

# **Foundations of search behavior, beyond the exploration-exploitation trade-off**

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## **Abstract**

We investigate the cognitive micro-foundations of individual search. The aim of this study is to identify important cognitive antecedents of the heterogeneity of individual level search behavior. We introduce a problem-solving task that not only requires a binary trade-off between either exploration or exploitation, but solicits the individual to understand the underlying problem structure in order to be able to optimize the search. Combining data collected from individuals solving this experimental task ( $N = 407$ ) with a quantitative survey of cognitive styles as well as a neuropsychological test of cognitive ability (g-factor) we explain how different cognitive micro-foundations translate into substantial variation in search behaviors.