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Title: “Micro-foundations of problem solving: What determines how individuals search?”

Abstract des Vortrags:

I present two experimental studies on individual search and problem solving. So far research has mainly addressed the strategic distinction between exploration and exploitation at an organizational level, and has done less to disentangle the heterogeneity of individual level processes. In the first study we therefore examine how individuals search and what individual antecedents determine search behavior. Combining data collected from individuals solving an experimental task with a quantitative survey we present evidence that varying individual cognitive styles not only explain how individuals create different outputs but also how different styles translates into a continuous lower propensity to engage in various search behaviors during the ongoing search process. Moving beyond isolated individual search, I present another study where we examined players’ social learning strategies when faced with a highly complex, real quantum physics problem (through a gamified interface on www.ScienceAtHome.org). We replicate former studies showing how individuals adapt their search based on feedback; negative feedback induces larger search distances, while positive feedback translates into smaller, more conservative moves. Furthermore, we show how these adaptive mechanisms also applies to social learning. Overall, the studies aim to shed further light on the individual micro-foundations of problem-solving behavior.