Developmental aspects of joint intentions and actions and the emergence of economic concepts of coordination and cooperation in children

Interdisciplinary workhop in Paris Institut Jean-Nicod - Ecole Normale Supérieure - EHESS November 3-4, 2011

[This workshop is the second we are organizing as part of an effort to build a network of researchers working on <u>collective actions</u> from the perspectives of philosophy, neuroscience, developmental psychology, and experimental economics.]

The workshop will to explore the links between (top-down) views and concepts stemming from game-theory, when accounting of cooperation and coordination, and the (bottom-up) study of actual psychological mechanisms underlying the emergence of coordination, cooperation and social skills in children. Its aim is to assess the prospects and possible benefits involved in combining both types of approaches.

How does the ability to intentionally coordinate actions with others develop and what kinds of representations sustain joint action in young children? What are the roles played by joint engagement with adults (where adults actively scaffold joint activities), by the inculcation of norms of social behavior, and by pretend-play (for instance, the early simulation of trading activities) in the development of coordinated joint action? What role does language play in sustaining these activities? How do the development of the capacity for joint action and the development of theory of mind relate?

What are the minimal representational skills needed for initial engagement in joint action? How does the acquisition of more sophisticated representational skills relate to the ability to engage in more complex forms of joint actions, including the planning of future joint actions? Do we need to postulate dedicated mechanisms for shared intentionality or can it be the product of more basic and individualistic processes?

Are children indiscriminate cooperators? If not, what are the principles that guide their choice of cooperation partners? How do children react to free riding, defection, deception or uncooperativeness? What role do social emotions play in shaping future social interactions in repeated encounters with the same partners?

At this juncture, experimental economists have become increasingly interested in behaviors relating to the emergence of social norms, morality, cooperative and coordinative abilities, and one of the main tools for examining these issues has been game theory. Experimental game theory is flexible enough to permit the design of protocols accessible to young children and eliciting their nuanced repertoire of pro-social or self-centered behaviors in stylized collective settings.

Even though developmental psychologists have investigated similar topics for decades, the interconnection between the two disciplines has been scarcely (let alone systematically) explored. Adopting a game theoretical perspective promises to open novel avenues to investigate the development of joint intentionality, joint action, and socio-economic skills in children using a novel theoretical and methodological perspective. Developmental psychologists can contribute their knowledge about the ontogenesis of social abilities, while gametheorists can bring forward concepts (such as team-reasoning) and fine-tuned experimental protocols to investigate the roots, development and varieties of mechanisms that support cooperation and coordination in the human social and economic world.

<u>Invited speakers</u>:

Stephen Butterfill (Univ. of Warwick)

Emmanuel Dupoux (LSCP, Paris)

Natalie Gold (Univ. of Edimburg)

Monika Gummerum (Univ. of Plymouth)

Dale Hay (Cardiff University)

Monika Keller (Max Planck Institute for Human Development, Berlin),

Felix Warneken (Harvard University)

This exploratory workshop aims at fostering exchanges and interactions between participants from different fields: developmental psychology, game theory, philosophy of action. Attendance is restricted to invited participants.

The format will be as follows:

Each session will last 2 hours, with 1 hour for presentation, 20 minutes prepared comments and 40 minutes general discussion. The venue will be in central Paris.

We will of course take care of your travel and accommodation expenses. We will get back to you in early September regarding all practical matters.

If you have further enquiries, do not hesitate to contact us.

Have a very nice summer!

We are looking forward to your visit,

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