

Curriculum Vitae: Nicolas A. Klein

October 2013

Webpage: www.nicolasklein.com

Email: kleinnic@yahoo.com

Phone: (+1)-514-343-7908

(+1)-514-605-7354

(+1)-619-337-4896

Education:

November 2010: Ph.D. in Economics (*summa cum laude*), University of Munich; Dissertation Prize of the Economics Department at the University of Munich and Volkswirte Alumni Club

January 2007: M.A. in Economics, University of Munich; Alumni Prize for Young Economists from Volkswirte Alumni Club

September 2005: B.A. in Economics, University of Munich

Research Interests:

Microeconomics; economic theory; strategic information acquisition and transmission; dynamic incentive problems

Academic Positions:

Since July 2012: Assistant Professor, Department of Economics, University of Montreal; Researcher at CIREQ (since September 2012)

July 2010 – July 2012: Postdoctoral researcher, Chair of Economic Theory (Prof. Benny Moldovanu), Department of Economics, University of Bonn

September 2009 – May 2010: Visiting Assistant in Research, Department of Economics, Yale University

February 2008 – December 2009: Researcher in Project Area A8 (Strategic Information Generation and Transmission) of SFB-TR 15 (German Science Foundation)

February 2008 – August 2009: Research Assistant, Chair of Dynamic Economic Theory (Prof. Sven Rady), Department of Economics, University of Munich

Research Visit:

August 15 – September 30, 2011: Yale University

Scholarships:

January 2010 – June 2010: Doctoral scholarship, National Research Fund of Luxembourg

October 2006 – February 2008: Doctoral scholarship, Research Training Group GRK 801 (German Science Foundation)

Papers:

Strategic Learning in Teams (forthcoming in *Games and Economic Behavior*)

This paper analyzes a two-player game of strategic experimentation with three-armed exponential bandits in continuous time. Players play bandits of identical types, with one arm that is safe in that it generates a known payoff, whereas the likelihood of the risky arms' yielding a positive payoff is initially unknown. When the types of the two risky arms are perfectly negatively correlated, the efficient policy is an equilibrium if and only if the stakes are high enough. If the negative correlation is imperfect and stakes are high, there exists an equilibrium that leads to efficiency for optimistic enough *prior* beliefs.

Negatively Correlated Bandits

(with Sven Rady; *Review of Economic Studies*, 78(2): 693-732)

We analyze a two-player game of strategic experimentation with two-armed bandits. Either player has to decide in continuous time whether to use a safe arm with a known payoff or a risky arm whose expected payoff per unit of time is initially unknown. This payoff can be high or low, and is negatively correlated across players. We characterize the set of all Markov perfect equilibria in the benchmark case where the risky arms are known to be of opposite type, and construct equilibria in cutoff strategies for arbitrary negative correlation. All strategies and payoffs are in closed form. In marked contrast to the case where both risky arms are of the same type, there always exists an equilibrium in cutoff strategies, and there always exists an equilibrium exhibiting efficient long-run patterns of learning. These results extend to a three-player game with common knowledge that exactly one risky arm is of the high payoff type.

The Importance of Being Honest

This paper analyzes the case of a principal who wants to give an agent proper incentives to investigate a hypothesis which can be either true or false. The agent can shirk, thus never proving the hypothesis, or he can avail himself of a known technology to produce fake successes. This latter option either makes the provision of incentives for honesty impossible, or does not distort its costs at all. In the latter case, the principal will optimally commit to rewarding later successes even though he only cares about the first one. Indeed, after an honest success, the agent is more optimistic about his ability to generate further successes. This in turn provides incentives for the agent to be honest before a first success.

Will Truth Out?--An Advisor's Quest To Appear Competent

(with Tymofiy Mylovanov)

We study a dynamic career-concerns environment with an agent who has incentives to appear competent. It is well known that dynamic career concerns create incentives for an agent to be conservative and to tailor his actions and reports towards a commonly held prior opinion. The existing models, however, have focused on short time horizons. We show that for long time horizons there exist countervailing incentives for the agent to report his true opinion and to act in the principal's best interests. In particular, if the time horizon is sufficiently long, the agent is sufficiently patient, and the quality of the competent expert is high, the beneficial long-term incentives overwhelm any harmful myopic ones, and the incentive problem vanishes.

Work in Progress:

- Strongly Symmetric Equilibria in Bandit Games (with Johannes Hörner & Sven Rady)
- Experimentation On A Continuous State Space (with Eduardo Faingold)

Conference Presentations (by myself or a co-author):

2013: North American Summer Meeting of the Econometric Society; Annual Meeting of the Society for Economic Dynamics in Seoul; European Meeting of the Econometric Society; 4th Workshop on Stochastic Methods in Game Theory in Erice

2012: International Conference on Game Theory at Stony Brook

2011: European Winter Meeting of the Econometric Society; Midwestern Micro-economic Theory Conference; Canadian Economic Theory Conference; North American Summer Meeting of the Econometric Society; International Conference on Game Theory at Stony Brook; Annual Meeting of the Society for Economic Dynamics at Ghent; Society for the Advancement of Economic Theory at Faro

2010: Midwestern Micro-economic Theory Conference at Evanston, IL; International Conference on Game Theory at Stony Brook; World Congress of the Econometric Society in Shanghai; Annual Meeting of the European Economic Association in Glasgow, UK; Workshop on Stochastic Methods in Game Theory in Erice

2009: European Meeting of the Econometric Society; International Conference on Game Theory at Stony Brook; Summer School on "Limited Cognition, Strategic Thinking and Learning in Games" in Bonn; Society for Economic Dynamics; North American Summer Meeting of the Econometric Society; SFB-TR 15 Workshop for Young Researchers at Humboldt University Berlin; SFB-TR 15 Conference in Caputh

2008: European Meeting of the Econometric Society; Annual Meeting of the Society for Economic Dynamics; North American Summer Meeting of the Econometric Society; European Summer Symposium in Economic Theory (Gerzensee); SFB-TR 15 Conference in Gumpersbach, Germany; European Doctoral Group in Economics (EDGE) Jamboree in Copenhagen, Denmark

2007: SFB-TR 15 Workshop for Young Researchers in Bonn; SFB-TR 15 Summer School on Contract Theory

Seminar Presentations:

Århus, Arizona State University, Berlin, Bielefeld, Bonn (2011 and 2008), Exeter, Montréal, Munich, Paris (Séminaire Parisien de Théorie des Jeux 2013 & École Polytechnique 2010), Pennsylvania State University, Southern Methodist University, University of British Columbia in Vancouver, University of Iowa, Yale University

Teaching Fields:

Microeconomics, economic theory, game theory, dynamic optimization

Teaching Experience:

Winter term 2013: Microeconomics (PhD class), Economics of Organization (3rd-year B.A. class)

Summer semester 2011: Teaching assistant for Advanced Topics in Mechanism Design (doctoral topics course, Prof. Moldovanu)

Summer semester 2009: Teaching assistant for Dynamic Methods in Economics and Finance (doctoral course, Prof. Rady) and Advanced Game Theory (doctoral course, Prof. Dimitrov)

Winter semester 2008/09, summer semester 2009, winter semester 2010-11: Advisor on students' diploma theses

Summer semester 2008: Teaching assistant for student seminar on Corporate Governance (advanced undergraduate course, Prof. Rees)

Winter semester 2007/08: Teaching assistant for Advanced Game Theory (doctoral course, Prof. Rady)

Refereeing Work:

American Economic Review; Review of Economic Studies; Theoretical Economics; Journal of Economic Theory; Games and Economic Behavior; Journal of Law, Economics and Organization; Journal of the European Economic Association; Journal of Economic Dynamics and Control; Canadian Journal of Economics; Journal of Economics; B.E. Journal of Theoretical Economics;

Conference Co-Organized:

1st CIREQ Montreal Economic Theory Conference: Economics of Persuasion and Communication with Applications to Political Economics (October 4—5, 2013, with Ming Li)

Personal Information:

Citizen of Luxembourg; fluent in English, French and German

References:**Sven Rady**

Chair of Mathematical Economics
University of Bonn
Adenauerallee 24-42
D-53113 Bonn (Germany)

Phone: + 49-228-73-62080
Fax: + 49-228-73-62086
Email: rady@hcm.uni-bonn.de

Dirk Bergemann

Department of Economics
Yale University
Box 208281
New Haven, CT 06520-8281

Phone: 203-432-3592
Fax: 203-432-6167
Email: dirk.bergemann@yale.edu

Johannes Hörner

Department of Economics
Yale University
Box 208281
New Haven, CT 06520-8281

Phone: 203-432-5352
Fax: 203-432-6167
Email: johannes.horner@yale.edu

Benny Moldovanu

Chair of Economic Theory II
University of Bonn
Lennéstr. 37
D-53113 Bonn (Germany)

Phone: + 49-228-73-6395
Fax: + 49-228-73-7940
Email: mold@uni-bonn.de