Worshop: The challenge of social cognition

Summary

1. What's the challenge of social cognition for Cognitive Systems?

It's not only to pay attention to the fact that cognitive systems are also social systems, but to consider to what extent being social systems conforms and constraints their cognitive architectures and capabilities. Knoblich's talk nicely showed that even non social tasks are addressed differently when in a social set; he also made clear different cognitive mechanisms for social coordination.

2. How to address the challenge?

It's important to acknowledge the diversity of social interaction, from motor entrainment to shared action; different mechanisms may allow for different kinds of interaction. The dyadic, face to face, joint-attentional, reciprocal interaction may play the role of paradigmatic case, though. When considering artificial cognitive systems, different architectural requirements may be required to account for this diversity. In any case, it is clear that social interaction of any kind relies on the ability to notice the sutle timing of bodily movement, coordination and contingencies.

3. Human-computer interaction

The "social" interaction between natural and artificial cognitive systems is a specially relevant ground of exploration. In this regard, it is particularly important to understand how the "illusion of interaction" arises (for humans), how the illusion of reciprocity depends upon an interplay of facial and bodily cues. A social Turing game make made sense in this regards. Ethical issues arise in this context, as underlined by some talks.

4. Participatory sense-making

Several talks presented an enactivist approach to dyadic interaction, according to which no internal propositional attitudes need to be posited to account for intentional interaction is achieved. Notions from complexity theory and dynamic systems are enough to account for the coupling of the behavior of several agents, and how the dynamics of the interaction can involve agents in the pattern. This is called participatory sense-making. Doubts were raised as to whether this dynamic patterns can account for the kinds of cognitively mediated social interactions.

4. Modelling social interaction

Some talks presented efforts at modelling social interaction. In addition to timing –of own movements in relation to movements that happen-, attention-based approaches and emotional feed-black mechanisms were also introduced. Naturalistic scenarios were considered and individual differences in social settings were shown relevant. Complex social networks were also considered, as a tool to understand the dynamics of social interaction at a group level.