



**University of
Zurich** ^{UZH}

Department of Economics – Neuroeconomics Seminar

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Why not try harder? Computational approach to motivation deficits in neuro-psychiatric diseases

Motivation deficits, such as apathy, are pervasive in both neurological and psychiatric diseases. Even when they are not the core symptom, they reduce quality of life, compromise functional outcome and increase the burden for caregivers. They are currently assessed with clinical scales that do not give any mechanistic insight susceptible to guide therapeutic intervention. In this talk, I will present another approach that consists in phenotyping motivation states by fitting computational models to the behavioral responses made by patients in choice, effort, and/or learning tests. Ideally, fitting computational models to patients' behavior would allow inferring of the dysfunctional mechanism in both cognitive terms (e.g. hyposensitivity to reward) and neural terms (e.g. lack of dopamine). This computational approach may therefore not only give insight into the motivation deficit but also help personalize treatment.