HANDS-ON PSYCHOPY

This lecture focuses on how to set up an experiment in PsychoPy and record data using a GazePoint eye tracker. With example experiments we will show how to build an experiment and then include the recording of eye-tracking data. In this introduction to Psychopy we will show the Builder as well as the Coder view. Pros and cons of both options will be discussed.

The following steps of setting up an experiment will be included:

1. preparations (e.g., setting up the monitor, etc.)

2. experiment structure
   ● assess demographic data
   ● display instructions
   ● organization of blocks and trials of the experiment
   ● create logfiles

3. trial structure
   ● fixation cross
   ● presentation of stimuli (e.g., picture, objects, text, etc.)
   ● presentation duration and location
   ● assessment of behavioral data (e.g., key presses, response times, mouse movements)

4. implementation of eye tracking
   ● calibration and validation
   ● data recording

Attendees require no prior knowledge, although some experience with programming experiments. This lecture is connected to the other Winter School lectures by focusing on setting up an experiment after learning about experimental design in general. Further, we will see how the programming is related to logfiles of the data that need to be processed and analyzed in the next step.

Hands-on Session

In the hands-on session, students will change example experiments to get more familiar with PsychoPy. Further, they will build simple eye-tracking studies and collect some data from other attendees.

Dr. Nina Gehrer

Nina Gehrer is a postdoctoral researcher at the Department of Clinical Psychology and Psychotherapy at the University of Tübingen, Germany. She received her MSc in 2015 and completed her PhD in 2020. Her primary research interest focuses on biases in (social) information processing associated with psychological disorders (e.g., antisocial personality disorder, attention deficit hyperactivity disorder, eating disorders, etc.). In this context, she designed and conducted several eye-tracking studies over the last years. She gives courses in clinical psychology at the University of Tübingen and was co-presenter of tutorials on experimental design and gaze analytics at the ACM Symposium on Eye Tracking Research & Applications (in 2018, 2019, 2021, and 2022).