

# **Gießener Abendgespräche Kognition und Gehirn**

Mittwoch, 18.00 bis 20.00 Uhr im Philosophikum I, Raum F5

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## **Neuroscientific Insights into Human Reasoning**

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Reasoning is one of our key competencies, as it enables the navigation in our environment, as well as the structuring and interpretation thereof. Reasoning tasks are commonly subdivided into relational, conditional or syllogistic task types. But how do we go about making inferences and drawing conclusion? There are multiple theories aiming to explain the cognitive mechanisms underlying reasoning that make (partly) contradicting predictions about the neural activation during the process of task solving. We conducted meta-analyses of neuroimaging studies on reasoning to clarify the underlying activation patterns and subsequently arrive at conclusions about the cognitive processes involved. We found that each of the three task types is accompanied by a distinct neural activation pattern, suggesting diverging underlying cognitive processes involved in solving the tasks. The results are discussed in relation to current theories on human reasoning, as well as lesions studies, brain stimulation and cognitive modeling.

*Alle Interessierten sind herzlich willkommen!*