



the institute for advanced studies

Limits to Rationality in Financial Markets

Workshop 1: Philosophical Issues

15-16th June 2009

Programme and Abstracts

	Monday 15th		Tuesday 16th
10:00-10:30	Opening Remarks	10:00-10:30	Tirassa
10:30-11:30	Maki	10:30-11:30	Rogeberg
11:30-12:00	<i>Coffee</i>	11:30-12:00	<i>Coffee</i>
12:00-13:00	Herrmann-Pillath	12:00-13:00	Novarese
13:00-14:30	<i>Lunch</i>	13:00-14:30	<i>Lunch</i>
14:30-15:30	Loasby	14:30-15:00	Pongiglione
15:30-16:00	Rios	15:00-15:30	Cross
15:30-16:30	<i>Tea + discussion</i>	15:30-16:00	Maki
16:30-16:45		16:30-16:45	Closing

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Abstracts

Rod Cross (University of Strathclyde), *Mach, Methodology, Hysteresis and Economics*

This talk will look at the methodological stance adopted by one of the leading contemporary economists, Paul A. Samuelson. This is the philosophy of science of Ernst Mach. These spectacles are used to look at issues in economics, with particular reference to explanations involving hysteresis.

Carsten Herrmann-Pillath (Frankfurt School of Finance and Management): *Externalism and the Problem of Identity in Economics*

In recent debates about the foundations of economics, the issue of agent identity has been raised as a central concern. As has been demonstrated by John Davis, the standard model in economics does not fulfil elementary philosophical criteria of identity. This matches with the emerging difficulty in recent neuroeconomic work of how to fix the unity of decision making, facing a modularized brain (which actually mirrors Hume's thinking). Thus, following the Davis critique, I argue that only an externalist approach can rigorously provide a conceptual framework for agent identity. Beyond Davis, I propose that externalism has to be seen as a part of a general evolutionary and naturalistic conception of the individual. From this point of view, agent identity emerges from the evolution of cultural artefacts, which scaffold the capacities of the human brain to manage complex social interactions. I posit that externalism provides the philosophical foundation for the notion of embeddedness which has been widely accepted in economic sociology recently. One implication for economics is that only models with heterogeneous agents and different classes of agents, relating with different domains of interaction, can adequately reflect the more fundamental phenomenon of agent identity, as they have been proposed by Alan Kirman and others recently.

Brian J. Loasby (Stirling University): *Pattern-making and self-organisation: a convergence of ideas?*

My aim is to compare ideas from economists such as Smith, Marshall, Hayek, Schumpeter, and Shackle, from RSE lectures by Sir John Meurig Thomas and Sir Michael Atiyah, and from Herbert Simon and John Ziman, among others.

Uskali Maki (University of Helsinki): *Unrealistic Models are just Fine for Truth-Seekers*

Theoretical models are imagined simple worlds that are embedded in complex acts of representing the world. Models are unrealistic in many ways, such as in excluding much and in involving false idealizing assumptions. Yet there is typically a belief or hope that modelling somehow manages to deliver true information about the world. The talk discusses possible ways of reconciling truth and falsehood in modelling. The arguments exploit the resources of my functional decomposition approach to the study of modelling. The idea is that modelling involves various components with different functions, and it is only by way of identifying these components and functions that the model-world relations can be understood.

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Marco Novarese (University of Torino): *Learning and Rationality: a Cognitive Perspective*

My aim is to show, theoretically and experimentally, the need for a wider approach to learning. Usually Economics considers learning as a process allowing an agent to get more and more efficient in decision making. Yet we need to consider that learning requires the need for stable contexts, where an agent can undertake trial and error processes and observe regularities. In abstract mathematical environments, contexts are defined by the topic and are easily recognizable. In the real world everything is different. Contexts have to be defined and understood. The same situation can be perceived in many different ways. This fact has a series of implications for learning and efficiency. Recognizing a context implies forgetting part of the information and focussing on few hints. So agents need to be boundedly rational in some respects (we can pose a paradox like: in order to be smart agent need to be dumb). As learning processes are founded on the need to fix contexts, knowledge relies on the past experience of individual or social agents. Besides, as contexts can be subjectively determined, agents adapt to their representation of the environment, more than to the same environment. All of these ideas have many implications for the analysis of human behaviour and rationality which I'll try to discuss.

Francesca Pongiglione: *Human nature and sustainability policies*

In his philosophical enquiry on human nature, Bernard Mandeville, an eighteenth century Dutch philosopher, leaves us a rather "pessimistic" portrait of the human being: slave of his passions, and with a very limited rationality. These two characteristics ascribed to human nature allow him, anyway, to conceive one of the very first liberal political systems. Borrowing Mandeville's view of human nature, I claim that selfishness and limited rationality can be considered a good "anthropological framework", which might be beneficially taken into account in the development of an economic policy that aims to support sustainability. Some basic problems of sustainability policies, indeed, come directly from these two features, naturally belonging to human beings, and therefore, a good policy which aims to fight environmental problems, should take them into primary account.

Diego Rios (Witten Herdecke University): *Reductionism in the Social Sciences*

The issue of reductionism has been a hot topic in the philosophy of the social sciences and in the philosophy of science in general. In my talk I will briefly discuss some aspects of this debate. I will claim that at least part of the disagreement relies on how to conceive reduction itself. After briefly clarifying the different concepts of reduction involved in the reductionism/anti-reductionism debate, I will argue for an overall reductionist position capable to accommodate some constrained forms of high-level autonomy.

Ole Rogeberg (Frisch Centre): *Taking Absurd Theories Too Seriously - Diagnosing and Treating the Blind Spot of Economics*

Do economists tend to be less critical when evaluating bold policy relevant claims about causality and welfare than when evaluating claims of formal innovation or statistical fit? Different claims require different types of evidence and arguments for support. E.g., a claim that a formal theorem

resolves a technical difficulty is different from the claim that a policy change will benefit a certain group of people. Using a unique survey mailed out to all researchers authoring or co-authoring papers on rational addiction theory along with a simple categorization of claims, I examine what claims these researchers see as supported by existing research in the area, what kinds of evidence they see as relevant to evaluating these claims, and the extent to which they see the relevant evidence as being supportive of these claims. The results indicate that the researchers are significantly better at evaluating claims that a theory represents a formal innovation or is able to match patterns in data, than they are at evaluating claims that a theory provides insight into the causal mechanism involved or provides credible evidence on the welfare impact of policies. If this result proves robust in further work, it may help explain why even top journals in economics publish articles with absurd claims about reality, such as illustrated by the rational addiction literature.

Maurizio Tirassa (University of Torino) : Identity and Agency in Complex Organizations

An agent's actions are not single, isolated acts, but are weaved into the webs of strategies that it enacts. Strategies and actions should be viewed from a subjective point of view, and understood in terms of how the agent relates to the situation in which it finds itself; such situation is a subjective reading of the agent's position in and participation to the environment. This links the notions of strategy and action to that of identity. Identity, understood in terms of subjective positions like "who I am", "what my situation is", "what I want to achieve", "what I am going to do" and so on, is the foundation on which an agent (whether "economic" or otherwise) frames its environment and situation, its actual and potential actions in that situation and its interpretation of feedback received. Identity is not a still image, but a complex process in which drives toward differentiation and integration are dynamically balanced. In the case of enterprises, or in general of organizations, several layers of identity need be identified: the enterprise itself, its subsystems, and individual persons. The relation between these layers is neither hierarchical nor one of reduction; the overall identity and strategy result instead from the complex interplay of semiautonomous systems that affect each other while each follows its own trajectory. Such trajectories include centrifugal and centripetal processes: a dynamic balance between the various types of trajectory is needed to maintain the fitness of the organization as a whole. If the balance is not maintained, or if its dynamics are too stereotyped, problems may end up affecting the enterprise's internal organization or its strategies in the environment. In this framework, it is extremely difficult to generate predictions of the sorts that are typically looked for in economics as well as in other disciplines. Predictivity is a dynamic notion, to be found in the overall fitness of the dynamic organization to its dynamic subjective world, rather than in allegedly objective measurements of rationality or value.

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