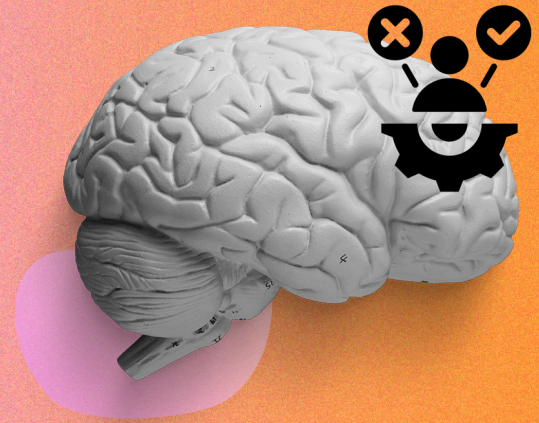


Gamify a Decision-making Experiment

to investigate the links between altered
reward learning and symptoms of
psychotic disorders



Goal:

The goal of this research project is to set up and implement a gamified online experiment to investigate how alterations in decision-making, especially reward learning contribute to the formation of positive and negative symptoms in psychotic disorders.

Background:

Psychotic disorders include a number of severe mental disorders, such as schizophrenia, which affect the way people perceive reality, think, act, and relate to others. Alterations in reward learning and decision-making are one of the most robust findings in psychosis research. But still, research findings of how specific alterations link to symptoms and change with disease progression are inconsistent. One possible reason might be the effect of reward contingencies, environmental volatility and task instruction. The current study aims to investigate the impact of such factors on reward learning and decision-making in general in a large community sample with subclinical score and in patients with psychosis.

Tasks:

- Set-up and gamification of an experimental design (i.e., Markov Two-Step task, Reversal Learning task) using common software for online studies (e.g., Jatos, PsychoPy)
- Piloting of the experiment on platforms designed for online data collection (e.g., Prolific)
- Creating a data structure for organizing and processing large amounts of data
- Open science documentation of the project (e.g., set-up of a GitHub repository)

Requirements:

- Fluent in German or English
- Knowledge of programming languages, such as jsPsych, Python or JavaScript
- Interest in methods and research questions of neuroscience

Contact:

If you are interested and would like more details on the project, please contact franziska.knolle@tum.de. See <https://franziskaknolle.com> to explore the work of our group.

