

“Gießener Abendgespräche Kognition und Gehirn“

Mittwochs, 18.00 bis 20.00 Uhr, Raum F009

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“Children’s sequential information search is sensitive to environmental probabilities”

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We investigated 4th-grade children’s search strategies on sequential search tasks in which the goal is to identify an unknown target object by asking yes-no questions about its features. We used exhaustive search to identify the most efficient question strategies and evaluated the usefulness of children’s questions accordingly. Results show that children have good intuitions regarding questions’ usefulness and search adaptively, relative to the statistical structure of the task environment. Search was especially efficient in a task environment that was representative of real-world experiences. This suggests that children may use their knowledge of real-world environmental statistics to guide their search behavior. We also compared different related search tasks. We found Positive transfer effects from first doing a number search task on a later person search task. In ongoing research, we are studying information search in contexts in which both simple heuristic strategies and simple optimal models are unable to identify the most efficient search procedures. Key issues include the circumstances under which people can identify globally efficient search strategies, and how heuristic strategies or learning experiences contribute to this process.