



### Departmental Seminar

Peter P. Wakker

"The Rich Domain of Uncertainty: Source Functions and Their Experimental Implementation" \*

Since Keynes (1921) & Knight (1921) we know that uncertainties in economics usually come with no objective statistical probabilities. If then still probabilities are used to model such uncertainties, they have to be subjective (de Finetti 1931; Savage 1954). However, Ellsberg (1961) showed that in most cases no subjective probabilities can be assigned (ambiguity). We need new models for beliefs and decisions. Only at the end of the 1980s, people succeeded in developing such models (Gilboa & Schmeidler), at first theoretical and normatively motivated. They assumed expected utility for known probabilities and focused on ambiguity aversion. We investigate ambiguity descriptively. Ambiguity is measured extensively in experimental and behavioral economics nowadays, with predictors investigated in regressions. One number is commonly taken to capture ambiguity, being an index of ambiguity *aversion*. This index mostly is the alpha from the alpha maxmin model for multiple priors. The ambiguity aversion index is then treated similarly as the index of risk aversion. We propose generalizations: 1. Ambiguity should depend on the source of uncertainty (=events generated by a common mechanism and with a uniform degree of ambiguity). Tractability is to be maintained though. 2. There is so much ambiguity seeking that it should be incorporated into models. 3. We need nonexpected utility also for known probabilities. We introduce a theoretical model of sources that can give exact predictions and ambiguity premiums. We demonstrate its tractability in an experiment where we get tractable graphs of source functions that fully capture ambiguity. Surprisingly, we can revive subjective probabilities in agreement with Ellsberg's paradoxes and ambiguity. Finally, I report on a recent survey over N=1,935 households, investigating the impact of ambiguity on household portfolio choices. In particular, we investigate the nonparticipation paradox of households investing less in stocks than any rational theory can explain.

\* with Abdellaoui, Aurélien Baillon, & Laetitia Placido; and with Roy Kouwenberg & Steven Dimmock)

### Departmental Workshop

Christiane Schwieren

"Predicting Behavior Across Games – Can Personality Help?" (work in progress) \*

Economists generally assume stability of preferences (e.g., Becker & Stigler, 1977). Using experimental games, researchers try to understand social preferences of people, tacitly assuming that these "social preferences" also have at least some stability. Even though different experimental games capture slightly different social motives, we should therefore expect that knowing a subjects' behavior in one game should help predicting behavior in another, related game. We use personality measures (trait hostility (BDHI (1957)) and risk attitude (Holt & Laury, 2002)) as mediating factors that allow us to predict behavior in an ultimatum game knowing behavior in a trust game, more specifically, knowing that subjects send low amounts in a trust game. We have subjects play a trust game first and then an ultimatum

game, keeping roles constant (but not necessarily partners). A-player behavior in the trust game does not significantly correlate with A-player behavior in the ultimatum game. This is easy to understand, as different motives might drive A-players towards sending low amounts in a trust game: One motive could be risk aversion, i.e., they are afraid that B players do not reciprocate and therefore don't send much. Another motive might be an anti-social attitude, which we capture with our measure of "hostility". Someone who is risk averse should send rather higher amounts in an ultimatum game, while someone who is hostile, should send low amounts both in a trust game and an ultimatum game. In a first analysis using median split of the two personality measures we confirm this: Those in the high-hostility group who send low amounts in the trust game do send significantly less in the ultimatum game than those in the low-hostility group. For the Holt & Laury measure, the opposite holds, those being risk averse and sending low amounts in the trust game do send significantly more in the ultimatum game than those who are risk neutral. To the best of our knowledge, this is a first instance where knowing personality variables can help predicting behavior from one game to the other.

\* with Julia Müller

## Talks and Research Visits

**Andreas Roider** presented his paper "The Role of Information in Performance Schemes: Evidence from a Field Experiment" (joint with Florian Englmaier and Uwe Sunde) at the European Business School (EBS), Wiesbaden, on May 10.

**Jörg Oechssler** presented the paper "How do subjects cope with ambiguous situations when they become even more ambiguous?" (joint work with Jürgen Eichberger and Wendelin Schnedler) in the Hans-Möller Faculty Seminar at the University of Munich on May 3, 2011.

## New Publications

Oechssler, J., Schmidt, C. and Schnedler, W.: *On the Ingredients for Bubble Formation: Informed Traders and Communication*, Journal of Economic Dynamics and Control, forthcoming.

## Miscellaneous

Jörg Oechssler received a "Frontier Research Grant" for the project: "Is Imitation Unbeatable" funded by the Excellence Initiative.

**Editorial deadline for issue 11/2011 of the newsletter:  
Wednesday, May 18, 2011, 12 o'clock  
newsletter@awi.uni-heidelberg.de**

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