

Theory of Mind, false-belief tasks and their relevance to artificial intelligence

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Social intelligence is the ability to understand others and the social context effectively and thus to interact with other agents successfully. Research has suggested that Theory of Mind (ToM) may play an important role in explaining social intelligence. The strength of a human child's ToM is often tested using false-belief tasks.

Creating socially intelligent artificial agents, e.g. robots, has turned out to be an extremely complicated task. We need to seek inspiration in human social intelligence and consider how human social reasoning can be formalised and hence implemented on a computer. Here it becomes relevant to consider how ToM can be formalised and implemented in artificial agents, and to test such agents using false-belief tasks.

In my talk I will present my work on logical formalisations of ToM, on artificial agents passing false-belief tasks, and more generally on the social intelligence of artificial agents.