



**University of
Zurich^{UZH}**

Department of Economics – Neuroeconomics Seminar

October 26, 2023 17:00 - 18:00

Otto Ross

Cognitive Effort and Decision-making: Integrating Computational, Behavioral, and Physiological Approaches

Our ability to perform tasks is constrained by our limited mental resources, which mandates that people should minimize use of cognitively "effortful" processing when possible. Recent theories posit that decisions to expend effort are governed by a cost-benefit tradeoff, whereby the potential benefits of effort can offset its perceived costs. I will present a series of recent, computationally-informed experiments combining computational modeling and behavioral experimentation to gain critical insights into understanding when and why we allocate—or withhold—cognitive effort, both from an individual differences perspective, and at the level of the task by examining the effect of changes in costs and benefits. Further illuminating these questions, we leverage psychophysiological measures such as pupillometry, and facial EMG to examine cost-benefit effort valuation as well as concurrent effort expenditure. Highlighting the usefulness of these measures, I will also describe new work examining how physiological markers of online effort expenditure can be used to understand cognitive demand avoidance in the context of risky decision-making, shedding new light on 'how we decide how to decide.' Taken together, these lines of work illustrate how our decisions to deploy effortful cognitive processing can be understood in a decision-theoretic framework.

Zoom Link:

<https://uzh.zoom.us/j/66083933314?pwd=SnpXTCswQ05DSGtCTTc3OTRTMVBRdz09>

Meeting ID: 660 8393 3314