



**Herbert A. Simon**  
International Society

In collaboration with Master in Economics and Complexity of the Collegio Carlo Alberto  
and University of Turin

## **International Workshop**

### ***Adaptive and Ecological Rationality in Complex Environments***

**December 16<sup>th</sup> and 17<sup>th</sup> 2015**

**Campus Luigi Einaudi**  
Lungo Dora Siena 100 - Turin

## **PROGRAMME**

**16<sup>th</sup> December**  
Room C4

3.00 p.m.

**Welcoming Remarks and Introduction**  
**Pietro Terna** President, Collegio Carlo Alberto

**Chairman**

**Magda Fontana** University of Turin and  
Master in Economics and Complexity of the Collegio Carlo Alberto

3.15 p.m.

**Keynote speech**  
**Gerd Gigerenzer**

Max Planck Institute for Human Development, Berlin  
President, International Herbert A. Simon Society

4.00 p.m.

**Discussion**

4.20 p.m.

**Selected papers for the WS**

5.20 p.m.  
**Coffee break**

5.35 p.m.  
**Selected papers for the WS**

6.35 p.m.  
**General Assembly of Herbert Simon Society**

7.15 p.m.  
**End of the Assembly**

**17<sup>th</sup> December**  
*Room D5*

9.00 a.m.  
**Introduction and Chairman**  
**Massimo Egidi** Vice President, Herbert Simon Society and LUISS, Roma

9.10 a.m.  
**Selected papers for the WS**

11.a.m.  
**Coffee Break**

11.15 a.m.  
**Selected papers for the WS**

1.30 p.m.  
**Conclusion**



Herbert A. Simon  
International Society

## International Herbert A. Simon Society

The Herbert Simon Society brings together cognitive scientists, economists, social scientists and philosophers aiming to renew the fundamental concepts of rationality and social action. Starting from the seminal work of Herbert Simon in economics, psychology, computer science, organizational theory, philosophy of science, the HSS wishes to tackle the current debate about the crisis of economic and social rationality, the alternative architectures of mind, the mind-brain relations and the simulation of creativity.

### 1) Introduction

What is Bounded Rationality (Simon, 1956; Gigerenzer and Selten, 2001)? Simon's metaphor of the pair of scissors is the best representation of the concept and of the connected naturalizing nature of the research program. One blade is the nature of our reasoning and decision making processes with all its limits in computation and time and the other blade is the nature of the environment, with all its complexity. The first blade is characterized by limited features compared to the ideal optimization model. The second is characterized by a changing complex structure. Sometimes the first blade fits with the second and those rational scissors work, but sometimes this does not happen. The rationality, that is the ability of the scissors to cut, is bounded by the fitting of one blade, that is reasoning and decision making, with the other blade that is the environment. Fitting, in other words, means adaptive choices in a given environment. Therefore, bounded rationality is a research program aiming to discover what are the natural specific decision rules that are adaptive in specific different environments. From this point of view, the natural decision rules of bounded rationality are the only rules that can be labeled as rational in a prescriptive meaning. Their label of rational is obviously non universal but local to the specific environment or problem space where the rule is adaptive. In other words human beings are often, but not always, bounded rational. Actually, sometimes they are also irrational, that is when their choice is not adaptive to the environment because they don't use the specific natural rule of bounded rationality that is suitable for the particular environment.

Economics and organizational studies have been mainly the dominion of the application of bounded rationality. Actually, the application of bounded rationality is much more wide and inclusive. It covers any field that implies human choice. The adapting features of bounded rationality should deal with many disciplines that usually are outside the field, such as developmental psychology, social psychology, psychopathology, evolutionary psychology, complexity sciences and cognitive anthropology. These different areas could help deepen aspects of bounded rationality and might also be very useful in their application to the field of economics.

### FOUNDING MEMBERS

**Kenneth Arrow** (Stanford Univ.); **Mie Augier** (Stanford Univ.); **William Baumol** (New York Univ.); **Philip Bromiley** (Univ. of Minnesota); **Richard Day** (Univ. of Southern California); **Giovanni Dosi** (Sant'Anna School of Advanced Studies, Pisa); **Peter Earl** (Univ. of Queensland); **Massimo Egidi** (LUISS, Rome); **Edward Feigenbaum** (Stanford Univ.); **Shane Frederick** (Massachusetts Institute of Technology); **Gerd Gigerenzer** (Max Planck Institute for Human Development, Berlin); **Yuji Ijiri** (Carnegie Mellon Univ.); **Daniel Kahneman** (Princeton Univ.); **David Klahr** (Carnegie Mellon Univ.); **Kenneth Kotovsky** (Carnegie Mellon Univ.); **Pat Langley** (Stanford Univ.); **Axel Leijonhufvud**

(Univ. of Trento); **Brian Loasby** (Univ. of Stirling); **James March** (Stanford Univ.); **Luigi Marengo** (Sant'Anna School of Advanced Studies, Pisa, Italy); **Pamela McCorduck**; **Richard Nelson** (Columbia Univ.); **Joseph Pitt** (Virginia Polytechnic Institute); **Roy Radner** (New York Univ.); **Reinhard Selten** (Univ. of Bonn); **Katherine Simon Frank** (Univ. of Minnesota); **Vernon Smith** (George Mason Univ.); **James J. Staszewski** (Carnegie Mellon Univ., Pittsburgh); **Shyam Sunder** (Yale School of Management); **Raul Valdes-Perez** (Vivisimo, Inc.); **Riccardo Viale** (Scuola Nazionale di Amministrazione, Rome).

## GOVERNING BODIES

CO-PRESIDENTS: **Gerd Gigerenzer** (Max Planck Institute for Human Development, Berlin)

VICEPRESIDENT : **Katherine Simon Frank** (University of Minnesota) and **Massimo Egidi** (LUISS; Rome)

EXECUTIVE COMMITTEE: **Giovanni Dosi** (Sant'Anna School of Advanced Studies, Pisa); **Richard Nelson** (Columbia University); **Roy Radner** (New York University); **Oliver Williamson** (University of California Berkeley, Nobel Prize for Economics in 2009)

GENERAL SECRETARY: **Riccardo Viale** (Scuola Nazionale di Amministrazione, Rome)

DEPUTY GENERAL SECRETARY: **Marco Novarese** (Università del Piemonte Orientale Amedeo Avogadro)

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