# Academic Report for 2011  (01.01.2011–31.12.2011)

## Hannes Leitgeb, April 26th 2012

The *Munich Center for Mathematical Philosophy* (MCMP) had a wonderful year 2011. From about April 2011, when the starting team had arrived in Munich, the center has been a hotbed of academic activities.

Here is a list of the most important such activities in 2011 – the activities in full detail can be found described at our new website at http://www.mcmp.philosophie.uni-muenchen.de/index.html:


## (I) We presented our center to the academic public at various occasions:

Interview and presentation of members of the MCMP, *The Reasoner*, 48-55, http://www.kent.ac.uk/secl/philosophy/jw/TheReasoner/vol5/TheReasoner-5(4).pdf

Interview in LMU Munich *Einsichten*, 2011, Newsletter 02 (German), http://www.uni-muenchen.de/aktuelles/publikationen/einsichten/112/1125.pdf

Interview in *Münchner Uni-Magazin*, 03/11 (German),
http://www.mcmp.philosophie.uni-muenchen.de/about/leitgebmum_03_11.pdf

Presentation-Videos of the MCMP at:
http://www.mcmp.philosophie.uni-muenchen.de/about/presentation_videos/index.html
Two of these videos were shot when our center gave two group presentations at the MCMP *Workshop in Mathematical Philosophy* which took place at the huge conference of the German Society for Philosophy (DGPhil) in Munich in September 2011.


## (II) We were using different media in order to reach out to the public:

MCMP @ iTunes U: The MCMP regularly records lectures and talks, which one can watch on iTunes U. So far we have recorded 107 research presentations that are available freely and online.

MCMP @ Facebook: New video recordings are announced there, which are available for direct download, especially for Linux-Users who cannot use iTunes.

M-Phi Blog: A blog dedicated to mathematical philosophy.

What's Hot in Mathematical Philosophy?: Members of our center are in charge of the "What's Hot in Mathematical Philosophy?" series which appears regularly in The Reasoner (an electronic journal on reasoning that is based at Kent, UK).

**(III) We organized a great variety of academic events including speakers from all over the world, and we had a great numbers of excellent visitors:**

### Colloquium in Mathematical Philosophy (Thursdays):

| Date | Time | Person | Adress |
|---|---|---|---|
| 10.03.2011 | 18-20 Uhr | Peter Brössel | Ludwigstr. 31/II, R.225 |
| 14.04.2011 | 18-20 Uhr | Franz Huber | Ludwigstr. 31/II, R.225 |
| 21.04.2011 | 18-20 Uhr | Elijah Millgram | Ludwigstr. 31/II, R.225 |
| 28.04.2011 | 18-20 Uhr | Leon Horsten & Philip Welch | Ludwigstr. 31/II, R.225 |
| 05.05.2011 | 18-20 Uhr | Daniel di Liscia | Ludwigstr. 31/II, R.225 |
| 19.05.2011 | 16-18 Uhr | Berit Brogaard | Ludwigstr. 33/II, Library |
|  | 18-20 Uhr | Volker Halbach | Ludwigstr. 31/II, R.225 |
| 26.05.2011 | 16-18 Uhr | Alexandru Baltag | Ludwigstr. 33/II, Library |
|  | 18-20 Uhr | Sonja Smets | Ludwigstr. 31/II, R.225 |
| 09.06.2011 | 16-18 Uhr | Charles B. Cross | Ludwigstr. 33/II, Library |
|  | 18-20 Uhr | Catarina Dutilh-Novaes | Ludwigstr. 31/II, R.225 |
| 16.06.2011 | 18-20 Uhr | Peter Schröder | Ludwigstr. 31/II, R.225 |
| 30.06.2011 | 16-18 Uhr | Michael Potter | Ludwigstr. 33/II, Library |
|  | 18-20 Uhr | Heinrich Wansing | Ludwigstr. 31/II, R.225 |
| 07.07.2011 | 16-18 Uhr | Matthew Braham | Ludwigstr. 33/II, Library |
|  | 18-20 Uhr | Neil Tennant | Ludwigstr. 31/II, R.225 |
| 21.07.2011 | 17-18 Uhr | J.W. Romeijn | Ludwigstr. 31/II, R.225 |
| 12.08.2011 (Friday) | 14-16 Uhr | Greg Restall | Ludwigstr. 31/II, R.225 |
|  | 16-18 Uhr | David Ripley | Ludwigstr. 31/II, R.225 |
| 13.10.2011 | 18-20 Uhr | Frederik Herzberg | Ludwigstr. 31/II, R.225 |
| 20.10.2011 | 16-18 Uhr | Daniel Cohnitz | Ludwigstr. 31/II, R.225 |
|  | 18-20 Uhr | Mark Colyvan | Ludwigstr. 31/II, R.225 |
| 27.10.2011 | 16-18 Uhr | Simone Duca | Ludwigstr. 31/II, R.225 |
|  | 18-20 Uhr | Timothy Williamson | Ludwigstr. 31/II, R.225 |
| 28.10.2011 (Friday) | 10-12 Uhr | P. Suppes | Ludwigstr. 33 /I, Seminar Room |
| 03.11.2011 | 18-20 Uhr | Markus Panstar | Ludwigstr. 31/II, R.225 |
| 10.11.2011 | 18-20 Uhr | Michiel van Lambalgen | Ludwigstr. 31/II, R.225 |
| 17.11.2011 | 16-18 Uhr | Andreas Stokke | Ludwigstr. 31/II, R.225 |
|  | 18-20 Uhr | Dora Achourioti | Ludwigstr. 31/II, R.225 |
| 24.11.2011 | 16-18 Uhr | Johan van Benthem | Ludwigstr. 31/II, R.225 |
| 01.12.2011 | 16-18 Uhr | Paul Hoyningen | Ludwigstr. 31/II, R.225 |
|  | 18-20 Uhr | Kai Wehmeier | Ludwigstr. 31/II, R.225 |
| 08.12.2011 | 16-18 Uhr | Chris Pincock | Ludwigstr. 31/II, R.225 |
|  | 18-20 Uhr | Denis Bonnay | Ludwigstr. 31/II, R.225 |
| 15.12.2011 | 16-18 Uhr | Jean-Yves Beziau | Ludwigstr. 31/II, R.225 |
|  | 18-20 Uhr | Huw Price | Ludwigstr. 31/II, R.225 |

## Colloquium in Logic, Philosophy of Science, and Philosophy (Wednesdays):

| Date | Time | Person | Adress |
|---|---|---|---|
| 27.04.2011 | 18-20 Uhr | Philip Welch | |
| 18.05.2011 | 16-18 Uhr | Krister Segerberg | Ludwigstr. 31/II, R.225 |
| | 18-20 Uhr | Peter Aczel | Ludwigstr. 31/II, R.225 |
| 25.05.2011 | 18-20 Uhr | Douglas Patterson | Ludwigstr. 31/II, R.225 |
| 01.06.2011 | 16-18 Uhr | Richard Pettigrew | Ludwigstr. 33/II, Library |
| | 18-20 Uhr | Robert Brandom | LMU Main Building, A 140 |
| 08.06.2011 | 18-20 Uhr | Catarina Dutilh-Novaes | Ludwigstr. 31/II, R.225 |
| 22.06.2011 | 18-20 Uhr | Jeff Horty | Ludwigstr. 31/II, R.225 |
| 29.06.2011 | 14-16 Uhr | Richard Bradley | Carl-Friedrich-von-Siemens Stiftung |
| | 16-18 Uhr | Alistair Isaac | |
| | 18-20 Uhr | Thomas Placek | |
| 06.07.2011 | 18-20 Uhr | Matthias Schirn | Ludwigstr. 31/II, R.225 |
| 27.07.2011 | 18-20 Uhr | Graciela de Pierris | Ludwigstr. 31/II, R.225 |
| | 20-22 Uhr | Michael Friedman | Ludwigstr. 31/II, R.225 |
| 16.08.2011 | 18-20 Uhr | Greg Restall | Ludwigstr. 31/II, R.225 |
| 19.10.2011 | 14-16 Uhr | Jake Chandler | Ludwigstr. 31/II, R.225 |
| | 18-20 Uhr | Mark Colyvan | Ludwigstr. 31/II, R.225 |
| 26.10.2011 | 16-18 Uhr | Timothy Williamson | Ludwigstr. 31/II, R.225 |
| 02.11.2011 | 18-20 Uhr | Gerhard Ernst | Ludwigstr. 31/II, R.225 |
| 09.11.2011 | 18-20 Uhr | Michiel van Lambalgen & Dora Achourioti | Ludwigstr. 31/II, R.225 |
| 16.11.2011 | 16-18 Uhr | Josef Perner | Ludwigstr. 31/II, R.225 |
| | 18-20 Uhr | Ingolf Max | Ludwigstr. 31/II, R.225 |
| 23.11.2011 | 16-18 Uhr | Johan van Benthem | Ludwigstr. 31/II, R.225 |
| 07.12.2011 | 18-20 Uhr | Michael A. Esfeld | Ludwigstr. 31/II, R.225 |
| 14.12.2011 | 18-20 Uhr | Sam Sanders | Ludwigstr. 31/II, R.225 |

## Work-in-Progress Seminars (Thursdays at Noon):

Thursdays, 12-14 pm, Ludwigstr. 31/EG, R. 028

| Date | Person |
|---|---|
| 31.03.2011 | Hannes Leitgeb |
| 28.04.2011 | Ole Hjortland |
| 12.05.2011 | Jeff Ketland |
| 19.05.2011 | Julien Murzi |
| 26.05.2011 | Martin Fischer |
| 09.06.2011 | Jürgen Landes |
| 16.06.2011 | Vincenzo Crupi |
| 30.06.2011 | Steve Awodey |
| 07.07.2011 | Toby Meadows |
| 14.07.2011 | Jeff Ketland |
| 15.09.2011 | Frederik Herzberg |
| 20.10.2011 | Corina Strößner |

| | |
|---|---|
| 27.10.2011 | Patrick Girard |
| 03.11.2011 | Matthias Frisch |
| 10.11.2011 | Thomas Meier |
| 17.11.2011 | Ian Rumfitt |
| 24.11.2011 | Rasmus Rendsvig |
| 01.12.2011 | Christopher Menzel (postponed: February 2nd 201 |
| 08.12.2011 | Denis Bonnay |
| 15.12.2011 | Anna Maria Eder |
| 22.12.2011 | Christopher Menzel |

## The "Forum Logik" Series  (organized by Roland Poellinger):

January 13, 2011: Daniel Roth, „Eine kleine Geschichte der axiomatischen Mengenlehren und ihre Intuitionen".

January, 27, 2011: Open Session "Causal Worlds – Aspects of Semantics & Pragmatics in Lewis, Menzies, Pearl" with Georgios Karageorgoudis, Stefan Ruhland (Regensburg), Roland Poellinger, Patenschaft: Hans Rott; more details at http://logic.rforge.com/causalworlds.

February, 3, 2011: Andreas Pietz, "Nothing But The Truth" (joint work with Umberto Rivieccio).

February, 10, 2011: Herbert Huber, "Paradoxien der rationalen Akzeptanz und ihre Auswirkungen auf Überzeugungssysteme".

## Senior Visiting Fellows (Up to One Semester) and Special Lectures Held by Them:

**Ed Zalta (Stanford, funded by the MCMP):**
5 Lectures: Wed, June 01, 10-12 a.m.; Ludwigstr. 33/II, Library Fri, June 03, 10-12 a.m.; Ludwigstr. 33/I, seminar room Mon, June 06; 10-12 a.m.; Ludwigstr. 33/I, seminar room Wed, June 08, 10-12 a.m.; Ludwigstr. 33/I, seminar room Fri, June 10; 12-14 p.m.; Ludwigstr. 33/II, Library.

**Branden Fitelson (Rutgers, funded by an LMU Center for Advanced Studies Fellowship):**
Fri, June 10; 10-12 a.m.; Ludwigstr. 33/I, seminar room Fri, June 17; 10-12 a.m.; Ludwigstr. 33/I, seminar room Fri, June 24; 10-12 a.m.; Ludwigstr. 33/I, seminar room.

**Steve Awodey (Carnegie Mellon, funded by the MCMP):**
Late April to 31.07.11. Lecture series on Category Theory.

**Peter Aczel (Manchester, funded by an ESF INFTY Network Travel Grant):**
May 2011. Research visit.

**Christopher Menzel (Texas A&M, funded by the MCMP and Texas A&M):**
01.07.11 to 30.06.12. Research visit.

**Charles B. Cross (Georgia, funded by the MCMP):**
First half of June. Research visit.

**MCMP Workshops:**

**Workshop MCMP Meets German Idealism, April, 18th, 2011**
Carl Friedrich von Siemens Foundation (Suedliches Schlossrondell 23)

**Research Seminar on Foundations of Statistics, May 5th, 2011**

**Workshop on Modality, June 5th, 2011**
Main Building of the LMU (Geschwister-Scholl-Platz 1), room B106 Main building.
11:00 - 12:15: Ed Zalta. 12:15 - 14:15: Lunch break. 14:15 - 15:30: Charles B. Cross. 15:30 - 16:45: Martin Fischer. 16:45 - 17:15: Coffee. 17:15 - 18:30: Steve Awodey. 19:00: Dinner.

**Workshop on Computational Metaphysics, June 11th, 2011**
Main Building of the LMU (Geschwister-Scholl-Platz 1), Room M 210 ("MKE")
09:30 - 10:45: Stephan Hartmann. 10:45 - 12:00: Roland Poellinger. 12:00 - 14:00: Lunch break. 14:00 - 15:15: Ed Zalta. 15:15 - 16:30: Branden Fitelson. 16:30 - 17:00: Coffee. 17:00 - 18:15: Ludger Jansen. 19:00: Dinner.

**Workshop on Bayesian Methods in Philosophy, June 15th, 2011**
Carl Friedrich von Siemens Foundation (Suedliches Schlossrondell 23)
10:00 - 11:15: Branden Fitelson. 11:15 - 12:30: Vincenzo Crupi. 12:30 - 14:30: Lunch break. 14:30 - 15:45: Niki Pfeifer. 15:45 - 17:00: Hannes Leitgeb. 17:00 - 17:30: Coffee. 17:30 - 18:45: Charles B. Cross.  19:15: Dinner.

**Workshop on Carnap, July 28th, 2011**
Ludwigstrasse 33, Seminar room 1st floor
10:00 - 11:15: Steve Awodey. 11:15 - 12:30: Georg Schiemer. 12:30 - 14:30: Lunch break. 14:30 - 15:45: Paul Dicken. 15:45 - 17:00: Andre Carus. 17:00 - 17:30: Coffee. 17:30 - 18:45: Michael Friedman.  19:15: Dinner.

**Workshop in Mathematical Philosophy, September 13th-14th, 2011**
Speakers: Volker Halbach, Branden Fitelson, Stephan Hartmann, Vincent Hendricks, and two group presentations of members of the MCMP. This workshop is part of the Conference of the German Society of Philosophy (DGPhil) which will take place at LMU Munich from 11.09.11 to 15.09.11. Here is the link to the overall conference website: http://www.dgphil2011.uni-muenchen.de/index.html This is the current program of the MCMP for the DGPhil-Kongress: Program-MCMP (PDF, 194 kB).

**Bristol-Munich Workshop, September 22nd-23rd, 2011**
Sub-topic: Social Choice and Arrow's Theorem Workshop-Program (PDF, 174 kB).

**Workshop at VIU (Venice) on Philosophical Applications of Social Choice Theory, November 7th-11th, 2011** (co-organized with Martin Rechenauer).


## Additional Activities:

**Richard Bradley, Masterclass**
28.06.11; 14-20 p.m.; Hochschule f. Philosophie, Kaulbachstr.29.06.11; 14-16 p.m.; Carl-Friedrich-von-Siemens-Stiftung

**Special Lectures by Hannes Leitgeb**

05.07.2011, *Logic and the Brain*, 18-20 pm, Carl-Friedrich-von-Siemens-Stiftung, Nymphenburg, Munich.

15.11.2011, *Logische Folge. Einführung in die Logik,* 16-18pm, Großer Physiksaal, LMU.

**(IV) We hosted LMU faculty, Doctoral Fellows, Post-Doctoral, Junior Visiting Fellows, and Long-Term Senior Visiting Fellows:**

This is the list of LMU faculty, doctoral, postdoctoral, junior, and long-term senior visiting fellows that were members of the MCMP during some period in 2011 (our short-term senior visiting fellows in 2011 had been listed before):

Holger Andreas
Albert Anglberger
Vincenzo Crupi
Paul Dicken
Martin Fischer
Mathias Frisch
Norbert Gratzl
Ole Hjortland
Andreas Kapsner
Jeff Ketland
Johannes Korbmacher
Hans-Christoph Kotzsch
Hannes Leitgeb
Thomas Meier
Christopher Menzel
Julien Murzi
Niki Pfeifer
Roland Poellinger
Olivier Roy
Georg Schiemer
Florian Steinberger
Johannes Stern
Marta Sznajder

For reasons of space, when we now turn to a detailed description of the academic activities of these members of the MCMP in 2011, we will not mention: their teaching activities; which conferences or reading groups they attended; which talks they gave in our internal MCMP Work-in-progress seminar; at which MCMP hiring committees they served; and which PhD students they supervised.

Holger Andreas

## 1. Type of Affiliation with the MCMP

Holger Andreas is an Assistant Professor at the Chair of Philosophy of Science at LMU Munich. He joined the MCMP as a member (funded by the LMU) in April 2011. Furthermore, from October 2011 (until March 2012) Holger Andreas held a Fellowship *Junior Researcher in Residence* at the Center for Advanced Studies, LMU Munich.

## 2. Research Projects

Holger Andreas has been working primarily on his habilitation thesis which is titled *Thinking in Frames: A Structuralist Approach to Belief Revision* and which introduces a novel version of structuralism in the philosophy of science that is based on a combination of traditional structuralism with methods from belief revision theory and nonmonotonic reasoning, that is, formalisms that govern *inductive* reasoning. (He submitted his habilitation thesis at LMU in February 2012.)

## 3. Academic Output

Publications:

- "A Structuralist Theory of Belief Revision", *Journal of Logic, Language and Information* 20 (2011), 205—232.
- "Semantic Challenges to Scientific Realism", *Journal for General Philosophy of Science* 42 (2011), 17—31.
- "Wissenschaftslogik von Gedankenexperimenten", *Deutsche Zeitschrift für Philosophie* 59, 75—91.

Presentations:

- "A Structuralist Theory of Belief Revision", *Conference of the European Epistemology Network*, Lund, 03/2011.
- "A Structuralist Theory of Belief Revision", *14th Congress for Logic, Methodology and Philosophy of Science*, Nancy, 07/2011.
- "Towards a Logic of Modularity", *International Workshop on Universal Language*, Santa Fe, Argentina, 10/2011.


Albert J.J. Anglberger

## 1. Type of Affiliation with the MCMP

Albert Anglberger has been at the MCMP from 01/10/2011 based on an (not MCMP funded) LMU Research Fellowship.

## 2. Research Projects

### 2.1. Logic of Imperatives, Norms and Non-Cognitivism (Paper 3.2 (b))

In moral philosophy non-cognitivists generally assume that imperatives and norms are not truth-apt, i.e. they are neither true nor false. Logical entailment, consistency and validity on the other hand are usually defined in terms of truth and falsehood. Obviously, for non-cognitivists working on the logic of imperatives this leads to a serious problem, which is today known as *Jørgensen's dilemma*. In a recent paper in the journal *Analysis* Josh Parsons started a debate of whether or not logic favors cognitivism over non-cognitivism (if we consider Jorgensen's dilemma to be a problem). Albert Angleberger is currently working on a paper in which he argues that logic is completely neutral w.r.t. these meta-ethical questions. Additionally he offers a way out of Jørgensen's dilemma.

### 2.2. Dynamic deontic logic and the Principle of Nonmaleficence (Paper 3.2 (c))

The *principle of nonmaleficence* is one of the four principles of biomedical ethics developed by T.L. Beauchamp and J.F. Childress. This principle is consequentialistic in nature (i.e. consequences of actions are regarded to be the important aspect of an action) and it requires a physicians to avoid harm (in all circumstances). I try to embed this principle in the well-known formalism of dynamic logics. Dynamic logics have been developed in computer science to reason about the behavior of computer programs – once again: something that is consequentialistic in nature. This similarity allows Albert Anglberger to formalize the principle of nonmaleficence in a slight extension of the language of the well-kown dynamic logic *PDL*.

### 2.3. Virtue ethics and problems for moral judgements (Paper 3.1 (a))

Virtue ethics – which dates all the way back to Aristotle – claims that a good person has to be virtuous. When we can call a person *virtuous* and what counts as a virtue is highly controversial though. On the other hand, virtue ethics is able to cope with some of the problems that other traditional theories in moral philosophy run into (e.g. consequentialism). Albert Anglberger wrote a paper together with Alexander Hieke (Salzburg) in which they explain all these different accounts and their problems by exemplifying them through analyzing certain characters of George R.R. Martin's best-selling novel series *A Song of Ice and Fire*.

### 2.4. Deontic Logic and Game Theory (Paper 3.2 (a))

Since its inception in 1951, deontic logic – the logic of obligation, permission and forbiddance – has been an interdisciplinary research project. In all these years, many connections to other areas of research have been discovered. One of these areas is game theory, which studies interactive rationality and the behavior of rational agents. By mathematically describing a concept of obligation, according to which an action is obligatory if it is the weakest permitted alternative, Albert Angleberg together with Olivier Roy and Norbert Gratzl were able to discover another link between game theory and deontic logic: certain game theoretic models turn out to be models for that kind of deontic logic.

## 3. Academic Output

Publications:

- "Lord Eddard Stark, Queen Cersei Lannister: Moral Judgements from Different Perspectives" (with A. Hieke), in: H. Jacoby (ed.), *Game of Thrones and Philosophy: Logic Cuts Deeper Than Swords,* John Wiley & Sons, 2012.
- "You Ought to Do Something! The Logic of Obligation as Weakest Permission" (with O. Roy and N. Gratzl), in preparation (a).
- "Do Not Obey This Command! Cognitivism and the Logic of Imperatives", in preparation (b).
- "Von dynamischer deontischer Logik zu formaler Medizinethik: Zum Prinzip der Schadensvermeidung", in preparation (c).

Further Activities:

- Albert Anglberger is organizing the conference *Formal Ethics 2012* in Munich (www.formalethics.net); he secured funding of EUR 5000 from the excellence initiative grant of LMU Munich.

Vincenzo Crupi

## 1. Type of Affiliation with the MCMP

Vincenzo Crupi was at the MCMP as an MCMP Postdoctoral Fellow during the period from January 2011 up to September 2011 and then as an MCMP Visiting Fellow from October 2011 until the end of 2011.

## 2. Research Projects

Most of Vincenzo Crupi's research in this period was devoted to the development of a new axiomatic approach to probabilistic measures of evidential support (or confirmation) and explanatory power (Crupi, Chater, and Tentori, forthcoming; Crupi and Tentori, forthcoming a,b,c; Crupi, 2012). One further contribution in formal epistemology concerns the relationships between belief revision and theories of verisimilitude (Cevolani, Crupi, and Festa, 2011). Vincenzo Crupi also carried out collaborative research on a well-known cognitive bias labelled the "conjunction fallacy" along two lines of investigation: (i) theoretical arguments and original data dispelling worries about the reality of the phenomenon (Tentori and Crupi, 2012a), and (ii) a novel explanatory framework for the phenomenon and the presentation of experimental evidence in its support (Tentori, Crupi, and Russo, forthcoming; Tentori and Crupi, 2012b). One further contribution in judgment and decision making addressed inconsistent patterns of context-dependent choices in healthcare (Dumas, Gonzalez, Girotto, Pascal, Botton, and Crupi, forthcoming).

## 3. Academic Output

Publications:

- "Confirmation as Partial Entailment: A Representation Theorem in Inductive Logic" (with K. Tentori), forthcoming (a) in *Journal of Applied Logic*.
- "A Second Look at the Logic of Explanatory Power (with Two Novel Representation Theorems)" (with K. Tentori), forthcoming (b) in *Philosophy of Science*.
- "Confirmation Theory" (with K. Tentori), forthcoming (c) in: A. Hájek and C. Hitchcock (eds.), *Oxford Handbook of Philosophy and Probability*, Oxford: Oxford University Press.
- "Il ragionamento induttivo" (with K. Tentori), forthcoming (d) in: V. Girotto (ed.), *Psicologia del pensiero*, Bologna: Il Mulino.
- "New Axioms for Probability and Likelihood Ratio Measures" (with N. Chater, and K. Tentori), forthcoming in *British Journal for the Philosophy of Science*.
- "On the Determinants of the Conjunction Fallacy: Probability vs. Inductive Confirmation", (with K. Tentori and S. Russo), forthcoming in *Journal of Experimental Psychology: General*.
- "The Context of Available Options Affects Healthcare Decisions: A Generalization Study" (with F. Dumas, M. Gonzalez, V. Girotto, C. Pascal, J.-F. Botton), forthcoming in *Medical Decision Making*.
- "An Argument for Not Equating Confirmation and Explanatory Power", *The Reasoner*, 6/3 (2012), 39—40. [Erratum in *The Reasoner*, 6/4, p. 68.]
- "On the Conjunction Fallacy and the Meaning of *and*, Yet Again: A Reply to Hertwig, Benz, and Krauss (2008)" (with K. Tentori), *Cognition* 122 (2012), 123—134.
- "How the Conjunction Fallacy is Tied to Probabilistic Confirmation: Some Remarks on Schupbach (2009)" (with K. Tentori), *Synthese* 184 (2012), 3—12.
- "Verisimilitude and Belief Change for Conjunctive Theories" (with G. Cevolani and R. Festa), *Erkenntnis* 75 (2011), 183—202.


Presentations:

- "Formal Epistemological Explication: News for the Bayesian Agenda", *Formal Epistemology Group*, University of Konstanz, Konstanz, March 19th, 2012.
- "More Verisimilar Banking: A Novel Analysis of the Linda Paradox" (with G. Cevolani, and R. Festa), *Biennial Conference of the European Philosophy of Science Association,* Athens, October 7th, 2011.
- "Two Representation Theorems for Probabilistic Explanatory Power (with K. Tentori), Workshop *Formal Epistemology meets Experimental Philosophy,* Tilburg Center for Logic and Philosophy of Science, Tilburg, September 30th, 2011.
- "New Evidence on Probability, Confirmation, and the Conjunction Fallacy" (with K. Tentori and S.Russo), Workshop *Formal Epistemology Meets Experimental* Philosophy, Tilburg Center for Logic and Philosophy of Science, Tilburg, September 29th, 2011.
- "Confirmation as Partial Entailment: A Representation Theorem in Inductive Logic" (with K. Tentori), *Progic 2011: The Fifth Workshop on Combining Probability and Logic*, Columbia University, New York, September 11th, 2011.

- "New Axioms for Probability and Likelihood Ratio Measures" (with N. Chater and K. Tentori), *Seventh European Congress of Analytic Philosophy,* Milan, September 5th, 2011.
- "Adhocness from a Bayesian Point of View" (with V. Iranzo), *Seventh European Congress of Analytic Philosophy,* Milan, September 5th, 2011.

Further Activities:

Vincenzo Crupi applied as a principal investigator for a joint project (with: J. Nelson and B. Meder, MPI Berlin; L. Martignon, Universität Ludwigsburg; and K. Tentori, Center for Mind/Brain Sciences, Trento) entitled *Model of Information Search: A Theoretical and Empirical Synthesis* within the Priority Program *New Frameworks of Rationality* (SPP 1516) of the Deutsche Forschungsgemeinschaft (DFG). The application was successful. Funds to his research in Munich will be for three years (2011—2014; Grant CR 409/1-1: € 47,212).

Vincenzo Crupi is also a member of the organizing committee of FEW 2012 (9th Annual Formal Epistemology Workshop), Munich, May 29 – June 1, 2012, which is organized by the MCMP.


Paul Dicken

## 1. Type of Affiliation with the MCMP

From January 2011 until September 2011, Paul Dicken was a Visiting Fellow at the MCMP, funded by the University of Cambridge; from October 2011, he received an independent (not MCMP-funded) Alexander von Humboldt Postdoctoral Fellowship.

## 2. Research Projects

At the MCMP, Paul Dicken has been extending his previous research in the philosophy of science (in particular, on van Fraassen's constructive empiricism) to include the immediate history of the contemporary debate on anti-realism (in particular, the history of the work of Rudolf Carnap). He has been working closely with other members of the MCMP (in particular, Georg Schiemer and Jeff Ketland) who have the technical expertise in these areas to help me apply these results back to the contemporary debate. His most recent research explores the methodological similarities between Carnap's meta-philosophical views regarding the philosophy of science with van Fraassen's recent meta-epistemology.

## 3. Academic Output

Publications:

- "Tolerance and Voluntarism", forthcoming in *Philosophical Papers* **42**.
- "Constructive Empiricism", forthcoming in: D. Pritchard (ed.) *Oxford Bibliographies Online*, Oxford: Oxford University Press.
- "Instrumentalism of Scientific Theories", forthcoming in: B. Kaldis (ed.) *Encyclopedia of Philosophy and Social Science*, Sage Publications.

- "On Some Limitations of Humean Disagreement: Religious Testimony and Contrary Religions", *Sophia* 50 (2011), 345—355.
- Review of B. van Fraassen, *Scientific Representation: Paradoxes of Perspective*, *Mind* 120 (2011), 917—921.
- "Naturalism and Method in the Philosophy of Science", in preparation, in: C. Daly (ed.) *New Waves in Philosophical Method*, Palgrave Macmillan.
- "From Logical Empiricism to Constructive Empiricism (and Back Again)", in preparation.
- "Contrastive Explanation and the Non-Classical Logic of Confirmation", in preparation.

Presentations:

- "Tolerance and Voluntarism", MCMP *Workshop on Carnap*, Munich, July 28th, 2011.
- "Tolerance and Voluntarism", Department of Philosophy, University of Otago, September 5th 2011.

Martin Fischer

## 1. Type of Affiliation with the MCMP

Martin Fischer has been working at the MCMP since January 1st 2011, at first based on a DAAD "Stipendium zur Rückgewinnung deutscher Wissenschaftler aus dem Ausland" (until May 31st 2011), then as an MCMP Visiting Fellow (funded by the MCMP, between 01/06/2011 and 31/10/2011), and finally as a Postdoctoral Fellow funded by the DFG Project "Syntactical Treatments of  Interacting Modalities" (PI: Hannes Leitgeb) since 01/11/2011.

## 2. Research Projects

In the area of axiomatic theories of truth, Martin Fischer has focused on the question of what can be achieved if one restricts oneself to a minimal, i.e. conservative, theory of truth. This led to several new formal and philosophical results on such theories. The increase of expressive power by adding the truth predicate through such theories allows for finite axiomatizations and general meta-theoretic theorems.

Another aspect Martin Fischer has been investigating is whether theories of truth have so-called "speed-up" over their base theory. Depending on the specific theory in question, one obtains get a negative or positive answer even for conservative extensions.
At the end of 2011 Martin Fischer also began to study syntactical treatments of modalities and possible interactions of modalities. Together with Johannes Stern he started to investigate inconsistencies in the case of systems with two modal predicates. They tried to answer the question in which case the inconsistency is genuinely new and in which case it is reducible to the single case. For this investigation they made use of fixed-point logics as developed by Smorynski.

### 3. Academic Output

Publications:

- "Deflationism and Instrumentalism", forthcoming in a Springer volume on *Truth*.
- "The Expressive Power of Truth" (with L. Horsten), under review.
- "Truth and Speed-up", in preparation.
- Entry for an encyclopedia on "Wahrheit" (with V. Halbach), forthcoming in *Lexikon der Erkenntnis*.
- Book review of "The Tarskian Turn" by Leon Horsten, forthcoming in the *Bulletin of Symbolic Logic*.

Presentations:

- "Interacting Modal Predicates", MCMP *Workshop on Modalities*, Munich 05/06/2011.
- "Interaction and Inconsistency of Modal Predicates" (with Johannes Stern) as part of a group presentation in the MCMP *Workshop in Mathematical Philosophy*, DGPhil, Munich, 15/09/2011.
- "Truth: Expressivity and Minimality", *Axiomatic Theories of Truth* Conference, Oxford, 20/09/2011.

Further activities:

- Organizer of a reading group on "Axiomatic Theories of Truth", first half of 2011.
- Preparations for (and co-organizer of) an MCMP *Workshop on Axiomatic versus Semantic Truth* (with Julien Murzi, also MCMP), March 2012. (Martin Fischer and Julien Murzi had applied to the Thyssen-Stiftung for additional support of the conference, but their application got rejected.)


Mathias Frisch

### 1. Type of Affiliation with the MCMP

Professor Mathias Frisch (Maryland, USA) stayed at the MCMP (invited jointly with Professor Moulines, who holds the chair in philosophy of science at LMU) from Sept. 1st, 2011 through December 31st, 2011, funded by an Alexander von Humboldt Fellowship for experienced researchers (with supplemental funding from the University of Maryland).

### 2. Research Projects

The main focus of my research in this period was on the role of causal reasoning in physics. I also did research on the use of integrated assessment models in predicting the economic effects of climate change.

**3. Academic Output**

Publications:

- Book under contract and currently in preparation (with Dec. 2012 completion date): *Causal Reasoning in Physics* (under contract with Cambridge University Press).
- "Statistical mechanics and the asymmetry of causal influence", in: Barry Loewer, Eric Winsberg, and Brad Weslake (eds.), *David Albert's Time and Chance*, Harvard: Harvard University Press (forthcoming).
- "Time and Causation", in: Heather Dykes and Adrian Bardon (eds.), *A Companion to the Philosophy of Time*, Oxford: Wiley-Blackwell (forthcoming 2012).
- "No Place for Causes? Causal Skepticism in Physics", *European Journal for Philosophy of Science* (forthcoming 2012) doi: 10.1007/s13194-011-0044-4.
- "Climate Change (In-)Justice" (under review).

Presentations:

- "Kausalität und Entropie", Philosophie der Physik Workshop, Munich, September 2011.
- "Another Look at the Arrow of Radiation", EPSA 3, Athens, Greece, October 2011.
- "Pragmatismus und naturwissenschaftliche Repräsentationen", Universität Bonn, Dezember 2011.
- "Zeitpfeil und Kausalasymmetrie", Universität Bonn, Dezember 2011.
- "Zeitpfeil und Kausalasymmetrie", Universität Konstanz Dezember 2011.


Norbert Gratzl

**1. Type of Affiliation with the MCMP**

Norbert Gratzl has been working here as an MCMP Postdoctoral Fellow (funded by the MCMP) since January 1st, 2011.

**2. Research Projects**

Norbert Gratzl's research focused on: (i) definite, and (ii) indefinite descriptions, (iii) deontic logic, and (iv) validity logic. He began to work on the theory of definite descriptions as developed by Bertrand Russell in the *Principia Mathematica*. Soon he discovered that there was a serious logical defect in this famous piece of work: it is not hard to prove an inconsistency in Russell's theory if the logical principles in question are viewed as *axioms*. Norbert Gratzl proposed a solution to this logical problem by restricting the theory and allowing only special instances (i.e. *positive* formulas) of the problematic axiom. There is a nice Hilbert-style axiomatic system for this new theory of definite descriptions. However, given his proof-theoretic interests, it would have been even nicer to give a sequent calculus formulation of this theory that would allow for cut-elimination. But there is still a problem that needed to be solved: Russell also proposed an account of indefinite (or ambiguous) descriptions. Again, it was not hard to prove this theory inconsistent. A paper on this (including a single-sided sequent calculus that allows for cut-

elimination) is now in its final stages of preparation.

Deontic logic is another research interest of Norbert Gratzl. It is a notorious problem that most deontic logics suffer from (so-called) deontic paradoxes. (MCMP member) Olivier Roy began to work on a new deontic logic that is devoid of the known paradoxes and which has interesting deontic principles. The two of them presented first results of their joint research at the SOPHIA meeting in Salzburg in 2011. Later on, A. Anglberger (now also an MCMP member) joined their research team. By the end of 2011, we obtained some publishable results on our deontic logic in which obligation is seen, in a sense, as weak(est) permission.

Jeff Ketland (also MCMP) recently published a paper on validity logic. His paper is the starting point of Norbert Gratzl's and Jeff Ketland's joint research on further logical investigations on this theme. In their new paper they focus first on a logic (on the first order level) with an additional validity predicate. They have already established some proof-theoretic results on this system. The next step consists in adding so-called Robinson arithmetic to their system of V-logic. They think that V-logic does not conservatively extend Robinson arithmetic, and they are currently working on a proof of this claim.

Norbert Gratzl also did some work on Quine's account of definite description (a paper is currently in preparation) and on Hilbert and Bernays' original approach to definite descriptions. (A part of this work is in press.)

## 3. Academic Output

Publications:

- "A Schütte-Style Free Logic", in: *Social Sciences and Humanities – Applications and Theories 1*, InTech Open Access-book.
- "Hilbert-Bernays of Definite Descriptions", in: *Philosophia Christiana*.
- "Quine on Singular Terms", in preparation.
- "V-Logic" (with J. Ketland), in preparation.
- "You Ought to Do Something!" (with O. Roy, A. Anglberger), in preparation
- "Second Thoughts on Principia Mathematica *14", in preparation.
- "Ambiguous Descriptions", in preparation.

Presentations:

- "Theorie ästhetischer Objekte", LMU Munich, 02/02/2011.
- "Sequent Calculi with Definite and Indefinite Descriptions", *Gentzen Systems and Beyond '11*, Bern, 04/07/2011.
- "Deontic Logic, Deontic Paradoxes (and Rationality)" (with O. Roy), *SOPHIA*, Salzburg, 09/09/2011.
- "Introduction to Some Problems with Definite and Indefinite Descriptions", part of the group presentation at the MCMP *Workshop in Mathematical Philosophy*, 14/09/2011.
- "Some Problems of Russell's Theory of Definite Descriptions - and a Way Out", *Science versus Utopia - Limits of Scientific Cognition*, Warsaw, September 2011.

Further activities:

- Preperatory work for the MCMP *Workshop on Formal Ethics* in autumn 2012.

Ole Hjortland

## 1. Type of Affiliation with the MCMP

Ole Hjortland has been an MCMP Postdoctoral Fellow (funded by the MCMP) since 01/01/2011.

## 2. Research Projects

Ole Hjortland's research covers a range of topics in the philosophy of logic, with a special emphasis on formal methods. He has a paper forthcoming in the *Australasian Journal of Philosophy* in which he develops a formal framework for logical pluralism without verbal dispute. He is editing a milestone volume for the St Andrews (UK) Arché project on the *Foundations of Logical Consequence* with Colin Caret. The volume is under review with *Oxford University Press*. Finally, he has three further papers under review on substructural logic, proof theoretic harmony, and logical inferentialism and norms for speech acts, respectively.

Since moving to the MCMP Ole Hjortland has also started working on a number of new projects. He is developing a solution to the Liar and Curry Paradoxes in a non-classical theory for (unrestricted) truth, in particular a so-called contraction-free system. In connection with this, he is organizing and speaking at a three-day conference entitled *Paradox and Logical Revision* that will take place in July 2012. Moreover, he is working on the question of the significance of experimental data from the psychology of reasoning for debates in the philosophy of logic. The initial part of this project is a paper replying to Timothy Williamson's application of psychology research in an argument against logical inferentialism. This paper was presented at a workshop on *The Roots of Deduction* in Groningen last year. Next he hopes to start up cross-disciplinary collaboration with experimental psychologists to devise experiments of value to the philosophy of logic.

Formal epistemology has also become one of his central research interests. He is preparing (with Olivier Roy at the MCMP) an invited contribution to a conference on epistemic logic that will take place in Prague in June. They develop non-classical model-theoretic frameworks for epistemic modalities. He is currently co-organizing (with, amongst others, Branden Fitelson from Rutgers, who is an MCMP Visiting Professor) the *9th Formal Epistemology Workshop* (FEW'9) which will take place in Munich in May. The event will involve a special session on the connection between rationality and logic. This is also the topic of one of Ole Hjortland's work-in-progress papers, in which he discusses the connections between a Bayesian view of rationality – as probabilistic constraints on degrees of belief – and the normative nature of validity in deductive logic.

## 3. Academic Output

Publications:

- "Logical Pluralism, Meaning Variance, and Verbal Disputes", forthcoming in the *Australasian Journal of Philosophy*.
- *The Foundations of Logical Consequence* (co-edited with C. Caret), collection of papers on the philosophy of logical consequence, under review. Contributors: JC Beall, Michael Glanzberg, Hartry Field, Vann McGee, Graham Priest, Stephen Read, Greg Restall, Dave Ripley, Stewart Shapiro, Robert Williams, Elia Zardini.
- "Thrice Denied: Speech Acts, Categoricity, and the Meaning of Logical Connectives", under review.
- "Proof Theoretic Semantics in the Substructural Era", under review.
- "Normalization and Harmony: To Lie Like A Bullet", under review.
- "Introduction to The Foundations of Logical Consequence volume" (with Colin Caret), under review.
- "Probabilist Accounts of Validity", in preparation, invited contribution to a special issue of *Logique et Analyse*, edited by Julien Murzi.
- "Categoricity and Conservativeness" (with J. Murzi), in preparation, invited contribution to a volume on *Logical Inferentialism*, edited by Neil Tennant and Florian Steinberger.
- "On General Elimination Harmony and Normalization" (with J. Murzi), in preparation, contribution to a *Festschrift* volume in honour of Prof. Stephen Read. The book is under contract with College Publications.
- "Logical Inferentialism and the Psychology of Reasoning", manuscript.
- "Truth, Paracompleteness, and Substructural Logic", manuscript.

Presentations:

- "Proof-Theoretic Semantics in the Substructural Era", *European Congress of Analytic Philosophy* (EPAC7), Milan, September 2011.
- "Proof-Theoretic Semantics in the Substructural Era", *11th Congress for Logic, Methdology, and Philosophy of Science* (CLMPS'11), Nancy, July 2011.
- "The Empirical Presuppositions of Logical Inferentialism", *Workshop on The Roots of Deduction*, Groningen. December 2011.
- "Normalization and Harmony: To Lie Like A Bullet", Northern Institute of Philosophy Seminar, Aberdeen, November 2011.
- "Normalization and Harmony: To Lie Like A Bullet", Arche Center, St Andrews, November 2011.
- "Paradox and Contraction: Half as Lovely, Twice as True", *5th FLC Workshop*, Arche Center, St Andrews, April 2011.
- "Normalization and Consistency", part of a group presentation at the MCMP *Workshop in Mathematical Philosophy*, Munich, September 2011.
- "On Revising Logics", MCMP Workshop *MCMP Meets the Hegelians*, Munich, April 2011.

Further activities:

- Co-organizer of MCMP *Workshop on Paradox and Revision of Logic*.
- Co-organizer of *9th Formal Epistemology Workshop* (FEW'9) in Munch.
- Successful application to the DFG for €12 000 in support of the MCMP *Workshop on Paradox and Logical Revision*.
- Member of the editorial panel for the Northern Institute of Philosophy journal *Thought*.
- Administration of the MCMP blog *M-Phi* and the MCMP Facebook page.


Andreas Kapsner

## 1. Type of Affiliation with the MCMP

Andreas Kapsner (nee Pietz) has been a visiting scholar at the MCMP since September 2011. From December 2011 he has been supported in terms of a visiting fellowship funded by the MCMP.

## 2. Research Projects

In the latter half of 2011, Andreas Kapsner started to develop some material from his doctoral thesis (defended in June 2011 at the University of Barcelona) into a form fit for publication. Aside from that, he investigated the intuitions behind the so-called connexive logics. He came to the conclusion that the natural thought that a proposition should never imply its negation is not, as advertised, captured by the connexive axioms, and instead he formulated a stronger requirement. He has also been engaged in some historical investigations on Karl Popper's early work in logic (preparatory work for a grant proposal which he submitted to the Fritz Thyssen Stiftung in early 2012). Lastly, he has been thinking about ways in which academic institutions and media production companies can collaborate to their mutual benefit, which involved preparations for a future project on films in which mathematical philosophy might be presented to a general audience.

## 3. Academic Output

Publications:

- Monograph based on his PhD thesis, currently under consideration for publication with Springer in their "Trends in Logic" series.
- "Strong Connexivity", under review.
- "Wissensvermittlung und transmediales Geschichtenerzählen" (with A. Herrmann), forthcoming  in: by J. Munoz Morcillo (ed.), *Inside Science*.

Presentations:

- "Not Quite Intuitionism", *XXII. Kongress für Philosophie* (DGPhil), Munich, September 2011.

<u>Jeff Ketland:</u>

## 1. Type of Affiliation with the MCMP

Jeff Ketland has been an Assistant Professor in Mathematical Philosophy and Associate Director at the MCMP since February 2011 (funded by the MCMP).

## 2. Research Projects

In March 2011, Jeff Ketland completed a paper, "Nominalistic Adequacy", which had been given as a talk in January 2011 in London and Oxford, and later appeared in the *Proceedings of the Aristotelian Society*. Throughout the year, he worked on a long-term book project, *Mathematical Methods in Philosophy* (initiated in early 2010). In October 2011, he wrote an article titled "Validity as a Primitive" (12 pages), which is due to appear in *Analysis* (2012). In addition, he worked on two articles, "Speed-Up and Indispensability" (given as a talk at MCMP in May 2011 and in Paris in June 2011) and "Deflationism and Representationalism" (given as a talk at a conference on truth held at Vienna, and at a conference on truth held at LMU in March 2012).

## 3. Academic Output

Publications:

- "Nominalistic Adequacy", *Proceedings of the Aristotelian Society*, Vol. 111, Issue 2.2 (2011), 201—17.
- "Validity as a Primitive", forthcoming in *Analysis*.
- *Mathematical Methods in Philosophy* (monograph), in preparation.
- "Speed-Up and Indispensability", in preparation.
- "Deflationism and Representationalism", in preparation.
- "On Leibniz Equivalence", in preparation.

Presentations:

- "Identity and Indiscernibility", *Philosophy and Model Theory Seminar*, Birkbeck College, University of London, November 2011.
- "Speed-Up and Indispensability", *Proof Theory and Philosophy of Mathematics Seminar*, Paris, June 2011.

Further Activities:

- Creating and running the MCMP M-Phi blog.

Johannes Korbmacher

## 1. Type of Affiliation with the MCMP

Johannes Korbmacher has been an MCMP Doctoral Fellow (funded by the MCMP) since September 2011.

## 2. Research Projects

In the period from September 1st to December 31st Johannes Korbmacher worked mainly on his doctoral research project tentatively titled *The Non-Contingency of Mathematics. Toward a Unified Platonist Treatment of Essence and Modality in Mathematics*. In this context he mainly focused on developing a formally adequate account of essential properties understood as defining properties of things. From this work resulted a talk that will be entitled "Essence and Identity. A Note on Essential Properties and Criteria of Identity," which has been accepted for presentation at the GAP8 conference, taking place September 17-20th 2012 in Konstanz. Furthermore, in the same period of time, Johannes Korbmacher also completed eleven entries that are forthcoming in issue 15 of the *Wörterbuch zur Sprach- und Kommunikationswissenschaft* on philosophy of language (Sprachphilosophie) edited by C. Demmerling and P. Stekeler-Weithofer.

Before his PhD fellowship started officially at the MCMP, Johannes Korbmacher attended the *Summer School in Set Theory and Higher-Order Logic* that was co-organized by the MCMP at Birkbeck College, London, from August 1-6th 2011. His attendance to this summer school was funded by the MCMP and added greatly to the refinement of his doctoral research project.

## 3. Academic Output

Publications:

- Eleven entries forthcoming in issue 15 of the *Wörterbuch zur Sprach- und Kommunikationswissenschaft* on philosophy of language (Sprachphilosophie) edited by C. Demmerling and P. Stekeler-Weithofer.


Hans-Christoph Kotzsch

## 1. Type of Affiliation with the MCMP

Hans-Christoph Kotzsch has been an MCMP Doctoral Fellow (funded by the MCMP) since September 2011.

## 2. Research Projects

Hans-Christoph Kotzsch has been working on his PhD thesis which will be on: Categorical Logic, Type Theory, Topos Theory, Category Theory in the Philosophy of Mathematics and Philosophy of Logic.

**3. Academic Output**

Presentations:

- Presentation of his PhD thesis research project, *1st Munich-Bristol Workshop*, September 22nd 2012.

Further Activities:

- Organizer of a Reading Group on Category Theory.

Hannes Leitgeb

**1. Type of Affiliation with the MCMP**

Hannes Leitgeb has taken up the Chair in Logic and Philosophy of Language at LMU Munich in October 2010. At the same time he established the MCMP at LMU.

**2. Research Projects**

First of all, Hannes Leitgeb has two papers under review which he wrote mainly in 2011, that is, "Reducing Belief Simpliciter to Degrees of Belief", and "A New Lottery Paradox for Counterfactuals". He has been working on two further articles (one titled "The Lockean Thesis Revisited", the other one "A Joint Theory of Belief and Degrees of Belief") which he intends to submit in 2012. Once this has been done, he wants to turn the extended and supplemented versions of these papers into a monograph that is provisionally titled *A Joint Theory of Belief and Degrees of Belief.* He plans to submit the resulting book to Oxford University Press.

Secondly, Hannes Leitgeb has written and finished some new papers in 2011: "Metacognition and Indicative Conditionals: A Précis", forthcoming in a volume on *Metacognition*, edited by J. Proust, Oxford: Oxford University Press. "Neural Network Models of Conditionals", forthcoming in the *Formal Philosophy Handbook*, edited by V. Hendricks. "From Type-Free Truth to Type-Free Probability", forthcomng in: G. Restall and G. Russell (eds.), *New Waves in Philosophical Logic*, New York: Palgrave Macmillan. "Abstraction Grounded. A Note on Abstraction and Truth", forthcoming in a volume on *Abstractionism in Mathematics* edited by P. Ebert and M. Rossberg.

Thirdly, he is writing a textbook on logic for philosophers in German (with A. Hieke): *Logik für Philosophen: Eine Einführung in die klassische Aussagen- und Prädikatenlogik*, which is already in a very substantive draft version (243pp, at present).

Fourthly, Hannes Leitgeb has been working on some further papers, including "A Defense of Logicism" (with E. Zalta from Stanford), "A Theory of Propositions and Truth" (with P. Welch from Bristol), and "Deriving the Excluded Middle".

## 3. Academic Output

Publications:

- "Reducing Belief Simpliciter to Degrees of Belief", under review (written in 2011).
- "A New Lottery Paradox for Counterfactuals", under review (written in 2011 and 2012).
- "Revision Revisited" (with L. Horsten, G. Leigh, P. Welch), forthcoming in the *Review of Symbolic Logic*.
- "How Serious is the Paradox of Serious Possibility?" (with S. Duca), forthcoming in *Mind*.
- "Criteria of Identity, Strong and Wrong", forthcoming in the *British Journal for the Philosophy of Science*.
- "Metacognition and Indicative Conditionals: A Précis", forthcoming in a volume on *Metacognition*, edited by J. Proust, Oxford: Oxford University Press.
- "Neural Network Models of Conditionals", forthcoming in the *Formal Philosophy Handbook*, edited by V. Hendricks.
- "From Type-Free Truth to Type-Free Probability", forthcomng in: G. Restall and G. Russell (eds.), *New Waves in Philosophical Logic*, New York: Palgrave Macmillan.
- "Abstraction Grounded. A Note on Abstraction and Truth", forthcoming in a volume on *Abstractionism in Mathematics* edited by P. Ebert and M. Rossberg.
- "A Probabilistic Semantics for Counterfactuals. Part B", *Review of Symbolic Logic* 5 (2012), 85—121. (This paper got revised in 2011.)
- "A Probabilistic Semantics for Counterfactuals. Part A", *Review of Symbolic Logic* 5 (2012), 16—84. (This paper got revised in 2011.)
- "God – Moore = Ramsey. (A Reply to Chalmers and Hàjek)", *Topoi* 30/1 (2011), 47—51.
- "New Life for Carnap's *Aufbau*?", *Synthese* 180/2 (2011), 265—299.
- "Logic in General Philosophy of Science: Old Things and New Things", *Synthese* (2011) 179/2, 339—350.
- "Eine außergewöhnliche Kombination!", *Widerspruch –Münchner Zeitschrift für Philosophie* 53(2011), 123—127.
- "Mechanizing Induction" (with R. Ortner), in: D. Gabbay, S. Hartmann, and J. Woods (eds.), *Handbook of the History of Logic*, Vol. 10: *Inductive Logic*, Oxford: North Holland (Elsevier), 2011, 719—772.
- *A Joint Theory of Belief and Degrees of Belief*, in preparation.
- *Logik für Philosophen: Eine Einführung in die klassische Aussagen- und Prädikatenlogik*, in preparation (243pp, at present).

Presentations:

- "The Lockean Thesis Revisited", Workshop within the *Philosophy and Semantics in Europe Conference*, Bochum (01/10/11).
- "From the Lockean Thesis to Conditionals", *Philosophy of Language and Mind Conference*, Stockholm (17/09/11).
- "Groundedness in Set Theory and Semantics" (with L. Incurvati), *Summer School on Set Theory and Higher-Order Logic*, London (04/08/11).

- "Probabilities, Conditionals, Laws", *14th Congress of Logic, Methodology and Philosophy of Science*, Nancy (22/07/11).
- "The Logic of Belief: Qualitative vs. Quantitative'', *Logic Colloquium 2011*, European Summer Meeting of the Association for Symbolic Logic, Barcelona (12/07/11).
- "A Theory of Propositions and Truth", Department of Philosophy, Hebrew University of Jerusalem (20/06/11).
- "The Lockean Thesis Revisited", Department of Philosophy, Hebrew University of Jerusalem (19/06/11).
- "The Lockean Thesis Revisited", MCMP *Workshop on Bayesian Methods in Philosophy*, Munich (15/06/11).
- "A Theory of Propositions and Truth", *Philosophy of Mathematics Seminar*, Oxford (30/05/11).
- "From the Lockean Thesis to Conditionals", Workshop on *Conditionals, Counterfactuals and Causes in Uncertain Environments*, Düsseldorf (21/05/11).
- "Advertising Mathematical Philosophy", *CoTeSys* Workshop, Munich (29/04/11).
- "A Theory of Truth for Propositions", Department of Philosophy, University of Vienna (07/04/11).
- "A Theory of Propositions and Truth", *Truth Conference*, Amsterdam (24/03/11).
- "The Lockean Thesis Revisited", Department of Philosophy, Carnegie Mellon University, Pittsburgh (17/03/11).
- "A Theory of Propositions and Truth", Department of Philosophy, Carnegie Mellon University, Pittsburgh (16/03/11).
- "Algebraic and Probabilistic Structures in Epistemology", *Arbeitstagung Allgemeine Algebra* (AAA81)}, Salzburg (04/02/11).

Further activities:

- In 2011 it was announced that H. Leitgeb's Article "An Objective Justification of Bayesianism II" (with R. Pettigrew) was chosen for the *Philosopher's Annual Vol. 30* that is meant to include the 10 best papers in philosophy in 2010 worldwide.
- Editor-in-Chief of *Erkenntnis*.
- Editor of *Review of Symbolic Logic*.
- Member of the Editorial Board of the *European Journal for the Philosophy of Science*.
- Member of the Editorial Board of the *Grazer Philosophical Studies*.
- Consulting Editor of *Journal of Philosophical Logic*.
- Consulting Editor of *Theoria*.
- Managing Editor of *Studia Logica* (until 30/11/11), Associate Editor of *Studia Logica* (from 01/12/11).
- Subject Editor of the *Stanford Encyclopedia of Philosophy* for Philosophy of Mathematics.
- Member of the Editorial Board of *PHIBOOK: The Yearbook of Philosophical Logic*, Automatic Press.
- Member of the Editorial Board of *The Collected Works of Rudolf Carnap* (Open Court).
- Member of Scientific Board of *Munich Graduate School of Systemic Neurosciences* (GSN) (since October 2011).

- Member of Steering Committee of *Munich Center for Neurosciences* (MCN) (since May 2011).
- Member of *Center for Advanced Studies*, Ludwig-Maximilians-University Munich (since April 2011).
- Forschungsdekan (Dean of Research) of the Faculty of Philosophy, Philosophy of Science and Study of Religion, LMU Munich.
- Member of the ESF Project *The Philosophy of Science in a European Perspective*, team A.
- Member of the ESF Network *INFTY* on Set Theory.
- Member of the DFG International Network *Philosophy of Mathematics: Sociological Aspects and Mathematical Practice*.
- External Assessor for Professorial Appointments or Promotions at: University of Groningen, University of Toronto, University of Missouri – St. Louis, University of Leeds (all 2011).
- Member of Panels and Advisory Boards for: Workshop *Strategies for Learning, Belief Revision and Preference Change*, ESSLLI 2012, Opole, Poland. Association for Symbolic Logic, Committee for Prizes and Awards. *11th Trends in Logic Conference*, Bochum, 2012. *GAP 8*, Conference of the German Society for Analytic Philosophy, Konstanz 2012, Section on *Logic and Philosophy of Science. Classical Model of Science II*, Amsterdam 2011. Programme advisor for the *14th International Congress of Logic, Methodology and Philosophy of Science*, Section Philosophical Logic, Nancy, 2011.
- PI of the DFG Project *Syntactic Approaches to Interacting Modalities* (from 2011, EUR 414,450 for three years).
- Interview, *Humboldt Kosmos* 98/2011 (supplement to the *Zeit* and the *Frankfurter Allgemeine Sonntagszeitung*).
- Interview, *Salzburger Uni-Nachrichten*, October 2011.
- Interview, *LMU Forschungsmagazin Einsichten*, 2011.
- Interview on "Paradoxien und Unsinn", Bayrischer Rundfunk, 2011.
- Interview, Radio Salzburg, 2011.


Thomas Meier

**1. Type of Affiliation with the MCMP**

Thomas Meier has been a Doctoral Fellow at the MCMP (funded by the MCMP) since September 2011. Before that time he was already giving German language lessons to the non-German-speaking members of our center.

**2. Research Projects**

Since September 2011, Thomas Meier has been working on his doctoral thesis. In the first part of his thesis, he is studying how to apply the formal framework of structuralism in the philosophy of language to the present discussion on structural realism in the philosophy of science. The second step deals with a specific case study, that is, some prominent theories from linguistics.

**3. Academic Output**

Presentations:

- "An Investigation of Structural Realism from the Point of View of the Semantic Conception of Theories - Theory-Change in Linguistics as an Exemplar Case", part of the MCMP group presentation at the *German Congress of Philosophy* (DGPhil), September 13th, 2011.
- "Structural Realism in Linguistics", MCMP *1st Bristol-Munich Workshop*, Munich, September 23rd, 2011.
- In October 2011, Thomas Meier's submission for a talk on „Structural Realism as an Epistemology for Structuralism" was accepted for the international conference Perspectives on Structuralism, which took place later at the *Center for Advanced Studies* of the LMU in February 2012.
- In November 2011, Thomas Meier submitted a paper to an international and highly prestigious conference on the history of the philosophy of science, *HOPOS 2012.* His submission was accepted, so he will be able to give a talk there. The conference will take place at Halifax, Canada, from June 21st to June 24th, 2012. The title of his paper will be: "From Carnap via Kuhn to Stegmüller – The Development of Structuralist Philosophy of Science".

Further activities:

- Since September 2011, Thomas Meier has been a member of the organizing committee of the Workshop *Decision, Games and Logic* (DGL) *2012*, which will take place at the MCMP in July 2012.
- With the perspective of being a member of the MCMP and also member of the organization committee of the workshop DGL 2012, Thomas Meier I assisted at the workshop DGL 2011, which took place at Maastricht, Netherlands, in July 2011.
- In October 2011, Thomas Meier was invited to the Universidad Autónoma de Zacatecas, Mexico, to teach a course on Structuralism and Naturalism in the Philosophy of Science. The course was given at the Faculty of Philosophy of this University. The original title of the course was: "Realismo estructural, metateoría estructuralista y naturalismo".
- Since September 2011 Thomas Meier has also been the editorial assistant of the journal *Erkenntnis* (which is based at our center, too).

Christopher Menzel

**1. Type of Affiliation with the MCMP**

Professor Christopher Menzel (Texas A&M) was a Visting Fellow at the MCMP from 1 Sep to 31 Dec 2012. He was funded (at half salary) by a research development leave from my home institution, Texas A&M University, and was also supported by a 500€ per month stipend from the MCMP.

## 2. Research Projects

Because Professor Menzel was able to concentrate on his research free of the obligations of teaching and administration and situated in the stimulating congenial environment of the MCMP, this period was quite productive for him. Most important was the completion of a major project — a long (over 20,000 word) entry for the *Stanford Encyclopedia of Philosophy*, a highly vetted online encyclopedia that is widely considered to be the definitive reference work in philosophy. (Professor Menzel had drafted perhaps half of this piece prior to his arrival, but it required a great deal more research and writing to complete.) The topic of the entry is "Possible Worlds", a notion that lies at the heart of most contemporary research in the logic and philosophy of *modality*. This topic concerns a cluster of concepts — necessity, possibility, contingency, essence, etc. — that are fundamental to our understanding of a vast range of issues across many disciplines, from ethics and the law to modern physics.

In addition to this project, Professor Menzel was able to author one paper (now published) and to co-author two others (currently under review). The topics of these papers concern more specific issues in the logic and philosophy of modality. Finally, He wrote the bulk of two other papers that he will complete in the next month or two. One of these proposes revisions to the most widely used theory of sets that address a certain philosophical limitation in the theory. The other paper motivates and defines an alternative framework for standard predicate logic that reflects changes to its traditional syntax and semantics. This framework provides a formal and philosophical foundation for an international standard for a family of logical languages ("Common Logic", ISO/IEC 24707) that was motivated by issues arising from the actual use of logic for representing information on large, open networks like the World Wide Web.

## 3. Academic Output

Publications:

- "Possible Worlds", forthcoming in the *Stanford Encyclopedia of Philosophy*. (The entry is currently undergoing revisions in light of comments from reviewers and editors and will be appearing online in the next month or so.)
- "Sets and Worlds Again", *Analysis* 72/2 (2012), 304–309.
- "Avoiding Russell-Kaplan Paradoxes: Worlds and Propositions Set Free" (with Edward Zalta and Otávio Bueno, currently under review at a major journal.
- "The Fundamental Theorem of World Theory" (with Edward Zalta), currently under review at a major journal.
- "Wide Sets, ZFU, and the Iterative Conception", draft, written mostly at MCMP in the fall and nearly complete.
- "Metatheory and Motivations for ISO Common Logic", draft, written mostly at MCMP in the fall and nearly complete.

Julien Murzi

## 1. Type of Affiliation with the MCMP

Julien Murzi held an MCMP Postdoctoral Fellowship during the whole period January 1st, 2011 to December 31st, 2011.

## 2. Research Projects

Julien Murzi's research during 2011 mainly focused on three main areas: validity paradoxes, logical inferentialism, and the realism/anti-realism debate. In his work on validity paradoxes, he explored the view that paradoxes concerning the concept of logical validity are genuine semantic paradoxes, and he further argued that, if paradoxes call for a revision of logic, then such a revision must be quite radical, i.e. it must affect the structure of the consequence relation. He defended these theses in a paper, 'Validity Curry', which he presented at a number of conferences and workshops and which he finally submitted to *Mind* in October 2011. He also proved the inexpressibility of some validity notions, pretty much along the lines of Tarski's indefinability and inexpressibility results for truth, and drafted a paper on validity and truth-preservation, which is forthcoming in a Springer volume on truth, in 2012. Relatedly, he began to edit, together with Massimiliano Carrara (Padoa), a special issue of *Topoi* on Paradox and logical revision. The issue, which is forthcoming in 2014, will include, amongst others, papers by Alan Weir, Dave Ripley, Greg Restall, Michael Glanzberg, Crispin Wright, Ole Hjortland, Elia Zardini, and myself. Finally, Julien Murzi and Jc Beall published a joint article on validity paradoxes in the *Journal of Philosophy*, which they had partially written and prepared in 2011 as well.

Julien Murzi's work on logical inferentialism focused on classical harmony and separability and dispositionalist accounts of understanding. Concerning the first topic, he discovered a harmonious and separable single-conclusion formalisation of classical logic, and he proved normalisation and subformula properties for it. Concerning the second, together with his colleague Florian Steinberger, he worked on dispositionalist accounts of our understanding of the logical vocabulary. This resulted in a paper that was submitted to *Philosophical Studies* in November 2011. Relatedly, he also started editing, with Massimiliano Carrara, a special issue of *Logique et Analyse* on Logical Consequence, to which he is also contributing. Other contributors include Gil Sagi, Ole Hjortland, Massimiliano Carrara, Enrico Martino, Silvia Gaio, Pierdaniele Giarretta, Marcello D'Agostino and myself.

Finally, Julien Murzi's work on the realism/anti-realism debate focused on the topics of manifestability and decidability. He wrote a paper on the subject in May, which was published in *Topoi* in February 2012.

## 3. Academic Output

Publications:

- "Two Flavors of Curry's Paradox" (with Jc Beall), forthcoming in the *Journal of Philosophy*.

- "Coming True: A Note on Truth and Actuality" (with Richard Dietz), forthcoming in *Philosophical Studies.*
- "Manifestability and Decidability", forthcoming in *Topoi.*
- "Validity Curry", submitted to *Mind* in October 2011.
- "Is Knowledge of Logic Dispositional" (with Florian Steinberger), submitted to *Philosophical Studies* in November 2011.
- "Validity and Truth-Preservation", in preparation, forthcoming in a Springer volume on truth in 2012.
- "Stability", in preparation, forthcoming in a volume on the occasion of Stephen Read's retirement.
- "Field on Validity", in preparation, forthcoming in *Logique et Analyse* (2013).
- "The Logic of Indefinite Extensibility", in preparation, forthcoming in *Topoi* (2014).

Presentations:

- "Validity Curry", Arche Workshop *Paradox and Logical Revision*, St Andrews, April 2011.
- "Validity Curry", Conference *Paradoxes of Truth and Denotation*, LOGOS, Barcelona, June 2011.
- "Validity Curry", Joint Session (Mind & Aristotelian Society), Brighton, July 2011.
- "Validity Curry", *Proof Theory, Meaning and Paradoxes*, Contributed Symposium (co-organizers: Ole T. Hjortland and Luca Tranchini), *14th Congress of Logic, Methodology and Philosophy of Science*, Nancy, July 2011.
- "Logic and Paradox", part of a group presentation at the MCMP *Workshop in Mathematical Philosophy*, Munich, September 2011.
- "Validity Curry", MCMP *1st Bristol-Munich Workshop*, Munich, September 2011.

Further Activities:

- Julien Murzi interviewed for a permanent lectureship in Philosophy at the University of Kent in February 2011. He was offered the job, and he accepted it. (He took up his permanent position there in 2012.)
- He co-organized two major international conferences: *Axiomatic vs Semantic Truth* (Munich, March 14-16, 2012, with Martin Fischer, https://sites.google.com/site/mcmpaxiomatic/) and, forthcoming, *Paradox and Logical Revision* (Munich, July 23-5, 2012, with Ole T. Hjortland, https://sites.google.com/site/mcmpparadox2012/home). He co-applied for external funding for both conferences. The first one was partly sponsored by the Carl-Friedrich-von-Siemens Stiftung, which provided accommodation and catering free of cost.  For the second conference, they applied to the DFG, which generously awarded them EUR 12.000.

Niki Pfeifer

## 1. Type of Affiliation with the MCMP

Niki Pfeifer worked as an MCMP Postdoctoral Fellow (fundd by the MCMP) during the whole year 2011. Moreover, he is a research associate at the Tilburg Center for Logic and Philosophy of Science (The Netherlands), and his research and travelling was also supported by the Austrian Science Fund project P20209 "Mental probability logic" (Project leader: Niki Pfeifer). Finally, he was a collaborator of the "The Logic of Causal and Probabilistic Reasoning in Uncertain Environments" research network until October 2011: this research network was part of the EUROCORES programme LogICCC (initiated by the European Science Foundation) and lasted from 2008 until 2011.

## 2. Research Projects

During 2011, Niki Pfeifer worked on extending the current domain of experimental philosophy to uncertain reasoning and conditionals. Moreover he applied coherence based probability logic to philosophical problems. He worked on elaborating a new probabilistic semantics of Aristotelian syllogisms and on a measure of argument strength. Another area of Niki Pfeifer's research during 2011 includes the study of the cultural history of natural disasters.

Additionally, Niki Pfeifer prepared his second PhD in philosophy (he holds already a PhD in psychology) during 2011; he submitted his thesis in March 2012 at Tilburg university and the public defense is scheduled for September 10, 2012 at Tilburg.

## 3. Academic Output

Publications:

- "Toward an Experimental Philosophy of Uncertain Reasoning" (with I. Douven), submitted.
- *Naturalized Formal Epistemology of Uncertain Reasoning*, second PhD thesis (Tilburg Center for Logic and Philosophy of Science, Tilburg University), submitted.
- "On Argument Strength", forthcoming in: F. Zenker (ed.), *Bayesian Argumentation*, Dordrecht: Synthese Library.
- "Experiments on Aristotle's Thesis: Towards an Experimental Philosophy of Conditionals", forthcoming in *The Monist*.
- "Probabilistic Theories of Reasoning Need Pragmatics Too: Modulating Relevance in Uncertain Conditionals" (with A. J. B. Fugard, B. Mayerhofer), *Journal of Pragmatics* 43 (2011), 2034–2042.
- "How People Interpret Conditionals: Shifts Towards the Conditional Event" (with A. J. B. Fugard, B. Mayerhofer, G. D. Kleiter), *Journal of Experimental Psychology: Learning, Memory, and Cognition* 37/3 (2011) 635–648.
- "Reporting on Historical Severe Storms: Two Examples of Utrecht (1674) and Abtenau (1796)" (with K. Hauer), *Atmospheric Research* 100/4 (2011), 580–585.
- "Investigating Historical Severe Storms in Austria (1604, 1807) and England (1638)" (with K. Pfeifer), *Proceedings of the 6th European Conference on Severe*

*Storms* (ECSS 2011), extended abstract 38 (1–3), Palma de Mallorca, Balearic Islands (Spain), 2011.

- "Systematic Rationality Norms Provide Research Roadmaps and Clarity. Commentary on Elqayam & Evans: 'Subtracting "ought" from "is": Descriptivism versus Normativism in the Study of Human Thinking'", *Behavioral and Brain Sciences*, 34/5 (2011), 263–264.
- Editorial and interview with Wilfrid Hodges, *The Reasoner* 5/11 (2011), 178–183.
- "Uncertain Deductive Reasoning" (with G. D: Kleiter), in: K. Manktelow, Over, D. E., and S. Elqayam (eds.), *The Science of Reason: A Festschrift for Jonathan St B.T. Evans*, Hove, UK: Psychology Press, 145–166, 2011.

Presentations:

- "Investigating Historical Severe Storms in Austria (1604, 1807) and England (1638)" (with K. Pfeifer), *6th European Conference on Severe Storms*, ECSS 2011, Palma de Mallorca (Spain), October 2011.
- "Formal Epistemology + Psycholoy of Reasoning = Experimental Philosophy of Uncertain Reasoning" (with I. Douven), *Formal Epistemology Meets Experimental Philosophy*, Tilburg (The Netherlands), September 2011.
- "Probability and Logic in Psychology: A New Form of Psychologism?", *LogICCC Final Conference*, Berlin, September 2011.
- "Coherence Based Probability Logic: Philosophical and Psychological Applications", *The Fifth Workshop on Combining Probability and Logic* (progic2011), Columbia University, New York, September 2011.
- "Remembering Natural Disasters" (with K. Pfeifer), *Annual Conference of the International Society for Cultural History* (ISCH 2011), Oslo, August 2011.
- "Towards an Experimental Philosophy of Uncertain Reasoning", *14th Congress of Logic, Methodology, and Philosophy of Science*, Nancy, July 2011.
- "Applying Coherence Based Probability Logic to Philosophical Problems", MCMP *Workshop on Bayesian Methods in Philosophy*, Munich, June 2011.
- "Combining Formal Epistemology and the Psychology of Reasoning", Institute for Logic, Language and Computation, Amsterdam, May 2011.
- "Material Conditionals are Usually Not Assertable in Uncertain Environments", *Conditionals, Counterfactuals and Causes in Uncertain Environments*, Düsseldorf, May 2011.

Further activities:

- Niki Pfeifer received a DFG Grant Grant PF 740/2-1, funded by the Deutsche Forschungsgemeinschaft (DFG) as part of the priority program "New Frameworks of Rationality" (SPP 1516) in 2011.
- He became a member of the steering committee of the Workshop on *Combining Probability and Logic* and will be the local organizer of the 6th *Progic Workshop* in 2013 in Munich.
- During 2011, Niki Pfeifer served in the editorial board of *The Reasoner* and as a reviewer for the European Science Foundation, as well as a reviewer for the *33rd Annual Conference of the Cognitive Science Society. Austin, Texas*.

- Niki Pfeifer invited Prof. Keith Stenning (Edinburgh) to the MCMP for one week in November 2011. The purpose of that stay was discussing ongoing work in the cognitive science and psychology of reasoning; additionally, Prof. Stenning gave a talk at the MCMP.

Roland Poellinger

## 1. Type of Affiliation with the MCMP

Roland Poellinger worked as a (pre-doctoral) Assistant Professor at the LMU Chair of Logic and Philosophy of Language (Prof. Hannes Leitgeb) from January 1st to July 31st 2011; in that period of time he was already also a member of the MCMP but he paid by the universoty. From August 1st to 31 December 31st 2011 he was funded as a visiting doctoral student by the MCMP. Additionally, between October 21st – 19 December he visited the Department of Philosophy at Carnegie Mellon University (Pittsburgh, co-funded by the CMU Center for Formal Epistemology, Prof. Kevin T. Kelly) in order to do research with some of the colleagues there and also to give two presentations on his doctoral research.

## 2. Research Projects

Roland Poellinger's research project on "Concrete Causation" centers on theories of causation, their interpretation and embedding in metaphysical-ontological questions, as well as the application of such theories in the context of science and decision theory. The project is subdivided in four central aspects: (i) The historical-systematic localization of the project itself, (ii) a comparative explication of the concepts and the technical framework of the theories of David Lewis and Judea Pearl, and (iii) the extension of Pearl's formal semantics for the treatment of difficult and paradoxical cases. In this approach Pearl's mathematical-technical framework is drawn on for an epistemic interpretation and for an emphasis of the knowledge-organizing aspect of causality in a revised form of the interventionist account of causation. Integrating causal and non-causal knowledge in unified structures ultimately leads to an approach towards solving problems of (causal) decision theory and at the same time facilitates the representation of logical-mathematical, synonymic, as well as reductive relationships in efficiently structured, operational nets of belief propagation – aspect (iv) of the project, presented in applications of the system developed.

## 3. Academic Output

Publications:

- PhD Thesis: *Concrete Causation. About the Structures of Causal Knowledge.* (publication in preparation – articles and book)
    a. Submitted: September 2011
    b. Grade: *summa cum laude* (0,5)
    c. Areas of study: Causality (mathematical modeling and metaphysics), probability theory, formal epistemology, philosophy of science [summary of the thesis on http://logic.rforge.com/]

d. Video documentation of the PhD project "Concrete Causation" (with the 2010 workshop with the same title) on iTunes U: http://itunes.apple.com/de/itunes-u/id382041859

- In preparation: "The Markov Condition, Causation, and Explanation – Modeling the Einstein-Podolski-Rosen Paradox in Causal Knowledge Patterns".

Presentations:

- Comment on Stefan Ruhland: "Is Causality an Absolute Relation?" (Zu Stefan Ruhland: "Ist Kausalität eine absolute Relation?"), Workshop *Causal Worlds – Aspects of Semantics and Pragmatics in Lewis, Menzies, Pearl*, LMU Munich, January 2011.
- "Structures of Causal Knowledge" ("Strukturen kausalen Wissens"), Research Seminar on *Foundations of Statistics*, Institut für Statistik, LMU Munich, May 2011.
- "Computing Non-Causal Knowledge for Causal Reasoning", MCMP *Workshop on Computational Metaphysics*, Munich, June 2011.
- "Disentangling Nets for Causal Inference", part of a group presentation of the MCMP at XXII. *Deutscher Kongress für Philosophie* (DGPhil), Munich, September 2011.
- "Newcomb's Paradox and Its Intuitively Adequate Solution in Causal Knowledge Patterns", *Logic Seminar* Series, Philosophy Section of the School of Historical and Philosophical Studies, University of Melbourne, October 2011.
- "Reclaiming Markov in Entangled Structures of Deterministic Causal Knowledge, Part I: Epistemic Contours", *Causality Seminar* Series, Center for Formal Epistemology, Carnegie Mellon University (Pittsburgh), November 2011.
- "Reclaiming Markov in Entangled Structures of Deterministic Causal Knowledge, Part II: The Principle of Explanatory Dominance", *Causality Seminar* Series, Center for Formal Epistemology, Carnegie Mellon University (Pittsburgh), December 2011.

Further Activities:

- Organization of the research colloquium *Forum Logic – Logic, Formal Epistemology, and Philosophy of Mathematics* (Akad. Forschungskolloquium »Forum Logik«), LMU Munich, May 2010 – February 2011.
- Organization of the philosophical workshop *Causal Worlds – Aspects of Semantics and Pragmatics in Lewis, Menzies, Pearl* (Forum Logik Open Session; Patenschaft: Hans Rott, Regensburg University), LMU Munich, January 2011.
- Co-organization of the talk series *MCMP & Statistics Department* (with the Research Colloquium on Foundations of Statistics), LMU Munich, 2011/summer semester.
- Organization of the MCMP-CMU exchange with CMU's Center for Formal Epistemology: Preparation of the visit of Kevin T. Kelly and Hanti Lin to Munich, travel arrangements and guest presentations (for February 2012).
- Regular research exchange in the *Workgroup MindMapsCause on Systemic Organization, Representation, and Operation* (LMU Seminar Philosophy, Logic, and Philosophy of Science).
- In preparation: MCMP conference on *Bridge Principles in Formal Philosophy* (working title) in New York City – cooperation with the German Universities Alliance (GUA, NY) and the German Center for Research and Innovation (Deutsches Wissenschafts- und Innovationshaus, NYC); initial planning session: December 2011.

- Maintenance of the MCMP Facebook page, consulting and graphics for the official MCMP website (on lmu.de), contributions to the MCMP M-Phi blog at http://m-phi.blogspot.com.
- Technical planning, team coordination, and establishment of the video portal *MCMP on iTunes U* for the MCMP, 2010–2012; preview: http://itunes.apple.com/de/itunes-u/id439913748 (rewarded in 2011 with a personal efficiency bonus by LMU for creating suitable workflows, for organizing the infrastructure of technology and personnel, and for establishing the LMUcast network between faculty and chair, Virtuelle Hochschule LMU, and LMU in-house technical services).

Olivier Roy

## 1. Type of Affiliation with the MCMP

Olivier Roy became an Assistant Professor at the Chair of Logic and Philosophy of Language at LMU Munich from February 1st, 2011 (based on LMU funds). At the same time he also became a member of the MCMP.

## 2. Research Projects

Olivier Roy's research in the relevant period centered on the question of norms of rationality in strategic interaction. The goal of this research is to lay the ground for the development of a general, mathematically precise theory of practical rationality in social interaction, also called interactive rationality. By social interaction, we mean situations in which the result of one's decision depends also on what other decision makers do. This includes a whole array of social phenomena. Canonical examples of social interaction, such as communication, conversations, friendship or teamwork, fall into this category. But it also includes more abstract forms of interaction, like social norms and what game theorists call "games" or situations of strategic interaction. There is a relatively wide consensus that practical rationality imposes certain requirements on decision makers, that it issues certain recommendations about what rational agents should do or believe in order to be seen as rational. These requirements, furthermore, take the form of norms that prescribe or rule out certain content of attitudes, combinations of attitudes, or of attitudes and actions. My research considers requirements of rationality in social interaction: that is, prescriptions about which actions to take given some sets of attitudes, and given some coherence constraints concerning what one believes about the beliefs of others.

## 3. Academic Output

Publications:

- "Agreement Theorems in Dynamic-Epistemic Logic" (with C. Dégremont), forthcoming in the *Journal of Philosophical Logic*.
- "Epistemic Logic and the Foundations of Decision and Game Theory", in: A. Gupta and J. van Benthem (eds.) *Logic and Philosophy Today (Vol.2)*, College Publications, 301—332, 2011.

- "Review of I. Gilboa's *Rational Choice*, MIT Press, 2010", forthcoming in *Economics and Philosophy*.
- "Towards a Theory of Play: A Logical Perspective on Games and Interaction" (with J. van Benthem, E. Pacuit), *Games*, 2/1 (2011), 52—86.
- *Dynamic Formal Epistemology* (co-edited with P. Girard and M. Marion), *Synthese Library*, Vol. 351, January 2011.
- "Epistemic Foundations of Game Theory" (with E. Pacuit), forthcoming entry in the *Stanford Encyclopedia of Philosophy*.
- "A Sound and Complete Logic for Backward Induction on Finite Trees" (with K. Jobczyk, also MCMP), in preparation.
- "Characterizing Dynamic Consequences" (with O. Hjortland, also MCMP), in preparation.
- "Deontic Logic for Procedural Ethics" (with M. Rechenauer), in preparation.
- "Obligation as Weakest Permission" (with A. J. J. Anglberger, N. Gratzl, both also from the MCMP), in preparation.
- "Substantive Assumptions in Interaction: A Logical Perspective" (with Eric Pacuit).

Presentations:

- "Interactive Rationality and the Dynamics of Reasons", at the MCMP *VIU Workshop in Venice*, November 8th, 2011.
- "A Dynamic Analysis of Interactive Rationality", *Third International Workshop on Logic and Rational Interaction*, Guangzhou, China, October 12th, 2011.
- "Deontic Logic and Games", *Beijing Logic Workshop*, Tsinghua University, Beijing, October 7th, 2011.
- "Deontic Logic without Deontic Paradoxes", Symposium on Formal Ethics, *SOPHIA Workshop*, Salzburg, September 9th, 2011.
- "A Dynamic Analysis of Interactive Rationality", *Workshop on Freedom and Social Choice*, Groningen, August 18th, 2011.
- "A Dynamic Analysis of Interactive Rationality", *Beth Symposium*, Nancy, France, July 21st, 2011.
- "A Dynamic Analysis of Interactive Rationality", *Reasoning about Other Minds* Conference, Groningen, July 12th, 2011.
- "Interactive Rationality: Book Project Presentations", *Decisions, Games and Logic 2011*, Maastricht, July 10th, 2011.
- "Interactive Rationality", Special Session of the *Logic, Games and Social Choice Conference*, Bucharest, July 8th, 2011.
- "A Dynamic Analysis of Interactive Rationality", *Game Theory Day*, Konstanz, June 17th, 2011.
- "Substantive Assumptions in Interaction", *10th Paris-Amsterdam Logic Meeting of Young Researchers*, Paris, May 20th, 2011.
- "Trois variations sur le thème de la rationalité interactive", *Archives Pointcarré Lecture Series*, Nanterre, France, March 22nd, 2011.
- "Deontic Logic and Games", *Dagstuhl Seminar on Logical Modeling of Strategic Interaction*, Dagstuhl, Germany, March 8th, 2011.
- "Interactive Rationality and the Dynamics of Reasons", *2nd Social Software and Formal Epistemology Workshop*, Lund, Sweden, February 24th, 2011.

- "Substantive Assumptions in Interaction", *Copenhagen Logic Workshop*, Copenhagen, Denmark, February 22nd, 2011.
- "Interactive Rationality and the Dynamics of Reasons", Philosophy Seminar, Rotterdam, February 21st, 2011.
- "Interactive Rationality and the Dynamics of Reasons", *Ethics "Grundlesung" Seminar*, Groningen, February 17th, 2011.
- "Agreement Theorems and Deliberative Democracy", *Omstreden Democratie Workshop*, The Hague, January 27th, 2011.

Further Activities:

- Organizer of the *Third Meeting of the Rationality and Decision Research Network*, London School of Economics, June 3-4, 2011.
- *Erkenntnis* (Associate Editor).
- *Topoi* (Associate Editor).
- *Theory and Decision Library Series A* (Associate Editor).
- *Stanford Encyclopedia of Philosophy*, Section Editor for the "Logic, Computation and Agency" Section.
- Application for a DFG Emmy Noether Grant, under review.
- Application for Special Project of the Danish Humanities Research Council (together with V. Hendricks, Copenhagen), under review.

Georg Schiemer

## 1. Type of Affiliation with the MCMP

Georg Schiemer has been based at the MCMP since April 22nd 2011. During that period, he was funded externally by an *Erwin Schrödinger Fellowship* (J 3158-G17) by the Austrian Science Fund (FWF).

## 2. Research Projects

During the period in question, Georg Schiemer conducted research on his current project "Between Logicism and Metalogic - Nonlogicist Applications of Type Theory". Specifically, he worked on two articles dealing with Rudolf Carnap's early work on semantics in his unpublished manuscript "Untersuchungen zur Allgemeinen Axiomatik" which was written around 1928. Georg Schiemer completed an article (jointly written with Erich Reck from UC Riverside) on early contributions to model theory titled "Logic in the 1930s – The Nature of Model Theory". He also started to investigate Carnap's early structuralist account of mathematics, in particular his attempt to explicate restriction and completeness axioms in terms of so-called extremal structures. A first draft of the resulting paper – titled "Carnap on Extremal Axioms, Completeness of the Models, and Categoricity" was completed and submitted in 2011 as well.

**3. Academic Output**

Publications:

- "Carnap's Early Semantics", forthcoming in *Erkenntnis*.
- "Carnap's *Untersuchungen*: Logicism, Formal Axiomatics, and Metatheory", forthcoming in: R. Creath (ed.), *Rudolf Carnap and the Legacy of Logical Empiricism*, Springer, (published 2012).
- "Review of: M. Friedman and R. Creath (eds.), *The Cambridge Companion to Carnap*, Cambridge University Press, 2007", in: McGuinness, B.F. (ed.), *Friedrich Waismann - Causality and Logical Positivism*, Dordrecht: Springer, 2011, 346—349.
- "Carnap on Extremal Axioms, Completeness of the Models, and Categoricity", under review.
- "Logic in the 1930s: The Nature of Model Theory" (with Erich Reck), under review.
- "Carnap's Mathematical Structuralism", in preparation.
- "Semantics in Type Theory", in preparation.
- "Mathematical Structuralism and Invariants", in preparation.

Presentations:

- "Semantics in Type Theory", *Philosophy of Science in Europe - European Philosophy of Science and the Viennese Heritage* (VCI), Vienna, 06/12/2011.
- "Carnap on Extremal Axioms and Categoricity", MCMP *Workshop on Carnap*, Munich, 28/07/11.
- "Semantics in Type Theory", *14th Congress of Logic, Methodology, and Philosophy of Science*, Nancy, 23/07/11.
- "Carnap, Tarski und fruehe Modelltheorie", *Crossing Borders*, *9. Kongress der Österreichischen Gesellschaft fuer Philosophie,* Vienna, 03/06/11.

Further activities:

- Georg Schiemer gave a radio interview titled "Rudolf Carnap's logisch-mathematische Studien" for the Austrian *Philosophische Audiothek* (http://audiothek.philo.at) on 28/09/2011.

Florian Steinberger

**1. Type of Affiliation with the MCMP**

Florian Steinberger joined the Chair of Logic and Philosophy of Language at LMU Munich as an Assistant Professor on April 1, 2011, and he joined the MCMP as a member (funded by the LMU) at the same time.

**2. Research Projects**

In this period, Florian Steinberger's research has focused primarily on two projects: a book-length project on logical inferentialism (co-authored with MCMP member Julien

Murzi) and a novel research project on the normative role of logic in our thinking and reasoning, which will ultimately serve as his habilitation thesis. Relating to the former project, a paper entitled 'On the equivalence conjecture for proof-theoretic harmony' is forthcoming in the *Notre Dame Journal of Formal Logic*. He is currently working on two further papers, which he hopes to submit for publication by the end of the summer semester 2012. These will be included in the book aforementioned monograph, which they aim to complete by the end of 2012. In parallel, he is editing a book on the same topic (with Neil Tennant). Our proposal will soon be under review with Routledge. As for the latter project on the normative status of logic, a paper entitled 'Is logical knowledge dispositional?' (with Julien Murzi) is under review with *Philosophical Studies*. Furthermore, he is working on three further papers, two of which he intends to submit by the end of May 2012.

## 3. Academic Output

Publications:

- "On the Equivalence Conjecture for Proof-Theoretic Harmony", forthcoming in the *Notre Dame Journal of Formal Logic*.
- "Is Logical Knowledge Dispositional?" (with Julien Murzi), under review with *Philosophical Studies*.

Presentations:

- Invited talk at the Department of Philosophy, University of Vienna, April 2011.
- Invited talk at the Department of Philosophy, University of Salzburg, November 2011.

Additional activities:

- Florian Steinberger is a member of the organizing committee of the *Formal Epistemology Workshop* to be held in May/June 2012, and he prepared and co-organized a joint workshop between the MCMP and members of the Department of Linguistics, which was held in March 2012.

Johannes Stern

## 1. Type of Affiliation with the MCMP

Johannes Stern has been a Doctoral Fellow at the MCMP from 01/11/2011. He is funded by the DFG research project „Syntactical Treatments of Interacting Modalities" (PI: Hannes Leitgeb). He is finishing his PhD thesis, which he is going to defend at the University of Geneva, after which he will join the MCMP as a Postdoctoral Fellow (still funded by the DFG project).

## 2. Research Projects

During his stay at the MCMP Johannes Stern has been working on the syntactical treatment of modalities. More specifically, he investigates extensions of axiomatic theories of truth in a language that contains, besides the truth predicate, a modal predicate, and which contains additional axioms for the interaction of these predicates. This research led to the construction of two axiomatic theories of truth and modality, the one extending the well-known axiomatic theory of truth FS, the other extending the even better known theory KF.

## 3. Academic Output

Publications:

- "Modality and Axiomatic Theories of Truth I: Friedman-Sheard", and "Modality and Axiomatic Theories of Truth II: Kripke-Feferman", in preparation.
- *Toward Predicate Approaches to Modality* (PhD thesis at the University of Geneva), in preparation.

Marta Sznajder

## 1. Type of Affiliation with the MCMP

Marta Sznajder has been an MCMP Doctoral Fellow (funded by the MCMP) since September 2011. Furthermore, Marta Sznajder had stayed at the MCMP from 8th to 12th of July 2011 on a short pre-PhD visit also funded by the MCMP.

## 2. Research Projects

In the quoted period Marta Sznajder commenced her work in a PhD project titled "Intensional Objects: Semantics, Ontology, Logic". She focused on developing a dynamic semantics for intensional verbs in English, based on the *Logic with Generalized Quantifiers* of Barwise and Cooper. She identified new kinds of phenomena that occur when intensional verbs are used in a dialogue setting. The formal systemthat she developed compares well with the existing approaches, offering a new solution to the substitution puzzles that have been recognized in the field.

## 3. Academic Output

Presentations:

- Presentation on the topic of her PhD research as a part of a group presentation introducing the MCMP, MCMP *Workshop in Mathematical Philosophy*, Munich, 14/09/2011.
- "Formal Semantics for Intensional Transitive Verbs", *Logic Tea Series*, Institute for Logic, Language and Computation, Amsterdam 08/12/2011.

We hope that this gives a very thorough picture of what was going on at the MCMP in the course of the period of 01/01/2011—31/12/2011.

Hannes Leitgeb, April 26th, 2012
MCMP, LMU Munich