Evolution, Game Theory, & the Social Contract Conference

Arnold and Mabel Beckman Center

100 Academy Drive, Irvine, Ca 92617

March 26-29, 2009

Program and Abstracts

Friday – March 27th

Session I *(9am – 12 noon)* *Talk Titles*

Ken Binmore, University College London . . . . . "Natural Justice"

Abstract:

John Mackie's *Inventing Right and Wrong* urges us to look at anthropological data through the lens of game theory in seeking to create a naturalistic theory of human morality. This presentation summarizes my attempt to take Mackie's advice.

Jason Alexander, London School of Economics . . . . . *TBA*

Session II *(2 pm-5pm)*

Peter Vanderschraaf, University of California, Merced . . . . . "Justice as Mutual Advantage and the Vulnerable"

Jim Woodward, California Institute of Technology . . . "Why do People Cooperate? Some Empirical Evidence and Normative Implications"

Abstract:

This talk will describe some recent experimental work on human behavior in some games with opportunities for cooperation (ultimatum games, public goods games, trust games etc.) My interest will be in exploring some of the implications of this work for our understanding of when and why cooperation occurs and for some associated normative issues in political philosophy. . . .

Saturday - March 28th

Session III *(9 am -12 noon)*

Carl Bergstrom, University of Washington . . . . . ." Dealing with Deception"

Abstract:

Social function and organization are predicated on effective coordination and cooperation; these in turn require honest communication among the participants in a social group. But in order to facilitate any sort of social structure and interaction, there has to be some way to deal with the threat of deception. We see this not only at the level of complex animal societies such as baboon troops or cooperatively nesting birds or social insects, but also in the complex social organization within the body of any single multicellular organism. The problem of avoiding deception to allow social organization can be broken down into at least two categories: 1) the legitimate members of the social institution have some overlap in interests, but they also have individual incentives for deception, and 2) non-members of the social organization attempt to parasitize and exploit the system by subversion and other forms of trickery. We see the former category in the evolution of mate-choice signals; we see the latter in the evolution of immune strategies to deal with pathogens. I will discuss the problem of deception in biological systems, and outline some of the strategies that organisms use to deal with it.

Christina Pawlowitsch, Harvard University . . . . "Neutrality, Drift, and the Branching of Languages"

Abstract:

Language is our legacy; language is what makes us uniquely human. And yet we can communicate effectively only with those of our conspecifics who have grown up in the same linguistic community, typically the same geographical region. There are, at present, about 7,000 languages spoken in the world. Languages differ on all levels of linguistic expression---the lexicon, morphology, phonology, syntax and semantics. In this talk I will address the question of language differentiation on the level of the lexicon in the form of semantic change, that is, change in the meaning of specific lexical items. My modeling framework are Lewis-type signaling games. I will present a simple model that can explain how the same lexical item (word) can acquire a different meaning in two different languages that go back to the same common ancestor, like for example English "clean" and German "klein" (="small").

***Session IV** (2pm – 5pm)*

Patrick Grim, State University of New York, Stony Brook . . . . . "Philosophical Implications of Interaction and Information Networks"

Abstract:

Network structure turns out to have important implications in social and political philosophy, in philosophy of language, and in epistemology and philosophy of science. This paper expands on earlier work in spatialized game theory to show the dramatic ways in which different interaction networks can either favor or discourage the emergence of cooperation. Modeling techniques are carried further to questions of information network effects in the emergence of both simple semantics and simple pragmatics. The final questions raised are in epistemology and philosophy of science. For some epistemic landscapes, given certain assumptions regarding hypothesis updating, important epistemic desiderata may be maximized when information networks are thinly distributed rather than densely connected. Scientific communities may learn more when individual scientists learn less.

Kevin Zollman, Carnegie Mellon University . . . . . " When is more information harmful?

Abstract:

This paper models some learning situations faced by boundedly rational individuals and asks when it is better for them to have access to less information. In situations where individuals are required to seek out evidence it can be the case that less information makes groups of learners as a whole more reliable at converging to the best behavior. I will give a few of these examples and discuss the robustness of this phenomenon.

Sunday - March 29th

***Session V** (9 am – 1pm)*

Allan Gibbard, University of Michigan . . . . . "Does Evolution Give Us Moral Knowledge?"

Zachary Ernst, University of Missouri-Columbia . . . . . ." Common knowledge and finite models"

Abstract:

I shall discuss models of common knowledge from the perspective of modal logic and finite model theory. I argue that there are deep difficulties with using information partitions (as in Aumann's framework) for modeling situations in which common knowledge may be required for coordination. Along the way, I shall defend David Lewis's formulation of common knowledge from some criticisms.

Sponsored by:
The History and Philosophy of Science Program in the Department of Logic and Philosophy of Science, University of California, Irvine
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