

**EUROPEAN SCIENCE FOUNDATION EXPLORATORY WORKSHOP
'RATIONALITY AND PATTERNS OF REASONING: A EUROPEAN
PERSPECTIVE'**

**Convenor: Roberto Scazzieri; Co-convenor : Maria Carla Galavotti; Local
Organizer: Raffaella Campaner**

(University Residential Centre, University of Bologna, Bertinoro, 14-16 November
2004)

Executive Summary

The exploratory workshop examined the relationship between reasoning and rationality in a genuinely cross-disciplinary framework. It started off with a discussion of contemporary research into the pragmatic dimensions of rationality and moved on to consider the many-sided implications of 'rationality at work' in a variety of disciplines. This suggested the possibility of a new unifying framework, which distances itself from the received conceptions of deductive and inductive inference as it is related with a situational conception of reasoning.

The workshop was opened by introductory remarks by Maria Carla Galavotti and Roberto Scazzieri, who outlined the aims of the workshop, its interdisciplinary scope and its relationship with the objectives of the European Science Foundation.

The first session was devoted to an overview and critical discussion of pragmatic rationality ('Practical Reason: State of the Arts and Research Perspectives'). The first workshop presentation, by Patrick Suppes (Stanford), examined rationality as the result of habits leading to specific conceptual associations, and contrasted this approach with the more traditional view linking rationality with preference-consistent choice ('Habits versus Preferences as Predictors of Choice'). The following presentation, by J. Mitchell (Cambridge), focused on the relationship between rationality and irrationality and emphasized the continuum between these two apparently opposite criteria of human behaviour ('Rationality and Irrationality'). Mitchell's paper was followed by the two papers by S. Hartmann (London School of Economics) and Domenico Costantini

(Bologna). Hartmann examined the role of probability inferences and probabilistic decision-making in scientific practice ('Bayesianism and the Practice of Science'). Costantini addressed the issue of how rationality should be described once it is accepted that uncertainty is the 'normal' state of nature from an ontological point of view ('Probability and Reasoning'). The second and third session of the workshop directly examined the relationship between rationality and cognitive processes ('Cognitive Abilities and Mental Frames').

In particular, J. Broome (Oxford) considered the role of rational standards in the evaluation of reasoning patterns ('Rationality and Reasoning'), W. Rabinowicz (Lund) investigated the pragmatic motivations behind rationality constraints upon human behaviour ('Pragmatic Arguments for Rationality Constraints'), S. Zamagni (Bologna) examined the relational foundations of rationality ('Rationality and Relationality'). The afternoon session included the papers by R. Scazzieri (Bologna), R. Hertwig (Basel), M. Klaes (Stirling), and S. Ngo-Mai (Nice). All four presentations emphasized, from different points of view, the role of relationality and social framing in the identification of effective rationality criteria. In particular, Scazzieri addressed the issue of contingency with respect to the rational identification of co-ordination focal points ('Coordination, Identity and Economic Contexts'), Hertwig analyzed the positive function of upper bounds upon human cognitive abilities in a context-dependent set-up ('Ecological Rationality and the Benefits of Limited Cognitive Abilities'), Klaes addressed the nature of rationality in a setting characterized by the reflexivity of human deliberation ('Rationality at Work: Social Framing and Reflexivity'), and Ngo-Mai considered the relationship between cognitive adaptation and self-organization ('Cognitive Adaptation and Path Dependence').

The fourth session looked at the wider issue of contexts as central determinants of reasoning patterns ('Situations and Patterns of Reasoning'). In particular, P. Mello (Bologna) addressed the issue of situation in an artificial intelligence framework, and emphasized the role of abduction as the central reasoning ability in the setting of 'open society' ('Abductive Reasoning in an Open Society'); R. Campaner (Bologna) discussed the specific structure of situational arguments in medical reasoning ('Causation and Medical Reasoning: Therapies and Preemption'); T. R. Zuidema (University of Illinois)

examined the role of rationality as a type of ‘fitting ability’ in a comparative anthropological perspective (‘Rationality and Reasoning: An Anthropological Point of View’).

The exploratory workshop was concluded by a panel discussion in which participants emphasized the specific role of cross-disciplinary discussion in the analysis of reasoning patterns and in the pragmatic identification of rationality standards. In particular, the panel discussion explored the possibility of new collaborative initiatives, which would involve the Institute of Advanced Study of the University of Bologna, the London School of Economics, the University of Basel, the University of Cambridge, and other institutions. Finally, the discussion provided a first opportunity to examine contents and structure of the volume *Reasoning, Rationality and Probability* (editors M.C. Galavotti, R. Scazzieri and P. Suppes). This volume was stimulated by the workshop discussions and will partly be based upon the workshop proceedings. It will be published by CSLI Publications / Chicago University Press in the first semester of 2006.

Scientific contribution of the exploratory workshop

The workshop provided a cross-disciplinary forum for the exploration of pragmatic approaches to the theory of rationality. It offered the opportunity to discuss rationality as a feature of reasoning patterns in a variety of disciplines (primarily philosophy, economics, cognitive science, anthropology, artificial intelligence). The workshop has been an important stepping-stone towards the formation of a European research agenda on pragmatic rationality and patterns of reasoning. The workshop provided the starting point for collaborative research whose initial results will be published in the volume *Reasoning, Rationality and Probability* (edited by M.C. Galavotti, R. Scazzieri and P. Suppes), forthcoming CSLI Publications / Chicago University Press, 2006. The following research meetings have been or will be organized on its wake: *Causality, Probability and Rationality* (6-9 May 2005), Institute of Advanced Study, University of Bologna; *Probability, Rationality and Economics: the Contribution of Bruno de Finetti* (Fall 2006), Institute of Advanced Study, University of Bologna; *Plurality in Causality. Workshop I* (Spring 2006), Institute of Advanced Study, University of Bologna and

Centre for the Philosophy of Natural and Social Science, London School of Economics and Political Science ; *Plurality in Causality. Workshop II* (Fall 2006), Centre for the Philosophy of Natural and Social Science, London School of Economics and Political Science, and Institute of Advanced Study, University of Bologna .

Assessment

The exploratory workshop consolidated existing cross-disciplinary links and encouraged the identification of new commonalities among a variety of disciplines. In particular, the workshop encouraged fresh collaborative research work, of which the volume *Reasoning, Rationality and Probability* (edited by M.C. Galavotti, R. Scazzieri and P. Suppes, forthcoming CSLI Publications / Chicago University Press, 2006), will be the first product.

FINAL PROGRAMME

Saturday 13 November 2004

Afternoon: *Arrival of participants*

20.00 *Buffet dinner*

Sunday 14 November 2004

Practical Reason: State of the Arts and Research Perspectives

10.00 – 10.15 Opening remarks (Director, Institute of Advanced Study, University of Bologna)

10.15 - 10.30 **M.C. Galavotti:** "Rationality and Patterns of Reasoning: Introductory Remarks"

10.30 – 10.45 **R. Scazzieri:** "Rationality and Patterns of Reasoning Introductory Remarks"

10.45 – 11.15 **P. Suppes:** "Habits vs. Preferences as Predictors of Choice"

11.15 – 11.45 *Coffee break*

11.45 – 13.00 Plenary discussion

Lunch

15.00 – 15.30 **J. Mitchell:** "Rationality and Irrationality"

15.30 – 16.00 **S. Hartmann:** "Bayesianism and the Practice of Science"

16.00 – 16.30 **D. Costantini:** "Probability and Reasoning"

16.30 – 17.00 *Coffee break*

17.00 – 18.30 Plenary discussion

20.00 *Dinner*

Monday 15 November 2004

Cognitive Abilities and Mental Frames

09.30 – 10.00 **J. Broome:** "Rationality and Reasoning"

10.00 – 10.30 **W. Rabinowicz:** "Pragmatic Arguments for Rationality Constraints"

10.30 – 11.00	R. Scazzieri: "Coordination, Identity and Economic Contexts"
11.00 – 11.30	<i>Coffee break</i>
11.30 – 13.00	Plenary discussion
	<i>Lunch</i>
15.00 – 15.30	S. Zamagni: "Rationality and Relationality"
15.30 – 16.00	R. Hertwig: "Ecological Rationality and the Benefits of Limited Cognitive Abilities"
16.00 – 16.30	M. Klaes: "Rationality at work: Social Framing and Reflexivity"
16.30 – 17.00	<i>Coffee break</i>
17.00 – 18.30	Plenary discussion
20.00	<i>Dinner</i>

Tuesday 16 November 2004

Situations and Patterns of Reasoning

09.30 – 10.00	P. Mello: "Abductive Reasoning in an Open Society"
10.00 – 10.30	R. Campaner: "Causation and Medical Reasoning. Therapies and Preemption"
10.30 – 11.00	T.R. Zuidema: "Rationality and Reasoning: An Anthropological Point of View"
11.00 – 11.30	<i>Coffee break</i>
11.30 – 13.00	Plenary discussion

and Panel Discussion on Perspectives for Interdisciplinary Co-operation

Buffet lunch

Departure

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STATISTICAL INFORMATION

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Participants from Europe: 18

Participants from outside Europe: 2

Graduate students (from Europe): 4

Participants' countries of provenance:

Germany, France, Italy, Sweden, Switzerland, United Kingdom, United States of America