

ESF Exploratory Workshop on

Individual and Team Decisions in Economics

Innsbruck (Austria), 4-6 December 2008

SCIENTIFIC REPORT

Convened by:

**Matthias SUTTER ^①, Martin KOCHER ^②
and Frans van WINDEN ^③**

^① Department of Economics, University of Innsbruck, AT

^② Department of Economics, University of Munich, DE

^③ CREED, University of Amsterdam, NL

Executive summary

From 4th to 6th December 2008, around 20 economists from Europe, the U.S., Israel and Japan convened for an exploratory workshop on the economics of the decision maker. The workshop's foremost interests were 1) to present latest research on individual- versus team-decision making and 2) to discuss opportunities for future collaboration that might range from single projects to larger networks. The workshop was accompanied by ESF-representative Prof. John Yfantopoulos from Athens who introduced the ESF and its various programs to workshop participants.

As regards the dissemination and discussion of current research, a total of 10 presentations were given during the workshop. As indicated in the workshop proposal, the presentations included a healthy mix of theoretical and experimental methods and focused mainly on the following topics (where the assignment of speakers to topics is based on the main theme addressed in a presentation): learning of individuals and teams (Gary Charness, David Cooper, Bernd Irlenbusch, Matthias Sutter), bargaining and agenda setting (Jeannette Brosig, Ronny Razin, Joep Sonnemans), and social and risk preferences of individuals and teams (Gary Bornstein, Alistair Munro, Anthony Ziegelmeyer).

In more detail, the presentations have included the following key insights – which are particularly important to improve our understanding of the workshop's main topic:

- Team behaviour is different from individual behaviour even in the absence of direct communication, i.e. when interaction is only unilateral through advice giving and advice receiving (David Cooper).
- Coalition building in groups gets much more efficient through bilateral communication (Jeannette Brosig).
- There seems to be no substantial difference between individuals and teams in price competition games (Joep Sonnemans).
- Decision making of couples is strongly affected by which spouse has the ultimate power of control. Hence, joint decisions may depend on who can actually make a decision (Anthony Ziegelmeyer).

- Household decision-making is characterized by a large degree of turn-taking (where one party wins every other turn) (Alistair Munro).
- Getting attention on agendas is relatively easy to achieve, but difficult to sustain (Ronny Razin).
- Teams comply better with Bayesian rationality than individuals (Bernd Irlenbusch).
- Teams are better characterized by fictitious learning models than by reinforcement learning (Matthias Sutter).
- Teams are less prone to conjunction fallacies than individuals (Gary Charness).
- Groups are not competitive per se, hence the discontinuity effect (which claims that teams act more competitively than individuals) is not a universal group phenomenon (Gary Bornstein).

At the conclusion of the workshop – which was chaired by Frans van Winden – all participants had a lively discussion about possible future collaboration. It seems that some research projects have gained momentum during this workshop (e.g., projects by Cooper and Sutter, Brandts and Cooper, Charness and Villeval, Brosig, Kocher and Sutter, or Irlenbusch and Sutter). As regards the application for international networks, Kocher and Sutter expressed an interest in possibly applying for an ITN or a network of excellence in the EU's framework program. The other participants – and John Yfantopoulos – agreed that the topic of team decision making is a relevant and promising topic. The intention of Kocher and Sutter is to check the conditions for a possible application and contact the other workshop participants and ask for their interest in joining the proposal if the conditions can be met. All three convenors (Kocher, Sutter and Frans van Winden) expressed some scepticism concerning an ITN application if partners from industry would have to be included in such a proposal. John Yfantopoulos advised the convenors and the other participants to check the conditions carefully.

Scientific content, assessment and future direction of the field

The workshop focused very sharply on the differences in the economic decision-making of individuals and teams and on how decisions are made within teams (see the book of abstracts at the end of this file). In a nutshell, the presentations and the discussion of related research can be summarized as follows: (1) In general, team decisions can be considered as more rational than individual decisions in a standard game theoretic sense (assuming common knowledge of rationality and utility maximization). When posing the top 10 open research questions, Camerer (2003) included the examination of team decision making as one of them, conjecturing that standard game theoretic predictions might better account for team decisions than for individual decisions. The results presented during the workshop substantiate this conjecture. (2) Team decision making is more strongly driven by payoff considerations than individual decisions. More precisely, maximizing the own payoff (and the payoff of the other team members) seems to be much more in the centre of strategic decision making than this is the case for individual decision making. Teams are therefore more egoistic in their behaviour, whereas individual decisions are more influenced by social preferences. (3) Teams are able to correct for individual errors in many situations. As a consequence, teams are quicker in learning in new environments.

One of the key insights gained in the workshop – and this is due to the excellent suggestion of one of the ESF-referees of our proposal to invite Alistair Munro – was that examining the economic decisions of couples (who spent together up to over 40 years) opens up a new avenue for team research. It allows to pose several challenging questions, such as (i) under which conditions spouses become more similar in their economic actions (it does not seem to be driven by the length of the marriage, though, but rather by socio-economic status and the similarity of spouses therein), (ii) how are decisions made in couples and which spouse's preferences are better reflected in the joint decision, or (iii) what kind of strategy is chosen when couples have to make repeated decisions (taking turns has been found to be one of the leading strategies).

Taken together, the workshop presentations showed that differences in individual and team decision making apply to a wide range of economically relevant situations, covering –

among others – choices under risk, investment decisions, auctions, oligopolistic competition, bargaining or political decision making.

The workshop has also revealed that the influence of the decision making process in teams is not yet fully understood and that more work in this area is needed to get to better grips with the “black box” of team decision making. For instance, there are not yet systematic studies that examine how team decision making via electronic chat, personal face-to-face encounters, or simple voting mechanisms might affect team decisions in different ways.

Another important avenue for future research is the search for field experiments with teams. So far, the empirical analysis of team decision making is almost exclusively confined to laboratory experiments. Though laboratory experiments provide a large degree of control, the teams set up in the lab are often of an ad-hoc type. Running experiments with couples or families is a step in the right direction, as it allows for examining real teams (i.e. couples) that have known each other for quite some time. The next step will have to be to analyze also teams in other naturally occurring environments, such as work teams in companies. Given the expertise of the workshop participants, it would be a pity if this step would not be undertaken in the next few years.

Finally, there was also a broad consensus that the theoretical underpinning of experimental/empirical studies will need to be strengthened in the future. Several recent papers by Ronny Razin have shown the right way, which is to formalize the decision making process in teams and to derive clearly testable predictions from these formal models. This step will make research on team decision making even more strongly accepted as one of the thriving fields in economic research.

Final programme

Thursday 4 December 2008

Afternoon *Arrival*

17.00 *Informal get-together (Meeting room, Institute of Public Finance)*

Friday 5 December 2008

09.00-09.20 **Welcome by Local Organizers?**
Matthias Sutter and Martin Kocher

09.20-09.40 **Presentation of the European Science Foundation (ESF)**
John Yfantopoulos (ESF Standing Committee for Social Sciences)

09.40-12.30 Morning Session

09.40-10.25 **Why are two heads better than one?**
David J. Cooper (Florida State University)

10.25-11.00 *Coffee / Tea Break*

11.00-11.45 **How coalitions get built. Evidence from an extensive form coalition game with renegotiation and externalities**
Jeannette Brosig (University of Duisburg-Essen)

11.45-12.30 **Groups and individuals in a Bertrand pricing game with the possibility of cartels**
Joep Sonnemans (University of Amsterdam)

12.30-14.00 *Lunch*

14.00-17.30 Afternoon Session

14.00-14.45 **Individual and couple decision behavior under risk**
Anthony Ziegelmeyer (Max-Planck Institute of Economics, Jena)

14.45-15.30 **Experiments on household decision-making**
Alistair Munro (Royal Holloway, University of London)

15.30-16.00 *Coffee / tea break*

16.00-16.45 **Attention for sale: Endogenous agenda formation in sequential vs. simultaneous debates**
Ronny Razin (London School of Economics)

16.45-17.30 **Herding among groups**
Bernd Irlenbusch (London School of Economics)

19.30 *Santa Claus and Dinner*

Saturday 6 December 2008

09.30-12.15 Morning Session

09.30-10.15 **Efficiency gains from team-based coordination – Large-scale experimental evidence**

Matthias Sutter (University of Innsbruck)

10.15-11.00 **On the conjunction fallacy in probability judgment: New experimental evidence**

Gary Charness (University of California, Santa Barbara)

11.00-11.30 *Coffee / Tea Break*

11.30-12.15 **Relative gain considerations by individuals and groups**

Gary Bornstein (Hebrew University Jerusalem)

12.15-14.00 *Lunch*

14.00-15.45 Afternoon Session

14.00-15.30 **Discussion on follow-up activities**

Frans van Winden

15.30-15.45 *Final remarks and departure*

Final list of participants

- Gary Bornstein (Hebrew University Jerusalem)
- Jordi Brandts (University Autònoma Barcelona)
- Jeannette Brosig (University Duisburg-Essen)
- Gary Charness (University of California San Diego)
- David Cooper (Florida State University)
- Simon Czermak (University of Innsbruck)
- Enrique Fatas (University of Valencia)
- Francesco Feri (University of Innsbruck)
- Bernd Irlenbusch (London School of Economics)
- Martin Kocher (University of Munich)
- Peter Martinsson (University of Gothenburg)
- Alistair Munro (National Graduate School for Policy Studies, Tokyo)
- Stefan Napel (University of Bayreuth)
- Ronny Razin (London School of Economics)
- Daniela Rützler (University of Innsbruck)
- Joep Sonnemans (University of Amsterdam)
- Matthias Sutter (University of Innsbruck)
- Frans van Winden (University of Amsterdam)
- Marie-Claire Villeval (University of Lyon)
- Anthony Ziegelmeyer (Max Planck Institute of Economics Jena)

Statistical information on participants

We would like to note that Kfir Eliaz had to cancel his participation on short term notice due to personal reasons, and Rudolf Kerschbamer was ill during the workshop. This left us with 20 participants (not including the ESF-representative), of which 3 were women. The participants originated from 10 different countries, which breaks down to 4 from Austria, 4 from Germany, 2 from Spain, 2 from the Netherlands, 2 from the U.S.A., 2 from the United Kingdom, 1 from Japan, 1 from Sweden, 1 from Israel, and 1 from France. The average age of participants was slightly above 40 years, with the youngest being 25 years and the oldest slightly above 60 years.

Total participants: 20

Male: 17; Female: 3

Countries represented:

Austria	4	Germany	4
Spain	2	Netherlands	2
United Kingdom	2	Sweden	1
France	1	Israel	1
USA	2	Japan	1