

## Pyrenean Interdisciplinary Research Event (PIREN)

Ax les Thermes, February 4-6, 2015

**Organizers:** Maxime Cauchoix & Gladys Barragan-Jason

**Organization assistant:** Valérie Nowaczyk

### PROGRAM

#### Wednesday, 4th February 2015: History/Political Science/Neuroeconomics

- 2:15pm-2:30pm: Welcome coffee
- 2:30pm-4:00pm: **Jakob Vogel**, *Sciences Po, Paris*  
"Inventing an Economic Branch. Mining Officials and the Construction of Economic Statistics in the 19<sup>th</sup> Century"
- 4:00pm-4:45pm: **Sreemati Mitter**, *IAST Research Fellow*  
"Even the Tables and Chairs: "End of Palestine Mandate" Financial Negotiations, 1949-52"
- 4:45pm-5:30pm: **Dominik Duell**, *IAST Research Fellow*  
"Leading from the Periphery - An Experimental Study of the Origins of Spontaneous Rebellion"
- 5:30-6:15pm: **Jonathan Klingler**, *IAST Research Fellow*  
"Don't Know What You Got: Neuroticism and Ideological Uncertainty"
- 6:15pm-7:00pm: Break
- 7:00pm-8pm: Dinner at "Le p'tit montagnard"
- 8:00pm-9:00pm: **Simon Thorpe**, *CerCo, CNRS, Toulouse*  
"Four decades of neuroeconomics - a personal view"

#### Thursday, 5th February: Evolutionary Psychology/Evolutionary Biology/Anthropology

- 2:15pm-2:30pm: Coffee
- 2:30pm-4:00pm: **Jack Vromen**, *EIPE, Erasmus University Rotterdam*  
"The Case for Strong Reciprocity as an Instance of Interdisciplinarity"
- 4:00pm-4:45pm: **Alexis Chaine**, *SEEM, IAST*  
"Complexity in Evolution: social structure and the evolution of social signals in sparrows"
- 4:45pm-5:30pm: **Heidi Colleran**, *IAST Research Fellow*  
"Contraceptive use and the meaning of "natural fertility""
- 5:30-6:15pm: **Arnaud Tognetti**, *IAST Research Fellow*  
Can a collapse of global civilization be avoided? The IAST expertise at stake
- 6:15pm-7:00pm: Break
- 7:00pm-8pm: Dinner at "Le p'tit montagnard"
- 8:00pm-9:00pm: **Informal discussion at "le Comptoir des Négociants"**

## Friday, 6th February 2015: Economics/Behavioral Economics/Evolutionary Biology

- 2:15pm-2:30pm: Coffee
- 2:30pm-4:00pm: **Mark Schaffer**, *Heriot-Watt University, CEPR and IZA*  
“Economics and Biology”
- 4:00pm-4:45pm: **César Mantilla**, *IAST Research Fellow*  
“Fishing Technology and Market Structure in Artisanal Fisheries: An Artefactual Field Experiment”
- 4:45pm-5:30pm: **Ingela Alger**, *IAST, TSE, Toulouse*  
“Evolutionary foundations of human motivation”
- 5:30pm-6:30pm: General Discussion on Interdisciplinarity

## ABSTRACTS

### DAY 1 Wednesday, 4th February 2015: History/Political Science/Neuroeconomics

**Jakob Vogel**, *Sciences Po, Paris*

**Title:** “Inventing an Economic Branch. Mining Officials and the Construction of Economic Statistics in the 19<sup>th</sup> Century”

**Abstract:** At the latest from the 18<sup>th</sup> century mining became an important field of action of European state administrations trying to stimulate economic activities that seemed particularly important for industrial development. In most European states this policy was organized by a “mining administration” run by officials that usually had received a special education in the “mining sciences”. Although this overall policy was commonly accepted in most European states of the late 18<sup>th</sup> and 19<sup>th</sup> century, the exact shape of the competences of the mining administration never were clearly defined. From the beginning, its boundaries were the object of numerous disputes. Other state officials and administrations but also the different economic actors, mainly land owners and private entrepreneurs, also claimed rights in this field and tried to minimize the influences of the mining administration. In this context, the construction of an official statistic of the mining industry became an important challenge for the mining administrations. The use of these statistics allowed them to construct a public image of the sector as rather homogenous economic entity and helped to legitimize their work in the broader public.

By focusing on the example of the history of the establishment of an official mining statistic in Prussia in the 19<sup>th</sup> century the paper highlights how these statistics reflected the ambivalent status of an evolving economical “branch” as well as its contingent, historically shaped scope. Thereby the paper tries to contribute to a more general reflection about the historical genesis of categories such as “the mining industry” usually used by economic historians and economists to narrate the historical process of industrialization and to understand the development of different industrial sectors.

**Sreemati Mitter**, *IAST research Fellow*

**Title:** “Even the Tables and Chairs: “End of Palestine Mandate” Financial Negotiations, 1949-52”

**Abstract:** In late 1949, a year after the termination of the British Mandate for Palestine, the British government embarked upon two separate bilateral negotiations with the states of Israel and Jordan, i.e., the two “successor states” of erstwhile Palestine. These negotiations were intended, by the British government, to arrive at a final settlement of all financial claims arising from the termination of the British Mandate for Palestine, and eventually culminated, after three years of hard-fought talks, in two parallel, minutely-detailed, agreements, which carefully apportioned all the assets and liabilities of the erstwhile Palestine Mandate Government between the United Kingdom, Jordan, and Israel; so careful was this apportioning, in fact, that even the tables and chairs of the former Mandate government offices were accounted for.

But the talks were not as comprehensive as it would seem, for the Arab Palestinians, who collectively owned the majority of the assets under discussion, were left entirely out of the proceedings; in fact, not a single Palestinian representative was invited to either the Anglo-Israeli or Anglo-Jordanian talks. Consequently, the Palestinians were denied payment of their portion of three large asset groups (the balances of the Palestine Currency Board; the unpaid balances of the Palestine Bearer Bonds; and the remaining assets of the Citrus Marketing Board), and remain, till today, unpaid the sums they are owed from the dissolution of these three institutions.

My talk, which forms the basis for a journal article I'm working (VERY preliminary stage at the moment) will make the following broad arguments:

- 1) *What happens when an economy is violently disrupted by war:* These negotiations illustrate what happens when an economy is disrupted overnight not just by war and violence, but with the abrupt termination of one regime and its replacement by another.
- 2) *Vulnerability of stateless people to dispossession:* The negotiations also illustrate the broad point made in my larger book project, of which I hope this will be a new chapter: that stateless people, like the Palestinians, are particularly vulnerable to financial and monetary dispossession because they get left out, because they don't get "a seat at the table," because there is no "state" to speak for them and to insist on their rights. In arguing this point, I shall be countering the "fog of war" type theory, which posits that war is messy, and all sorts of dispossessions are normal to it. As this case shows, war is messy, but states are able – as Israel and Jordan were – to receive some settlement and recompense out of it; stateless people cannot.
- 3) *Dispossession is legalized and normalized:* The negotiations also show how the dispossession of the Palestinian people was made to appear "legal" and "normal," not just by Israel, which was openly hostile to the Arab Palestinians, but also by Britain and Jordan, which professed friendship and support.
- 4) *Agency:* Finally, I will describe how the Palestinians, despite their statelessness, nevertheless attempted to fight, through legal avenues, for the restitution of their financial assets; an effort which I call "legal agency."

**Dominik Duell**, *IAST research Fellow*

**Title:** "Leading from the Periphery - An Experimental Study of the Origins of Spontaneous Rebellion (with Navid Hassanpour and Nicholas Christakis, Yale)"

**Abstract:** Why are mass rebellions spontaneous and seemingly leaderless? We provide an answer based on the network locations of the involved, showing that in our synchronous network experiments of collective risk-taking, peripheral agents of change can trigger waves of risk-taking that are more far-reaching and rapidly diffusing than those started by centrally positioned instigators. Subjects were ranked based on an individual risk propensity measure, and the most risk seeking individuals were experimentally placed in the most central, most peripheral, or random network locations in three network treatments.

Compared to the central positioning, in the peripheral assignment collective action cascades happened faster and were more frequent. Contrary to the longstanding emphasis on the importance of central influentials, our findings propose a resolution to the long-standing paradox of revolutions as sudden and leaderless social processes: peripheral leaders who engender the fastest diffusion of collective action are also the most obscure ones.

**Jonathan Klingler**, *IAST research Fellow*

**Title:** "Don't Know What You Got: Neuroticism and Ideological Uncertainty"

**Abstract:** The Five Factor Model of personality suggests that individuals with high levels of Neuroticism exhibit higher levels of instability in their behavior and beliefs. This instability in opinion and action suggests that the political beliefs of highly neurotic individuals are structurally distinct. We argue that Neurotics have beliefs which are distributed with higher variance, and thus they are more uncertain about their ideological positions and those of elected officials, as well as measures of ideological space. Using data from the CCES, we find that Neuroticism is strongly and positively associated with self-reported uncertainty about one's ideological position, the number of politicians an individual was unable to place on the left-right dimension, and inability to correctly use the 7-point ideological scale.

**Simon Thorpe**, CerCo, Toulouse

**Title: "Four decades of neuroeconomics - a personal view"**

**Abstract:** When I started my thesis with Edmund Rolls in Oxford in 1977, my job was to try and discover how neurons in the monkey lateral hypothalamus could respond selectively to the sight of food, as well as to arbitrary visual stimuli which meant that food was available. Those neurons also have the property of only responding if the monkey was hungry. Much of my career has been following up these basic questions. How do we learn to recognize new visual and auditory stimuli? How do we make decisions about them? How do we categorize things? My overall conclusion is that much of the brain's sensory processing mechanisms don't actually care whether a particular stimulus is rewarded or punished - they care more about how often they occur. However, beyond the visual system, there are separate mechanisms in other brain areas whose job is to determine whether a particular object is good or bad. I suspect that these questions are probably quite central to the field of Neuroeconomics.

**DAY 2 Thursday, 5th February: Evolutionary Psychology/Evolutionary Biology/Anthropology**

**Jack Vromen**, EIPE, Erasmus University Rotterdam

**Title: "The Case for Strong Reciprocity as an Instance of Interdisciplinarity"**

**Abstract:** At first sight, the case for Strong Reciprocity (SR) is an uncontested showcase of interdisciplinarity. Practitioners of various disciplines (sometimes called "The Collective"), ranging from economics over evolutionary theory to anthropology, join forces to establish the existence and importance of SR. Indeed, the case for SR is a multifaceted case that aims to make inroads in several (sub)disciplines:

1. Experimental economics: to establish the existence and prevalence of SR as a behavioral disposition
2. Behavioral economics: to show the need to make room for the "social preference" SR as a separate argument in the utility function
3. Psychology/neuroeconomics: to pinpoint the specific motivation (the "proximate cause") underlying SR
4. Evolutionary theory: to ("ultimately") explain how SR could have evolved

Yet, calling the case for SR an instance of interdisciplinarity warrants further inspection. Are the studies in the various (sub)disciplines integrated (or "synthesized") in a meaningful way? True, it can be argued that the studies in the several facets in the case mutually reinforce each other. Putting them together can be said to strengthen the case for SR. Doing so also contributes to a more comprehensive understanding of SR. But the implicit presumption seems to be that the several facets can and should be studied independently of each other. Thus the idea is that one can study the specific motivation underlying SR without looking at how SR could have evolved, for example. In this sense, the case for SR affirms the usefulness of disciplinary specialization rather than the need for interdisciplinary integration and synthesis. The paper examines various ways in which studying one facet might help in studying other facets.

**Alexis Chaine**, SEEM, IAST

**Title: "Complexity in Evolution: social structure and the evolution of social signals in sparrows"**

**Abstract:** We all like very simple explanations for what we observe – and in fact, much of science is based on the principal of parsimony where the simplest explanation is considered the best. But nature is messy, it runs many different 'experiments' where the details matter, and all of this gets even more complicated when you deal with social groups where both cooperation and conflict are a regular part of life. In this talk, I use my own work looking at the evolution of complex social signals in golden crowned sparrows to illustrate the role of context-dependent social behavior in the evolution of signals. The good news is that by digging into the details of the system, we can actually decompose this complexity and start to understand it.

**Heidi Colleran**, IAST research Fellow

**Title: "Contraceptive use and the meaning of "natural fertility"'"**

**Abstract:** I will talk about the idea of "natural fertility" in both the broad context of human cross-cultural variation and in the micro-context of my research in rural Poland. The talk will include some quantitative and

descriptive results about contraceptive use in my study, and some discussion about how to collect this kind of data. I will highlight the importance of understanding the local context and history of contraceptive use for our understanding of demographic change, and the implications this has for our understanding of "natural fertility" and contraceptive use in other populations.

**Arnaud Tognetti**, *IAST research Fellow*

**Title: "Can a collapse of global civilization be avoided? The IAST expertise at stake"**

**Abstract:** Environmental problems have contributed to numerous collapses of civilizations in the past. Now, for the first time, a global collapse appears likely. Overpopulation, overconsumption by the rich and poor choices of technologies are major drivers; dramatic cultural change provides the main hope of averting calamity.

Due to the emergency of such a situation, some governments could request scientists' assistance. Ecology, Evolutionary biology, Anthropology, Sociobiology, Psychology, Economics, Political Sciences, History, are some of the disciplines that are pivotal to find some relevant solutions to avoid this collapse. Under a hypothetical scenario in which the IAST has to bring relevant advices to the French government for Paris-Climat 2015 conference, I propose to discuss an interesting paper "Can a collapse of global civilization be avoided?" (Ehrlich & Ehrlich, 2013). I would like that we explore this issue all together and that some relevant ways to provoke a massive and durable cooperative effort among humanity (or at least in France) limiting our impact on earth emerge from our interdisciplinary group.

**DAY 3 Friday, 6th February 2015: Economics/ Behavioral Economics/Evolutionary Biology**

**Mark Schaffer**, *Heriot-Watt University, CEPR and IZA*

**Title: "Economics and Biology"**

**Abstract:** The first part of the presentation will be an informal discussion of the connections between the discipline of economics on the one hand, and those of evolutionary biology and population ecology on the other, starting with Malthus, Darwin and Wallace. The second part will present joint work with David Pugh (Oxford) and Paul Seabright (Toulouse) on the evolution of cooperation that straddles this interdisciplinary boundary. Our model has a sexual selection structure with autosomal genes in a haploid system. The model explains the evolution of cooperation as the outcome of coevolution of two separate traits: (a) cooperative behaviour and (b) a preference for cooperative partners.

**César Mantilla**, *IAST research Fellow*

**Title: "Fishing Technology and Market Structure in Artisanal Fisheries: An Artefactual Field Experiment"**

**Abstract:** We design and conduct a lab-in-the-field experiment to explore if more flexible market structures, rewarding fishermen for placing quality before quantity, can increase the efficiency and improve the management of the resource. We also contribute to the methodological experimental literature by introducing separability between exerted effort and yield through a stochastic production function. We find that the noisy character of the production function increases the pressure over the resource, and that the incentives for placing quality before quantity have a slight and local positive effect on sustainability.

**Ingela Alger**, *IAST, TSE, Toulouse*

**Title: "Evolutionary foundations of human motivation"**