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Excellent research, top publications, and dedicated young scientist training: The Max Planck Institute of Economics is an active, vibrant community of scholars, consisting of three closely co-operating research units, the Evolutionary Economic Group (Ulrich Witt, Director), the Strategic Interaction Group (Werner Gueth, Director), and a Minerva Research Group (Maria Vittoria Levati, Research Group Leader).

PART OF A STRONG INSTITUTION

The Max Planck Institute of Economics is part of the Max Planck Society, one of Germany’s most successful research organizations. The Max Planck Society employs approximately 4,200 scientists in over 80 different research fields. Currently, there are 80 Max Planck Institutes that conduct basic research in the natural sciences, life sciences, social sciences, and the humanities; all in the service of the public. Like every Max Planck Institute, the MPI of Economics is committed to highest international research standards, with publications in highly respected international academic journals, as well as its own series of “Discussion Papers” and “Annual Research Reports”. The Institute is part of several international networks and EU-funded research projects.

SCIENTIFIC ADVISORY BOARD

The scientific achievements of the Institute are regularly reviewed by the Scientific Advisory Board, a highly prolific group of internationally renowned scientists. These experts are appointed by the President of the Max Planck Society. On the basis of a detailed report, the Scientific Advisory Board evaluates and advises the Max Planck Institute of Economics. Currently, members of the Institute’s Scientific Advisory Board are:

- Simon Gächter, University of Nottingham, Great Britain;
- Jean Luc Gaffard, Université de Nice Sophia-Antipolis, Valbonne, France;
- Steven Klepper, Carnegie Mellon University, Pittsburgh, USA;
- Franco Malerba, University of L. Bocconi, Milan, Italy;
- J. Stanley Metcalfe, University of Manchester, Great Britain;
- Luigi Mittone, University of Trento, Italy;
- Arno Riedl, University of Maastricht, Netherlands;
- J. Barkley Rosser, James Madison University, Harrisonburg Virginia, USA;
- Marie-Claire Villeval, University of Lyon, France.

YOUNG SCIENTISTS AT THE INSTITUTE

A core function of the Max Planck Institute of Economics is to help young scientists build their skills and reputation. Consequently, it organizes numerous training seminars and provides support for young colleagues. It takes part in the Jena Graduate School Human Behavior in Social and Economic Change at the Friedrich Schiller University in Jena. Integrated in this framework, the Institute established two graduate programs in cooperation with a variety of scientific partners. Moreover, doctoral training courses, summer schools, workshops and guest lectures designed to keep scientists at the frontier of scientific knowledge occur regularly.
Research Group Evolutionary Economics

The evolutionary approach to economics focuses on the systematic transformations that economic institutions, production, and consumption activities undergo over time. It explains the driving forces behind the historical transformations and explores the consequences they are likely to have for our economy. In a broader perspective, the approach connects the kind of evolution underlying human-made transformations to evolution in nature. Given the strong interdisciplinary character of its research, the group works with a variety of theoretical concepts and empirical methods. Its research results have been published in a wide range of international journals and books. The group runs a long established working paper series, continuously organizes conferences and workshops, and takes part in several scientific cooperations with international partners. The group’s senior members teach classes at the University of Jena and participate in the joint doctoral programs.

Changes taking place at the various layers of the economy are a ubiquitous phenomenon now, and they seem to have accelerated over the past decades. Rather than being exclusively driven by (unexplained) exogenous shocks disrupting economic equilibria, a large part of the transformations are caused from within the economy by human determination, laboriousness, and inventiveness. Indeed, it is this endogeneity of change that makes the evolutionary character of the economy. As a consequence, institutions, production technology, and governance regimes are continually transformed. By enabling an increased, and ever more efficient, utilization of natural resources, they help expanding the human economic niche. The consequences in terms of the rising population, increasing per capita income, improved health and life expectancy, and reduced drudgery and deprivation are obvious, particular in comparison with the historical record of past centuries. However, ways for making production and consumption patterns more sustainable are not necessarily spontaneously generated.

The Evolutionary Economics Group focuses on these evolutionary features of the economy. Because they appear in different forms at different layers of the economy, a portfolio of more specific problems from diverse sub-fields of economics have been chosen and are explored in an exemplary fashion:

- the long-term transformation of the production technology with its effects on the changing division of labor, on employment, on income distribution (nationally and globally) and on the environment; the long term changes in the quality of human labor and its ever-rising knowledge requirements; the role of knowledge and energy as factors of production
the growth and qualitative change of consumption expenditures and the role that product innovations play for this; the behavioral explanation of subjective values and preferences in more “naturalistic” terms; the transformation of consumption patterns into more sustainable forms

- imitation, substitution, and clustering in industries; life cycle patterns in firms and industries; the role of entrepreneurship and social models in the development and growth of firms

- the emergence and change of economically relevant institutions in interaction with the newly developing technologies and their commercial potential; the dynamic interplay between informal and formal institutions; the implications of evolutionary change of institutions for economic growth, development, and sustainability of the economy

- and, last but not least, the implications of a theory of value derived from innate needs and learned wants for normatively assessing economic welfare, inequality, and the terms of the social contract in face of an ever more expanding anthropogenic utilization of nature

The principles and modeling tools of such an approach to economics often relate to notions like self-organization and selection and may thus help to enhance a dialogue between economics and the sciences.
The study of interactive decisions by way of game-theoretical calculations has inspired not just the modern evolution of economics and business management, but also stimulated the evolution of other social sciences such as philosophy, political science, social psychology and sociology. For theoretical economics and business management, the adoption of game theoretical methods leads naturally to a methodological standardization. Even the extremely normative position of Game Theory and its multifaceted modeling techniques, e.g. by illustrating sequential decisions, as well as individual information conditions, is meeting with resistance – whether by rejection of the rationality postulate or because of the over-accuracy of the model without empirical findings. By its mathematical tradition, the spread of Game Theory has also contributed to the mathematization of economics and business management, a development which is not welcomed by everybody.

Game Theory has influenced economics and business management, as well as other disciplines in many ways and will continue to do so. The question what denotes rational behavior is also asked in philosophy. The question, whether or not rational behavior can be justified as a result of evolution and learning processes, is not only discussed in Evolutionary Game Theory, but also along similar lines in Evolutionary Biology. Furthermore, Experimental Game Theory seeks to explore – mainly following economic, cognitive and social psychology approaches – how humans make decisions in strategic situations.

All this raises hope that Game Theory, as a general method throughout all social sciences, will not only help to overcome the barriers between theoretical economics and business management, but also the barriers between economic sciences and their neighboring disciplines.

EXPERIMENTAL ECONOMICS IN JENA

Since August 2002, the Strategic Interaction Group has been conducting economic experiments in its modern computer laboratory with capacity for up to 32 participants. Additionally, since mid-2004, a video laboratory with eight soundproof booths is available for research work allowing interactive decisions with different communication options between subjects.

A principal purpose of the research program is to examine and explain experimental findings by paying attention to the restrictions on human cognition and data processing. The scientific work involves observing and modeling how decisions are generated. Instead of trying this in a more general approach, which would be a purely speculative, and hence highly dubious
option, the research activities focus on a limited selection of partially complex, e.g., network formation games, and partially simply structured situations such as portfolio choices or search tasks. Here also concepts of social psychology must be considered.

The progress in developing a general behavioral theory of decision-making is, of course, rather slow. In social psychology, there are a variety of rational ideas – e.g., Equity Theory, Framing and Prospect Theory and Attribution Theory – but no general framework exists for combining such components yet. We, nevertheless, find it indispensable to pursue our work in close interaction with psychologists, e.g., by organizing joint summer schools.

Aspiration (Adjustment) Theory offers promising input for modeling the behavioral theory of boundedly rational choice with and without strategic interaction. One can imagine a general basic pattern which can be adapted to concrete situations. The substantial characteristics of such a pattern could be a dynamic deliberation process whose stages rely on considerations of increasing complexity. At each stage, a decision consideration is generated (decision generator), which is then subjected to an acceptance test (decision filter). At the first stage, in each case one refers to relevant former experiences meaning that a decision maker has a repertoire of good and bad behavioral patterns which is continuously updated by ex-post evaluation of the implemented behavior.
In 2007, the Max Planck Society developed the “Minerva Program”. It offers highly qualified female scientists the opportunity to gain experience for senior posts in science by leading research groups. Since July 2008, Maria Vittoria Levati has been leading a Minerva Research Group at the Max Planck Institute of Economics, with its budget being part of the Strategic Interaction Group budget. The group’s research is characterized by the application of experimental and analytical methods to various issues (such as cooperation, trust, social preferences, risk attitudes, bounded rationality, etc.) in a range of fields including bargaining theory, decision making under risk and uncertainty, public economics, and oligopoly markets.

One of the main interests of the institute’s Minerva research group is to understand and model the voluntary contribution phenomenon often detected in public goods experiments and in real life. The fact that people vote, take part in collective actions, care for the environment and donate to charities suggests that the strict self-interest hypothesis is inconsistent with the degree of voluntary cooperation we observe around us. Despite these observations, the outcome remains suboptimal. The target of this research activity is twofold:

- investigating subjects’ behavior in the presence of public goods, and
- seeking institutional mechanisms that might help move toward the social optimum.

The scientific work involves both ascertaining the factors that may affect voluntary contributions and varying the framework in order to allow for more efficient allocations.

A further interest of the group concerns the provision of threshold public projects that raise mixed feelings, i.e., indivisible public projects from which some parties benefit but others suffer. So far, research has focused on private provisions of threshold public goods. Other work focusses on public bad problems, in which individuals can extract resources from a common pool yielding negative externalities for everyone. To this point, we are not aware of any other study that has examined behavior in the presence of public projects raising mixed feelings and has been based on an axiomatically derived (procedurally fair) point provision mechanism. Our prior objective is to explore whether, as a reflection of its efficiency-enhancing property, the public project raising mixed feelings will be provided even when it competes with a traditional public good – which does not harm anyone. People’s opposite valuations of a public project raise deep philosophical questions about whether society’s choices should be based on the unanimous consent of its members and, if so, how its individual members might exercise their veto power.
The Max Planck Institute of Economics has established various means to close the gap between the international standards for focal research and the qualifications of the junior scientists. Alongside several doctoral training courses, summer schools, workshops and guest lectures, the institute takes part in the recently established Jena Graduate School Human Behavior in Social and Economic Change at the Friedrich Schiller University in Jena. Integrated in this framework, the institute has established two graduate programs in cooperation with a variety of scientific partners.

**IMPRS UNCERTAINTY**

The International Max Planck Research School on Adapting Behavior in a Fundamentally Uncertain World (IMPRS Uncertainty) is a joint project of the MPI of Economics in Jena, the MPI for Research on Collective Goods in Bonn, the MPI for Human Development in Berlin, and the Department of Social Psychology and the School of Economics and Business Administration of the Friedrich Schiller University Jena. International partners are the Program in Cognitive Science, and Workshop in Political Science and Policy Analysis at the Indiana University Bloomington, the Center for the Study of Rationality at The Hebrew University of Jerusalem, and the Interdepartmental Centre for Research Training in Economics and Management at University of Trento. Established in 2007, the IMPRS Uncertainty is jointly financed by the Max Planck Society and the Friedrich Schiller University Jena. At the moment more than 35 students with different backgrounds are admitted to the research school. Scientific cooperation between students from different academic background and hosting institutions show the interdisciplinary of the program.

IMPRS Uncertainty and the Graduate College “Economics of Innovative Change” jointly organize an annual Summer School
The IMPRS Uncertainty encourages interdisciplinary research

Research Focus
In a world of missing information, vague descriptions, and the appearance of surprises and disappointments, if it comes to anticipate the behavior of human interaction partners, humans need to deal with this fundamental uncertainty. Psychology helps to understand how each participant reacts to it. Economics adds knowledge about strategic interaction with others and law provides knowledge on the comparative performance of institutions and its guiding impact on societies. Since the three disciplines are natural complements, IMPRS Uncertainty combines these subjects and offers participants an interdisciplinary three year Ph.D. program. This allows for a more adequate explanation of human decision-making behavior under uncertainty.

Curriculum
The IMPRS rests on three pillars: an annual four week summer school, local training, and workshops. Every spring, each student presents the actual state of his/her Ph.D. thesis at the Thesis Workshop. Each fall, students meet at one of the partnering institutions to gain more insight in the research of the IMPRS partners at the Topics Workshop. More specific and more continuous training is organized at the respective host institution.

Local Frameworks and International Cooperation
Ph.D. students become members of the respective institutions, and have the opportunity to interact with scholars from multiple disciplines. Students from Jerusalem, Trento, and Bloomington will participate in the summer schools in Jena. Additionally,
Ph.D. students of other programs are admitted to the Summer School to enrich conversations. Conversely, Ph.D. students from Germany will have access to academic departments in Jerusalem, Trento and Bloomington. The IMPRS encourages its graduates to spend a term at either of these institutions.

Admission
Excellent candidates with training in economics, law, psychology and related disciplines will be considered. Each graduate student will be allocated to one of the managing institutions, and awarded a scholarship to cover his/her living expenses for up to three years. The IMPRS charges no tuition fees.

THE ECONOMICS OF INNOVATIVE CHANGE

This doctoral program in economics is a joint project of the Max Planck Institute of Economics and the Department of Economics at Friedrich Schiller University Jena. The program is funded by the German Science Foundation (DFG) and offers top level graduated students the opportunity to achieve a doctoral degree (Ph.D.) in economics. In 2010, the program has been evaluated by the DFG, resulting in an extension until 2015.

Research Focus
The Research Training Group addresses unresolved questions and problems concerning the economic dynamics of firms, markets, sectors and regions with an analytical focus on the endogenous driving forces mainly understood as the activities of invention and innovation.

Curriculum
The Ph.D. education is designed as a three year effort. The first year will be more devoted to improve theoretical knowledge and methodological competences, the second year will concentrate on dissertation research, and the third year is meant to complete the Ph.D. thesis. The program offers a summer school each year. In the second or third year a visiting research stay at a partner university abroad for about three months is encouraged.

Admission
The Research Training Group offers scholarships for doctoral students (duration of two and one years) with a background in economics and business administration, and also scholarships for post-docs (duration of two years). In order to train prospective Ph.D. candidates early on, the Research Training Group additionally offers qualification scholarships (duration of 12 months) for FH/university of applied science students in economics or business administration who strive to achieve the university degree allowing them to run for a Ph.D., as well as research scholarships for university students in economics and business administration.

More Information
http://gk.wiwi.uni-jena.de
or write to the spokesman of the Research Training Group, Professor Dr. Uwe Cantner (uwe.cantner@uni-jena.de)
Service Units

The Max Planck Institute of Economics is one of approximately 80 institutes of the publicly funded Max Planck Society for the Advancement of Science. Over 75 scientific and non-scientific positions, Ph.D. students, scholarship holders and student auxiliary staff work at this institute. In addition, there are trainees and guest scientists visiting from around the world. Four service areas support these scientists at the institute: Administration, IT Department, Library, and Public Relations.

The administration, consisting of eight permanent staff members, relieves the scientists of the necessary daily clerical work including personnel administration, bookkeeping, purchasing, completion of projects, and guestroom administration. It ensures a clean facility and security at the institute.

The administration department also employs apprentices, who are being trained in personnel administration, bookkeeping and purchasing, and also receive an overview of secretarial duties and other administrative tasks. Thus, the institute offers young people an optimal way to start their professional career. At the same time the administration is more flexible in supporting the work of the three scientific groups.

Research depends upon a modern and continually upgraded IT and communications infrastructure. The IT Department’s mission is to provide a well planned and maintained robust infrastructure capable of responding to the ever increasing and changing computational demands. The IT staff provides support and solutions for all technological matters, ranging from network infrastructure to telephony including provision of IT security, procurement, and...
Apart from offering several services for scientists, the library can also be used by students and the interested public.

software licensing. The department supports visiting guests, seminar programs, and two computer labs for experimental economics. The staff also resolves all technical issues from minor printing problems to the management of online experiments. A specially trained scientific database developer helps to program web-based experiments. The IT department has four staff members and takes its community social responsibility seriously by offering both apprenticeships and internships to interested individuals.

The library considers itself as a scientific library reflecting the main research points of the institute. It currently contains 29,000 books, 7,000 journal volumes and 159 subscribed journals. In cooperation with the central information provision of the Max Planck Society, one can access about 21,000 electronic journals, as well as 120 full text and reference databases. In 1995, the valuable private library of Gottfried Haberler with its 3,200 books was acquired and integrated. Access to the library’s catalogue is available via the institute’s homepage. The library is primarily a resource for the institute’s scientists; however interested members of the public are always welcome to use the library resources. Computers with internet access are also available for research by the public.

The public relations department communicates scientific results to the broader public. By supporting the dialog between science and society, it strengthens the public’s understanding of the institute’s work. Regular press releases are a natural part of the department’s tasks, as is organizing events where the public is invited to visit. It also assists in the production of regular reports about the institute.
History

The Max Planck Institute of Economics, established September 1, 1993 in Jena, was the first institute of economic science of the Max Planck Society. Its research originally focused on the transition processes of socialist systems in the former German Democratic Republic and other Eastern European states. Later, the institute expanded its research scope and included e.g. change in modern economies, as well as experimental economics, and entrepreneurial studies.

LOCATION AND FACILITIES

All beginnings are challenging: Before the present facility was opened, the Institute was spread out over several sites in Jena. Founding director Manfred Streit demonstrated a remarkable talent to improvise. For example, he rented several apartments to provide space for scientists and an impromptu library.

In 1995, the “Villa Rodigast” (built 1884) with its park-like grounds was purchased and developed into the Institute’s permanent home. Between 1995 and 1997 new facilities, designed by the architects Prof. Ulf Decker and Claudia Decker, were built. At the same time, the Villa Rodigast was renovated and connected to the new building with a glass bridge.

Today, the villa offers seminar rooms and a modern cafeteria, as well as hosting the IT department and administration. All research groups are located in the new building, along with the library, modern video laboratories, and several guest apartments.

THE INSTITUTIONAL ECONOMICS UNIT, 1993–2000

The Institutional Economics Unit was established by founding director Professor Dr. Manfred E. Streit. Its basic proposition was that societal economic development depends to a large extent on the choice of its institutional framework. Concentrating on institutions, the units’ research activities were guided by key-questions concerning the emergence of institutions in a society, the impact of institutions on economic processes and its change over time – and how can political agents influence this change according to their policy objectives? Since 2000, Prof. Streit is affiliated with the Institute as a professor emeritus.

THE ENTREPRENEURSHIP, GROWTH AND PUBLIC POLICY GROUP, 2003–2010

The Entrepreneurship, Growth and Public Policy Group was directed by Prof. David Audretsch. The group provided a locus for systematic interdisciplinary scholarly research on entrepreneurship in order to develop an intellectual framework for entrepreneurship to become a bona fide field of scholarship. Entrepreneurship is a process bringing about economic change. The research agenda examining this process consisted of three elements: The first was to identify the factors that shape the amount of entrepreneurial activity at the individual, organizational, and regional level. The second aspect focused on the impact of entrepreneurship on economics. The third aspect concerned the provision of both a theoretical and empirical framework highlighting those aspects of entrepreneurship that can serve as a guiding light to direct policy makers in understanding the debates.
The city of Jena is located in the heart of Germany. It is surrounded by picturesque forests and offers a perfect landscape for biking, hiking, canoeing or just relaxing. Jena is also a vibrant center of science, shaped by the Friedrich Schiller University Jena (founded in 1558) and several scientific institutions, including three Max Planck Institutes, as well as Leibniz, Fraunhofer, and Helmholtz Institutes. The city has a population of 103,000 and is the second largest city in the federal state of Thuringia, after Erfurt.

At the same time biotechnology, software development, and e-commerce firms are driving the city’s growth. Jena’s vibrant local scene, with bars, pubs, cabarets, concerts, and festivals, is complimented by Weimar, home to Goethe and “his” German National Theater – only 20 kilometers away.

TRAVEL DIRECTIONS

International visitors usually arrive at the airports in Berlin, Frankfurt/Main, or Munich. Jena can be easily accessed by train with the high speed InterCity Express (ICE) trains, on routes from Frankfurt/Main to Dresden or Munich to Berlin. For more information, please visit our homepage (www.econ.mpg.de).