolio. They often have a degree of risk in their portfolio less than their risk aversion would lead one to expect. It is maintained that the theory of cognitive consistency enables us to overcome the descriptive inadequacy of standard theory. Cognitive consistency theory also takes into account the learning of a risky situation by individuals, and the possibility that they may reach the optimum prescribed by normative Expected Utility theory with relatively short delays. (The theory of Cognitive Consistency, expounded by Lévy-Garboua in 1999, describes the decision process of individuals for whom the standard EU criterion constitutes a decision norm, but who may deviate from this norm because their cognitive limitations lead to a distortion of perceived probabilities both of the events to which they are linked, and the past experience of these individuals in the same risky situation.) The discussant, Mark De Weaver (Ithaca Advisors), questioned whether it is possible to describe an investor's experience endowment with a single scalar (maintaining that experience endowments are multidimensional products of the particular experiences that make them up). Second, he maintained that since the model's two risky assets are exogenous it cannot address the changes in asset prices that would be predicted in a general equilibrium framework such as would be employed by conventional portfolio theory. Finally, noting the effect of unconscious learning in leading to rapid convergence to the EU optimum, De Weaver contended that the result seemed to cast doubt on the

usefulness of the theory in explaining why empirically observed portfolios do not include a larger share of risky assets.

### Labor and Macro

Arthur H. Goldsmith, Washington and Lee University, Stanley Sedo, University of Michigan and William Darity, Jr., University of North Carolina, “Discrimination During Job Search, Cognitive Dissonance and Labor Supply: The Interaction of Psychological and Economic Balance.” Researchers have found that African Americans and females supply less labor than comparable whites and females. One possible explanation is that both groups may have confronted discrimination during job search that damages their desire to supply labor. The paper offers a theory of how a person’s perception that they face discrimination during job search influences labor supply, to identify the conditions under which discrimination during job hunting can reduce labor supply. The study then specifies and estimates reduced form models of labor supply to provide evidence on the relation between a person’s belief that they have been exposed to discrimination while job hunting and their subsequent labor supply. The theory combines insights from neoclassical economics and from Festinger’s theory of cognitive dissonance. Persons who believe they are being discriminated against while searching for work may be thrown into an unbalanced psychological state and this can affect labor supply by altering a person’s tastes for leisure and by reducing the wage they expect to earn if employed. However, the empirical results suggest that the relatively low labor supply of African Americans and females is not due to their holding a judgment that they faced discrimination during the job search process. The discussant, Morris Altman, stated that the paper introduces a variable that should be tested for, but principally, he emphasized that more should be stated about the implication that cognitive dissonance does not seem to be a major part of the explanation for the reduced labor force participation. He wondered if economic agents reduce cognitive dissonance by reducing labor effort per unit of input, and also asked if discrimination really exists or if it is only psychological. Other participants also raised questions about the existence of discrimination and what the effects of such a phenomenon might be.

Morris Altman, “Involuntary Unemployment, Macroeconomic Policy, and a Behavioral Model of the Firm.” The implications for macroeconomic policy of

introducing effort variability into the production function are examined. In the framework of a behavioral model, wherein there exists some linearity in the relationship between real wages and working conditions and labor productivity, a lower real wage rate is not a necessary condition for reducing the unemployment rate nor is a higher real wage rate an obstacle to reducing it. In this case, improving labor productivity in the context of effective demand side management might be a more effective and efficient method of reducing unemployment rates as opposed to efforts to make labor markets more flexible and to reduce real wages and other real benefits to workers. The discussant, Carl Kaiser, suggested that worker motivation should be taken into account (and the business cycle as a factor influencing worker motivation). He mentioned that the paper might be strengthened by also taking account of the management (organizational) literature on worker effort. Barbara Bergmann (American University and University of Maryland emerita) added that the behavior of the unemployed receiving insurance might be considered.

Mark Pingle, University of Nevada at Reno and Leigh Tesfatsion, Iowa State University, “Non-Employment Benefits and the Evolution of Worker-Employer Cooperation: Experiments with Real and Computational Agents.” Experiments with real and computational agents are used to examine the impact of changing the level of a *non-employment payoff* on the evolution of cooperation between workers and employers participating in a sequential employment game with incomplete contracts. Workers either direct work offers to preferred employers or choose unemployment and receive the non-employment payoff. Subject to capacity limitations, employers either accept work offers from preferred workers or remain vacant and receive the non-employment payoff. Matched workers and employers participate in an employment relationship modeled as a prisoner’s dilemma game. In both types of experiments, increases in the non-employment payoff result in higher unemployment and vacancy rates while at the same time encouraging higher rates of cooperation among the workers and employers who do form matches. However, the behaviors exhibited by the computational agents are coordinated to a higher degree than the behaviors of the human subjects. This difference raises challenging questions for both human-subject and computational experimentalists. Discussant Katherine Willey Wolfe (University of Pittsburgh) noted that a possible

problem in comparing the results rests in the fact that the human participants got 12 periods and the computational, 100. (What happened in the first 12 periods of the computational games?) With respect to policy prescription advice, she asked where it might be best to put the unemployment benefits.

Catherine Eckel, Virginia Polytechnic Institute and State University, Cathleen Johnson, Social Research and Demonstration Corporation, and Claude Montmarquette, University of Montreal and CIRANO, “Investing in Human Capital: A Laboratory Experiment with the Working Poor.” The study asks, 1) Will the working poor invest in various assets, and, in particular, in human capital for themselves--and for their children? 2) Are the working poor willing to delay consumption for substantial returns? 3) How do the subjects view risky choices? 4) Is hyperbolic discounting involved? Laboratory experiment aimed at providing evidence to assist design of large field experiment. Use of outcome-based measures, attitudinal surveys, and controlled laboratory experiments. Preliminary results: few inconsistent choices between cash and investment in assets; significant differences by sex, worker/student status; the rate of return very important but people would save more if they could withdraw periodically. The discussant, Jason Shogren (University of Wyoming) asked for a more extended discussion of risk, time preference and wealth to clarify theoretical and behavioral underpinnings. Also, of tastes and technology, given the skills required to handle the technology given. Desirable to indicate the kind of networking community so that the question of trust can be taken into account. Also would be useful to understand the base line: do the participants consider it worthwhile to go from \$400 to \$600 if they receive only 10% more?

Does Globalization Have a Dark Side? If So, Can Behavioral Economics Help Improve Our Understanding of the Phenomenon and Contribute to the Alleviation of Any Attendant Problems?

John Williamson of the International Institute of Economics took the position that Globalization has been favorable on balance, and Simón Teitel, formerly of the Inter-American Development Bank, Georgetown University and the World Bank, took a more skeptical view with his presentation, “Globalization and Its Discontents: Good, Bad, or in the Eye of the Beholder?” These presentations were followed by questions and comments

from conference participants in an effort to suggest what a behavioral approach can do to help understand the phenomenon and alleviate the problems.

John Williamson outlined what has been entailed in globalization, emphasizing the integration of markets, and noting that that integration has been seen least in labor markets, particularly the markets for unskilled labor. He referred also to the realm of ideas, in which the Washington Consensus of 1989 became the manifesto of neo-liberal reform for all times and in all places. Williamson cited technology and policy as the underlying explanations of globalization. He maintained that it had been good for income distribution on a global basis, though less so within countries, where he advocated implementation of economists' compensation principle. He noted the contribution of portfolio investment flows but also the crises that they had created and indicated his support for Chilean-type controls. In sum, he characterized globalization as the force that has spread the acceleration of development throughout the world. As for any "dark side," he pointed only to the spread of invasive species such as the West Nile virus, and perhaps the homogenization of products.

Simón Teitel stated that until recently he would have subscribed to much of the Williamson thesis. He referred to globalization as not only trade, but the internationalization of production and underscored the drastic change in factor flows. He added that the phenomenon has been characterized by increased access to information, but also to limitations to national sovereignty. Teitel questioned some of the effects of increased foreign investment and noted that 90% of the capital flows had been among the industrially advanced countries, and 90% of the flows to developing countries to only a group of ten of them. Concerns were expressed about policies such as those on exchange rates and certain protectionist policies of the advanced countries. He underscored concerns about workers, including those in the advanced countries. In closing, he characterized globalization as a complex phenomenon, with cultural and political as well as economic dimensions, but contended that even with respect to economic consequences, economists need to do a better job in explaining all that is involved. Teitel added that the key to avoiding negative effects lies with adjustment policies such as transfer payments, subsidies for retraining and compensation arrangements.

The moderator, Hugh Schwartz, maintained that consideration of globalization should begin by noting that most investment has come from domestic not foreign sources so that a key issue is what can be said about domestic resource mobilization—financial resources, property rights and other measures that affect both domestic and foreign investment. Morris Altman insisted that differences in institutions accounted for much of the difference in the differential effects of globalization in certain countries. Kevin Sontheimer stated that evaluations of globalization needed to take account of environmental conditions, corruption, and the development of human resources that might mitigate adverse effects of globalization. Roger McCain spoke of the volatility of capital markets—where behavioral economics could make a contribution. He also noted that the protests, as in Seattle, were not so much against trade as against corporate control. Arthur Grey referred to globalization as a disciplinary force on corruption but noted that trade creates more opportunities for corruption. Ian McDonald (Melbourne University) noted that the demonstrations were not against globalization but the globalizers. He also insisted that an evaluation of globalization required consideration of changes taking place in cultural values. Gary Lynne echoed that, mentioning clashes between European and US value systems. Vai-Lam Mui stressed the need to study compensation policy. Shlomo Maital pointed to the example of Finland as a society in which globalization has advanced greatly but without significant inequality, indeed, in the context of a welfare state. In his closing statement, Williamson insisted that globalization does not necessarily involve laissez faire. He added that if the protests were really against corporations, why were the voices raised against organizations such as the WTO that were established to deal with some of the problems that corporations might create? He noted that although he had not spoken of domestic resource mobilization in this presentation, he had participated in a panel that had dealt with that. Teitel, in closing, spoke of the volatility of capital and the crowd psychology undoubtedly involved. He added that the reason that protestors take on corporations, the WTO and the World Bank all together is because, given imperfect knowledge, they are all seen as images of the same phenomenon.

## Marriage and the Family II

Shoshana Grossbard-Shechtman, San Diego State University and Xuanning Fu, Brigham Young University-Hawaii, “Women’s Labor Force Participation and Status Exchange in Intermarriage: An Empirical Study in Hawaii.” The paper derives from rational choice models and tests predictions that follow from a marriage market analysis regarding compensating differentials in marriage and women’s labor force participation. Women from higher ethnic groups who marry outside their groups are less likely to participate in the labor force than women from the same group who marry those within the group. This is seen in examination of data from four racial groups; Hawaiian women were found to be less likely to participate in the labor force if they married outside their ethnic group. Tradition-bound women from ethnic groups with higher status who marry tradition-bound men seem to translate their group’s relative market value into a stay-home lifestyle. It was also found that the negative effect of outmarriage on a Caucasian women’s labor force participation was weakened with each year of her education and work is continuing on the effect of years of schooling on labor force participation. One limitation of the study is the lack of direct measurement of income and wages. The discussant, Barbara Bergmann commented that interracial marriage is a possible way to reduce the seemingly intractable racial problems that many societies face, and urged that the authors extend their research beyond the wife’s labor force participation.

Arnstein Aassve, Max Planck Institute for Demographic Research, Simon Burgess, University of Bristol, Andrew Cheser, University College London, and Carol Propper, University of Bristol, “Transition of Home to Marriage of Young Americans.” The paper examines the impact of income on the transitions between home, independent living and first marriage of young Americans. A matching model similar to that used in theories of job search is outlined to explain the probability of marriage and living alone. A multiple state, multiple transition model which allows for correlated heterogeneity on the first and subsequent transitions, is estimated. The results show that income has a strong and significant effect. The impact of unobserved heterogeneity is examined in detail. The impact of the young person’s earnings on the transitions is explored throughout simulation. Discussant Bergmann suggested that the work already done by the authors puts them in a position to estimate how much of the difference by race in cohabitation and marriage can be attributed to differences in the income of the subjects

and that of their parents. She suggested that the authors run simulations with assumed values of the parental income equal to those in white families to predict when black subjects would leave their parental homes to establish their own households. This would help separate cultural from economic factors.

Gaëlle Le Guirriec, Reims Management School, “Modeling the Household Decision-Making Process: Collectivist approaches vs. individual arrangements.” Several models were drawn on in order to examine the allocation of resources and distribution of goods in a marriage according to the identity and number of decision makers, the nature of the relationships between household members, and the existence of opportunities of cooperation. These include the model of complete love (which assumes the existence of a consensus among spouses or between parents and their children) or of kindly love (altruism of an individual toward others), the representation of the authority of each spouse in particular decision spheres (implicit contract), and the model of quarrels and permanent blackmail. All these approaches consider the family as endogenous but fail to explain the complex nature of intra-domestic relationships which lead, at the same time, to the implementation of a particular technology of production based on the earnings of the productive differences of the partners and the negotiations among them. On the other hand, in general, concepts of market process and of entrepreneurship are not specified. The article seeks to show the superiority of market representations of the household and the analogy the family and the firm in an Austrian perspective with respect to 1) the allocation of times and tasks (who does what in the household), 2) the production of marital/collective and private goods (what to produce), and 3) the distribution of consumption and well-being within the household (which transfers have to be undertaken in order to stir the spouses to cooperate in the well-being of others). Discussant Bergmann concluded that the article is very much in the tradition of orthodox economics—to sit and think of how people might operate instead of observing, asking questions, and conducting interviews to try to tease out how they actually do operate and what is in their mind when they do. She added that she does not believe that we will know which theoretical approach is best until we have a greater body of empirical work on how families actually make decisions, and referred to the example of Truman Bewley,

who asks decision makers questions about wages instead of putting forth a theory of wage setting based on contemplation.

John M. Fitzgerald, Bowdoin College and Davod C. Ribar, The George Washington University, “The Impact of Welfare Waivers on Female Headship Decisions.” While much of the focus of recent welfare reforms has been on moving recipients from welfare to work, many reforms were also directed at affecting decisions about living arrangements, pregnancy, marriage and cohabitation. This paper focuses on women’s decisions to become or remain unmarried mothers, that is, female heads of families. The impact of welfare reform waivers on those decisions is assessed, while controlling for confounding local economic and social contextual conditions. The 1990, 1992 and 1993 panels of the Survey of Income and Program Participation are pooled, spanning the calendar time when many states began adopting welfare waivers. For its descriptions of local labor market conditions the project uses skill-specific measures of wages and employment opportunities for counties. Models for levels of female headship and proportional hazard models for entry and exit from female headship are estimated. The use of state fixed effects or state stratified hazard models that control for unmeasured state influences are investigated. No clear evidence was found that welfare waivers reduced the growth of female headship in the 1990s. Discussant Bergmann ventured that this paper most nearly came to grips with pressing practical problems. She observed that some of the effects of the welfare reforms can be evaluated only after a longer period than that covered by the data so that the authors still have work to do.

### Second Plenary Session

Peter Dougherty, Princeton University Press, “Who’s Afraid of Adam Smith?” This talk and the book on which it is based deals with economics as seen from the perspective of an editor of numerous texts in field. It reflects institutions as well as markets. Before writing The Wealth of Nations, Smith first wrote of moral concerns and of the welfare of society. There was a civilizing side of Adam Smith, recaptured in part in the early 1990s, that dealt with small scale organizations, civic institutions, social capital, trust and democratic governance. The Theory of Moral Sentiments stressed the connection between the building of trust, institutions and wealth. Economists finally

seem to be following up on the civilizing side of Adam Smith, according to Dougherty. This can be seen in the growing emphasis on the economics of networks (a component of the new development economics), the public economics of large scale civic initiatives, the financial economics of expanded asset and property ownership, and urban economics to help restore civilizing economics. All are fields for which there is a need for major new contributions. When asked if economists have lost their capacity to communicate because the discipline has become overly technical, Dougherty drew back somewhat, however, and said that in part the technical component reflected economists' concern that they not be misunderstood.

Barbara Bergmann, "Child Care." Professor Bergmann expressed the hope that behavioral economics will produce a richer description of the world but maintained that there was a need for something more as well—concern with quality, income distribution, minimum standards, rights, and a need to take account of institutional peculiarities. And a need to know how to get there from here.

While much of the description of child care policy has emphasized negative factors affecting children who have not been in the care of their mothers, she insisted that non-maternal care was likely to remain common. There are conflicting interests, children's interests vs. adult interests. Much has been said of the contribution of better child care to cognitive abilities, worker skills, even a higher GNP, but less about whether children with better care are happier. There are equality issues including complex gender equality issues.

Professor Bergmann reviewed what she characterized as right wing, centrist and left wing approaches to child care, proposing a variant of the last: government provision of menus of public services that would include child care. She considered several alternative schemes and offered estimates of their cost and impact. Her conclusion: there is no minimum wage or redistribution of income that would help many lower income families, and thus there is a need to provide government services that would put money into the budgets of lower income families and raise their standard of living.

Shoshana Grossbard-Shechtman contended that what Professor Bergmann proposed, reintroduced much of welfare programs that had, for good reasons, been reduced, and suggested that perhaps any government program should encourage

marriage. Professor Bergman replied that marriage was declining for a number of reasons—that there will be an increasing number of unwed mothers and we should concern ourselves first with help for those who are born. Charlotte Phelps raised questions about the funding of the programs and the need to avoid undesired excesses among the recipients.

### Economic Theory II

Katherine Willey Wolfe, University of Pittsburg, “Does Reciprocity Trump Inequality Aversion?” The paper uses an experiment to examine two popular methods for including concern for fairness in the utility function: inequality aversion and reciprocity. In the first phase of the experiment subjects face a series of allocation decision problems which allows estimation of each subject’s inequality aversion parameters. There is considerable heterogeneity across subjects, and almost all subjects show remarkable consistency on all inequality aversion measures. In the second phase of the experiment, subjects play a two-stage cardinal ultimatum game, in which an allocation decision problem from the first phase is nested. For a significant number of subjects, the reciprocal aspects of this second game outweigh the inequality aversion aspects of the original decision problem, and they reverse choice. The discussant, Mark Pingle made a number of technical comments to the author. He noted that a change of context led to changes in the results, as in much experimental economics.

Nathan Berg and Donald Lien, The University of Kansas, “Welfare-Improving Overconfidence: An Analysis of Futures Market Equilibria with Heterogeneous Beliefs.” Speculators, hedgers and a market maker trade futures contracts based upon divergent beliefs. Overconfidence refers to unfounded inferences about the future based on the information currently available. Overconfident agents believe that speculators’ demand for futures contracts contains more information about underlying fundamentals than it actually does. In a speculator, overconfidence is interpreted as an inflated opinion of trading skill based on insider information. In a hedger, overconfidence means that too much is inferred from observation of stochastic phenomena which everyone in the economy can see. Surprisingly, the welfare implications of overconfidence are not unambiguously bad, since overconfident traders improve market liquidity by overtrading, thereby flattening the price schedule and creating scope for welfare improvements. Based

on numerical investigation, several broad, qualitative results obtain. Overconfident hedgers objectively improve welfare for everyone as long as they are not too risk averse and there are not too many of them. Economies populated by people with incorrect beliefs sometimes do better. With respect to the financial regulation recommendation of transparency, note that if this leads to more agreement, there may be less trading. Discussion: countries establishing securities markets need a large enough mixture of expectations to assure that trade occurs. [Note: Recall Fisher Black, “Noise Trade Risk in Financial Markets (1986)"]

Jonathan E. Alevy, “Ambiguity in Individual Choice and Market Environments.” The paper presents the results of an experiment that studies responses to risk and ambiguity in individual choice and in market environments. The primary motivation for the study is to determine if individual attitudes towards ambiguity are conserved across the two environments. The study also investigates whether notions of comparative ignorance (which have been used to explain responses to ambiguity in individual choice settings) have any explanatory power in the market environment. The study suggests that attitudes about ambiguity are more stable than those for risk. The discussant, Vai-Lam Mui, noted that the last mentioned finding differs from those of his study. His major suggestion was that the author discuss the larger implications, notably whether the competition of the marketplace makes individual anomalous behavior irrelevant.

### Learning

Roger A. McCain, “Flexible Learning, Strategy, and Randomness: A Behavioral-Economic Agent-Based Simulation Study.” Classical game theory assumes that agents always choose optimal strategies and that they assume that other agents in the game also do so. However, a good deal of experimental evidence (as well as common sense) suggests that people are not so perfectly rational and only learn by experience to choose optimal; strategies, if they do so at all. But this goes beyond the traditional learning theory. As Erev and Roth note, interaction changes the learning environment, and that, in turn, is likely to change the outcomes, provided that learning is flexible enough to follow the changing environment.

Much evidence from experimental game theory is consistent with the idea that agents choose strategies probabilistically, but assign to each strategy a probability

commensurate with the agent has had with that strategy in the past. This would lead to a probabilistic Nash equilibrium, in which each agent chooses strategies with probabilities commensurate with the success of those strategies, given the probabilities with which other agents choose strategies. This defines a family of choice theories that includes simulated annealing and the quantal response mechanism, among others.

This paper adopts the method of agent-based computational economics and a new model of boundedly rational learning to simulate learning equilibrium strategies in some well-understood games such as the Prisoner's Dilemma. The new model of boundedly rational learning combines elements from simulated annealing and other probabilistic models of strategy choice with other elements from behavioral economics and science, including arousal, search behavior, and the dynamic satisficing theory of Day.

The discussant, Art Goldsmith, suggested that the author attempt a follow-up of certain work of Camerer, with complex learning models and experiments to ascertain the conditions under which people's behavior conform to the models. He added that it would be possible to adjust aspiration achievement, salience, and arousal and observe how those parameters affect learning.

Shlomo Maital, "Discussion Leadership and the Case Method for Innovative Action Learning." **Maital presented the executive education action-learning model applied at Technion Institute of Management, where he serves as academic director. In this model, participants -- senior managers and entrepreneurs in high-tech firms -- meet monthly for intensive workshops on management disciplines. The workshops provide conceptual tools, which company teams apply in real-time to a bottom-line project. During the rest of month, business coaches -- seasoned managers who have led major companies -- meet with the managers to discuss how best to apply these tools to both the company project and to other decisions. This method is based on the premise that in teaching managers, 70% of the knowledge is possessed by the participants, and 30% by the instructor. Success in learning, therefore, depends not on 'teaching' but on leading in-class discussions in which knowledge travels from those in the group who have it to those who need it.**

The discussant, Richard Ball asked, if the projects were based on a kind of teamwork/group dynamics focus that was the value added, or were they strictly bottom

line business practice. He maintained that there was a tension between the two, notably for different materials and in different approaches.

Linda Pelzmann, “Chain Reactions of Investor Sentiment.” Investor sentiment is the theory of how investors actually form beliefs and valuation. Behavioral finance has concluded that financial markets should not in general be presumed to be efficient. Some models are motivated by psychological evidence on failures of individual judgment. This paper puts forward an alternative approach that relates to chain reactions and co-movement of fundamentally unrelated securities as the most important evidence in favor of investor sentiment theory. Contrary to the basic notion of efficient markets, there will be a co-movement in the prices of securities that are fundamentally unrelated to each other solely because they are traded by similar investors, and therefore influenced by similar sentiment. A model of investor sentiment is presented drawing on two appetites—the first for high interest (which soon becomes secondary), and the second for large gains, betting not on fundamental but on future crowd behavior. A chain reaction set off by investor sentiment leads to aggregate results that the individual neither intends nor needs to be aware of. Reference is made to recent empirical trends. The discussant, Tomasz Zaleskiewicz, related the author’s theory of two appetites to work on a psychological life cycle (with a need for profits for consumption and a need for profits for future needs), and to the Slovic/Epstein dichotomy of analytical and experiential modes of decision making.

#### Law and Economics

Francois Facchini, University of Paris, “The Theory of Cultural Evolution and the Value of Market Institutions.” The paper seeks to explain how institutions are formed and why men respect those institutions. The theory of social contract offers a rationalistic explanation of market competition. The theory of cultural evolution breaks up this rationalistic explanation. The complexity of the human system lies in the fact that there is an individual and a group selection process but ignores ethical and moral choices. The origin of reciprocity derives from group selection but the latter does not value reciprocity (or market institutions). Group selection also finalizes human action and explains the evolutionary process but without taking account of individual appraisal. Individual action is reflected in cooperation but also in the Prisoner’s Dilemma. Man acts non-intentionally

to preserve human life and intentionally to maximize his earnings, but without having chosen this objective. The paper proposes to introduce ethics without denying the necessities of the natural world. Coordination criteria like pluralism are a condition to make institutions legitimate. The discussant of the three panel presentations, Shlomo Maital, noted the common threads of political philosophy, morals and ethics, and evolutionary economics. He compared Facchini's paper to the work of the institutional economists, noting that now efforts are underway to theorize about the kinds of things the institutional economists attempted to describe, introducing tools such as game theory.

Mario Rizzo, New York University, "Rules and More Rules." The presentation dealt with the notion of the "Slippery Slope"—the selection of options that tend to lead to choices that would be objectionable to those who favored the initial policy, and the role of rules in trying to prevent a slippery slope. Professor Rizzo discussed the two approaches to deal with the problem—the use of an issue-by-issue evaluation of each proposal on its own merits, and the alternative of establishing "arbitrary" rules to deal with the situations. Among the considerations considered were unintended negative consequences, compulsory charity, and the way in which knowledge can change as a result of government intervention (by creating an "unlearning that can lead to further government intervention, by affecting the awareness of the slopes, and by affecting the incentives to fall into the slopes). Discussant Maital suggested analyzing slippery slopes in terms of game theory—as repeated cooperation or non-cooperative games in which limited, fairly innocuous behavior leads to an undesirable situation.

Francois Moreau, Conservatoire National des Arts et Métiers, "The Role of the State in an Evolutionary Microeconomics." From an evolutionary perspective the role of public policy extends beyond the mere correction of market failures emphasized by neoclassical economics. Public policy may facilitate the market process, even guide it in the case of multiple equilibria, or play a more creative role by allowing agents, individually or collectively, to satisfy certain goals unattainable through market forces alone (particularly in situations of unanticipated evolutions). The paper insists that there is a bounded rationality of both private and public agents that leads to satisficing. It contends, however, that although the scope of useful public policies is broader in an evolutionary approach than in orthodox microeconomics, government's ability to direct

the evolution of the economic system is highly limited (in part because of the process of learning which involves discovering the best “attractors”). The paper proposes normative criteria to serve as public policy guidelines to substitute for the Pareto optimality criterion, namely: 1) rely on market flexibility given the State’s limited information; 2) favor incrementalism, given radical uncertainty; 3) don’t neglect exploration; and 4) strengthen institutions that favor implementation of the aforementioned. Discussant Maital recommended the use of chaos or complexity theory to deal with multiple attractors. He also tied some of his discussion to Facchini’s insistence on the need for institutions that are devised from the cultural personality of a country, and suggested the use of game theory to move from a description of to assumptions about institutions.

### Public Economics

Bijou Yang Lester, Drexel University, “Is a Sales Tax a Good Idea for Internet Commerce?” Even though e-commerce is a small part of the new economy, the paper stresses the potential importance of e-transactions and its interface with other types of general business activities. The paper proposes a behavioral approach to show that imposing an e-tax on e-transactions will deter market activity (as in the case of a sales tax generally). The key to the behavioral approach is to take account of transaction costs involved in searching for information about the commodity of interest. It is maintained that the purchase of computer software and hardware and training efforts involved in surfing the Net should be included in the calculation of the transaction costs in addition to the opportunity costs (time spent in buying and learning about the use of the Net). The discussant, Harold Hochman (Lafayette College) questioned whether e-commerce involves behavior that differs from other commerce and whether there is an external economy in the case of e-commerce that might justify differential treatment.

Simon James, University of Exeter, John Hasseldine, Indiana University, Peggy Hite, University of Nottingham and Marika Toumi, University of Nottingham, “The Role of Tax Agencies in Influencing Taxpayer Response.” The paper discusses how tax agencies might do more to improve tax compliance. It considers the purpose of taxation, offers several definitions of tax compliance, and discusses economic and behavioral approaches to tax compliance. It recommends simpler arrangements, advice to motivate compliance and discusses how various approaches by the tax authorities might affect

taxpayer compliance. The discussant, Michael Hayes (U.S. Internal Revenue Service), noted that the paper considered the taxpayer as a “narrowly” rational individual and also as a more “analytical” individual. Most of his time was devoted to an outline of the restructuring of the IRS approach to tax compliance to include a broader view. He discussed the objective of tax compliance, non-compliance, and implications for resource allocation (including those following from the stage at which a tax collection agency decides to employ its resources to expedite compliance).

### Growth and Development II

John Tomer, “Intangible Factors in the Eastern European Transition: A Socio-Economic Analysis.” Draws on the difficulties of the recent experience of economic transition from socialism to capitalism to maintain that transition involves not only the “hard” features of organizational structure and the legal financial and political relationships of one economic system for another, but also “soft” factors such as attitudes, behavioral orientations, values and beliefs that must mesh with the “hard” elements. If attention to the latter is lacking the result is a deep shock that retards the transition process below the potential. To avoid or reduce this, attention should be paid to intangible capital formation that creates new soft features. Proposes a socioeconomic theory of transition success. The discussant, Ewa Gucwa-Lesny (University of Warsaw), observed that the growth of East Germany with all of the access it had compared to that available to Eastern Europe, reflected a good example of the importance of soft factors.

Ewa Gucwa Lesny, “Income Mobility—Hard Feature with Soft Attributes of the Process of Transition.” Maintains that the difficulty of transformation in post-communist societies is that the reconstruction should not mean a complete rejection of collectivist values. The paper pays particular attention to changes in the level of inequality (including the new phenomenon of unemployment), and stresses the need to ensure education, access to culture and knowledge, the development of social dialogue and of institutions of common interests. Presents data on the changing role of some of these aspects in the process of the economic transition of Eastern Europe, particularly with respect to Poland. The discussant, John Tomer, noted the presence of significant problems despite the success of the Polish economy, which, like high unemployment and inequality, he characterized as typical problems of a capitalist economy. The challenge, he concluded,

was how Poland might draw on the dynamics of a capitalist economy along with contributions of a socialist economy.

Vijayendra Rao, and Michael Woolcock, The World Bank, “Network Living Standards in Indian Slums.” A mixed-methods analysis of the role of social and political networks in the survival and mobility strategies of households in Delhi slums. The qualitative component draws on fieldwork conducted in four slums selected for the different types of migrant communities living within them: recent arrivals, illegal immigrants, South Indian migrants, and those from nearby states. The qualitative material was supplemented by—and both informed the design and interpretation of—data from a qualitative survey drawn from a probability sample of 800 households representative of all Delhi slums. Discussed 1) whether urban risk is different from the risks facing rural households; 2) urban risk and risk management strategies; and 3) the nature and function of slum networks (survival, mobility in housing, mobility in occupation, and mobility in legal status). Anand Swamy (Williams College) related his discussion in part to his own work on the subject.

#### Industrial and Agricultural Organization

Nathan Todd Musick, Congressional Budget Office, “The usefulness of Behavioral Economics for Understanding Innovation Diffusion: Insights from Plant Adoption of Numerical Control.” The paper reviews literature on the nature of both firm decision making and new technology, and provides evidence from case studies of the diffusion of numerically controlled machine tools suggesting that behavioral economic theory is useful for understanding how firms respond to the availability of a new technology. The author concludes that innovation diffusion may be viewed as a disequilibrium process in that while potential users may have an incentive to change, firms’ ex-ante, subjective appraisal could lead them to resist. Policies to encourage new technology may better emphasize the provision of information over subsidization (which may need to be quite large in order to be effective in stimulating the potential users to adopt the innovations). The discussant, Simon Teitel, agreed that the paper provided a useful empirical exercise but argued that what was described was not really new technology and the use of behavioral economics was not shown. Much of the presentation dealt with firms subject to bounded rationality dealing with uncertainty—some using

cost-benefit analysis and others, various short cuts. The size of the firms appears to have been a key variable in determining whether a full-fledged analysis was carried out or not, with small firms lacking the internal division of labor for that. Also, the complexity of controls would have been a deterrent to the purchase of the skill-intensive machinery under consideration.

Lars G. Hassel, Abo Akademi, Gary M. Cunningham, Instituto de Empresa, and Douglas S. Rebne, Stuttgart Institute of Management and Technology, “Trust, Participation and Budgetary Control in International Production.” The study focuses on the element of trust and where it begins in multinational corporations (MNCs). A defining characteristic of the headquarters units of MNCs is the psychic distance between such units and their foreign subsidiaries. Psychic distance is a function of both geographical dispersion and cultural differences between the parent and the subsidiaries. This study uses Hofstede’s cultural dimensions of power distance, uncertainty avoidance and masculinity to unbundle culture as an element inherent in psychic distance between the headquarters and subsidiaries. Research on budget control initiated by Brownell has provided some evidence to indicate that congruence is needed between the levels of budget control by the highest corporate levels and subordinate budget participation in order to enhance budget effectiveness. This view may be contrasted with a purely behavioral perspective on the general policy issue of participative decision making, which would be inclined to promote participation universally as a trust-building tactic in MNC superior-subordinate relationships. The purpose of this study is to determine whether or not psychic distance moderates the effectiveness of the above relationship when exercising control of foreign subsidiaries in an MNC. Using Scandinavian evidence, the study indicates that psychic distance as a proxy for culture does not influence outcomes of participative budget control. Rather, the benefits of participative budget control hold over all subsidiaries. Distance does dilute the effectiveness of the parent’s budget *emphasis* independent of budgetary participation. The discussant, Nathan Todd Musick, raised questions about the significance of the statistical findings. He suggested inclusion of a compelling story (or at least several examples or comparisons between countries) in order to make the argument more convincing.

Mark A. DeWeaver, Ithaca Partners and James A. Roumasset, University of Hawaii at Manoa, “A Correction and *Prima Facie* Test of the Canonical Theory of Share Tenancy.” The paper states that Stiglitz’s classic principal-agency theory of share tenancy does not imply, as commonly supposed, that the incidence of share tenancy increases with the tenant’s degree of risk aversion nor that share contracts are superior to fixed-lease contracts for risk averse farmers. The Stiglitz theory seems to solve questions about share tenancy by positing a trade-off between insurance and incentives. When the model is parameterized based on previous studies of Philippine agriculture, it predicts that fixed-lease contracts will be chosen when the farmers have slight or severe risk aversion and share contracts will be chosen for moderately risk averse farmers, albiet with tenant shares of 80% or higher. In contrast, the highest observed sharing rates in the study area were in the neighborhood of 2/3, with most farmers contracted on 50:50 sharing arrangements. The paper concludes that the risk aversion vs. moral hazard theory is incomplete. Rent contracts must have additional disadvantages and/or share tenancy additional benefits that are not accounted for by the static principal-agency theory. The discussant, David Ribar, found the empirical work intriguing but the criticism of Stiglitz in need of strengthening, and suggested that the authors provide examples to support their two principal criticisms. With respect to the empirical investigation, Ribar praised their use of available data to calibrate a model (lacking direct, individual-level data linking contracts with risk preferences). However, noting that the distribution of the computed optimal contracts do not look anything like their actual distribution, he asked whether the rejection is an indication of a poor theory or just poor implementation by the authors. Questionable notation, explanations of methods and data on risk preferences make it difficult to determine. He suggested that the authors show some parameter values that would lead to a reasonable distribution of contracts and then show how the data are not compatible.

Hugh Schwartz, Towards a More Behavioral Introduction to Industrial Organization.” The paper offers a detailed critique of the IO text that incorporates more behavioral material than any other, *Economics of Regulation and Antitrust* by Viscusi, Vernon and Harrington, revealing that it often fails to reflect important, highly relevant findings from behavioral economics and the cognitive psychology on which much of it is

based. A letter to Schwartz from the principal author, Viscusi, implicitly accepted the general criticism but noted that the text does contain some such material in the chapters on the regulation of economic activity. The discussant at the conference, Bijou Yang Lester, suggested that a behavioral approach may elicit more insights to the understanding of IO if the criticisms were organized around several major behavioral characteristics such as concerns about fairness, coordination issues in management, hyperbolic discounting, all mentioned in the author's paper, but also including social capital. She contended that the recent increase in IT investment is likely to reduce coordination problems and also to contribute to perception of fairness considerations.

Poster Session (Displays supplemented by brief oral expositions)

Anand W. Swamy, Williams College and Arjit Sen, Indian Statistical Institute, "Taxation by Auction: Fund Raising by 19<sup>th</sup> Century Indian Guilds." Analyzes a mechanism used by Indian guilds to raise funds in the 19<sup>th</sup> Century—auctioning to a single firm, the right to remain open for business on holidays.

James Frese, Life Mark Securities Corp., "Consumer Confidence: A Predictor of Stock Market Movements?" Concludes that the Consumer Confidence Index of the Conference Board has greater forecasting power than the University of Michigan Consumer Sentiment Index for overall personal consumption expenditures, though not for all individual components.

Mark Voronovitsky and Shlomo Maital, Technion, "Bandwagon, Bubbles, Cascades, Contagions and Herds: Demand as a Social Activity." **This paper addresses an issue raised originally by Gary Becker: Why don't popular restaurants, with long queues, raise their prices, as happens elsewhere in the presence of excess demand. ( " A Note on Restaurant Pricing and Other Example on Social Influence on Price," Journal of Political Economy XCIX (1991) 1109-16. ) Becker's answer: the existence of the queue signals high quality and popularity, and is itself part of the service restaurants provide; in other words, the queue is both an information provider and part of the restaurant ambience. Voronovitsky and Maital expand on this idea and offer a formal analysis of equilibrium conditions among two competing restaurants, using different assumptions about consumer information ("each consumer knows only his/her own preference and that of one other consumer, in**

**front of him in the queue"; or "each consumer knows the preferences of ALL other consumers"). They find that in equilibrium, nearly all consumers will frequent one restaurant only. Their work builds on the model of Kirman, who explains similar behavior among ants, when the ant pile is equidistant from two equally abundant sources of food . ["Ants, Rationality and Recruitment" Quarterly Journal of Economics. Feb. 1993].**

Michael Hayes, IRS, "The Measurability of Intangible Attributes: Taxation Complexity." Discusses efforts to develop a cardinal measure of tax law complexity for the United States Internal Revenue Service.

Dan Maxwell, The Mitre Corporation, "An Approach to Representing Taxpayer Compliance Burden Using Bayesian Networks." U. S. lawmakers have mandated that the IRS strive to minimize the burden of the hundreds of millions of hours that taxpayers spend to meet their tax obligations. The IRS developed models that estimate and describe taxpayer burden, but the models have been limited to regression based models. A limitation is that they do not capture important dependencies that exist between compliance burden, complexity, total burden and taxpayer decisions. It is contended that Bayesian networks, as represented in the paper, represent these important interactions, improving insight into the behavioral aspects of the tax burden.

#### A Post Conference Reflection

Nathan Berg, University of Texas at Dallas, "Methods in Behavioral Economics: A Critical Reflection on the 2001 Meeting of SABE." Undertakes a critical appraisal of methods in behavioral economics. Introduces three criteria for evaluating the relative merits of different methods of the field: innovation, rhetorical penetration and distinctiveness from neoclassical economics. Guided by those criteria, seven preferred methods are proposed to help define behavioral economics, establish research priorities and coordinate the work of SABE members, namely: 1) theoretical modeling with behavioral assumptions that are more general or that are different from those of neoclassical economics; 2) policy analysis comparing the implications of established theories in behavioral economics; 3) empirical tests of competing behavioral hypotheses; 4) borrowing from sociology, political science, psychology, anthropology, philosophy, history. law and management, to analyze outstanding empirical puzzles in economics; 5)

interviews and case studies; 6) comparative methodology and history of thought; and 7) simulation and evolution.

### Conclusions

Behavioral economics and behavioral finance first broke into the consciousness of the larger economics and finance communities with empirical findings of anomalies from economic rationality built on findings from the other social sciences, most notably, psychology. Case studies of major events that reflected some of those behavioral considerations followed. These descriptions and analyses of past phenomena have begun to be accompanied by theoretical constructs, building especially on the findings of the psychologists and on emerging work in experimental economics. However, as a leading experimental economist has noted, that activity can best be seen as theory testing more than as the verification of empirical realities. The emerging behavioral theory has been largely normative; it seeks to outline what economic agents can be expected to do, and represents an important step in constructing a new paradigm. Few attempts have been made to construct a prescriptive theory, or indeed, to provide satisfactory guidelines for private or public decision-making that indicate how to move from poor to better economic practice, taking into account the limitations imposed by what is emerging from the studies revealing anomalies from traditional economic rationality (and the theory derived from those findings) which indicate that optimization can not always be expected, indeed, it cannot often be expected. (Those findings cannot be characterized, nonetheless, as wild rationality; rather they are almost invariably consistent, quasi-rational patterns, the general nature of which can be anticipated and successfully predicted.) Even though more economists have come to accept the findings of behavioral economics regarding past behavior, and recognize the likelihood that future behavior is also likely to fall shy of rational optimization, they seem to conclude that there is little alternative to framing prescriptions for improved decision making in terms of the traditional framework of rationality. Indeed, they point to approaches (notably learning resulting from identical experiments or from market simulations with sufficient

institutions and sufficient opportunities for exchange) that reduce and sometimes even eliminate the limits to traditional rationality.

The presentations given at the SABE 2001 Conference, the discussant comments and the open participations underscore the breadth and richness of the behavioral approach, but also the incomplete acknowledgement by many researchers of important contributions by others, and the on-going concerns about how best to advance behavioral economics. It is hoped that this overview of what transpired will enable a larger audience to participate in those deliberations.