

“Gießener Abendgespräche Kognition und Gehirn“

mittwochs, 18.00 bis 20.00 Uhr, Raum F009

30.10.2013

“What is it to know a logic? Some illustrations from the syllogism.”

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Multiple logics are necessary for modelling cognition: classical, deontic, nonmonotonic,... [Stenning and van Lambalgen, 2008]. [Stenning and Yule, 1997] showed how syllogisms may be ‘correctly solved’ either using small changes in the tactics of nonmonotonic reasoning, or by making a conceptual change to classical logic. For the psychology of reasoning, the most important questions are not whether people ‘get the correct answer’ to these peculiar problems, but what is the conceptual basis for their judgements, because it is the conceptual basis that will determine how their reasoning generalizes to important problems. Classical logic is a model of the discourse of demonstration and dispute. The conventional draw-a-conclusion’ task for syllogisms encourages nonmonotonic ‘what is the author’s intended model’ reasoning. We report an experiment designed to shift the conceptual basis of subjects’ reasoning in the direction of classical logic by staging the subjects’ judgements as contributions to a dispute. What we see in the results is a dramatic change in the patterns of judgments from those engendered by the conventional task. We therefore argue that the long literature on syllogisms starting with Störring in 1908 has not, as it supposed, studied them interpreted as a fragment of classical logic. And when they are so studied, the results indicate that subjects do have striking access to classical concepts, although they still have formidable tactical problems.