

“Gießener Abendgespräche Kognition und Gehirn“

Mittwochs, 18.00 bis 20.00 Uhr, Raum F009

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„What Are You Doing When You're Not Doing the Task? Modeling Distraction“

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When we get distracted, we may engage in mind-wandering, or task-unrelated thinking, which tends to impair performance on cognitive tasks. On the other hand, mind-wandering has also been related to creativity and insight. To determine how mind-wandering affects task performance, it is important to make explicit computational models of task-unrelated thinking. We built a cognitive model in which a task-based attention goal competes with a mind-wandering goal, and in which mind-wandering is modelled as an episodic memory process. We tested this model by predicting performance on tasks used in experimental studies of mind-wandering. We showed that we could both predict task performance and participants' responses to questions about what they were thinking about. This improved understanding of mind-wandering could be used in the future to revise our models of when, how, and why distraction occurs. For example, our model could be used to examine how the effect of distraction on task performance depends on the type of mind-wandering (e.g., rumination versus day-dreaming).