

# **Intuitive system control: Challenging the standard model of dynamic decision making**

**Wolfgang Schoppek**  
University of Bayreuth

**Abstract:** Dynamic decision making (DDM) is usually operationalized in a way that subjects explore and control computer-simulated dynamic systems consisting of interconnected variables. Most authors in the field agree on a “standard model of DDM” that assumes that decision makers have to learn the causal structure of the system through appropriate explorative behavior before they can bring the system to given goal states. This strategy draws heavily on cognitive resources, such as working memory. The standard model predicts that performance in DDM, as well as structural knowledge should be severely impaired when a second cognitive task has to be executed while exploring the system. An experiment with a dual task as the main factor revealed no differences in knowledge and performance between the conditions. Participants in both conditions appeared to rely on rudimentary structural knowledge and adopted intuitive strategies. We interpret the findings within a dual processing framework.