

Before we start...

Please make sure you have **downloaded PsychPy!**

<https://www.psychopy.org/download.html>

Introduction to PsychoPy

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What is PsychoPy?

- Experiment builder with options for online and in-lab testing
- Easily create experiments using either a GUI or written code!
- Python based
- Can often create experiments without writing any code at all

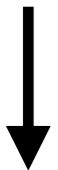


Why use PsychoPy?

- Specifically built for behavioural science experiments
- Very precise timing (important for reaction times, psychophysics, eyetracking, fMRI etc.)
- Easy integration with Pavlovia
- Supports many different stimulus types (text, images, videos)
- FREE! Promotes open science

Building Blocks of an Experiment

Stimuli (i.e. words, images, etc.)



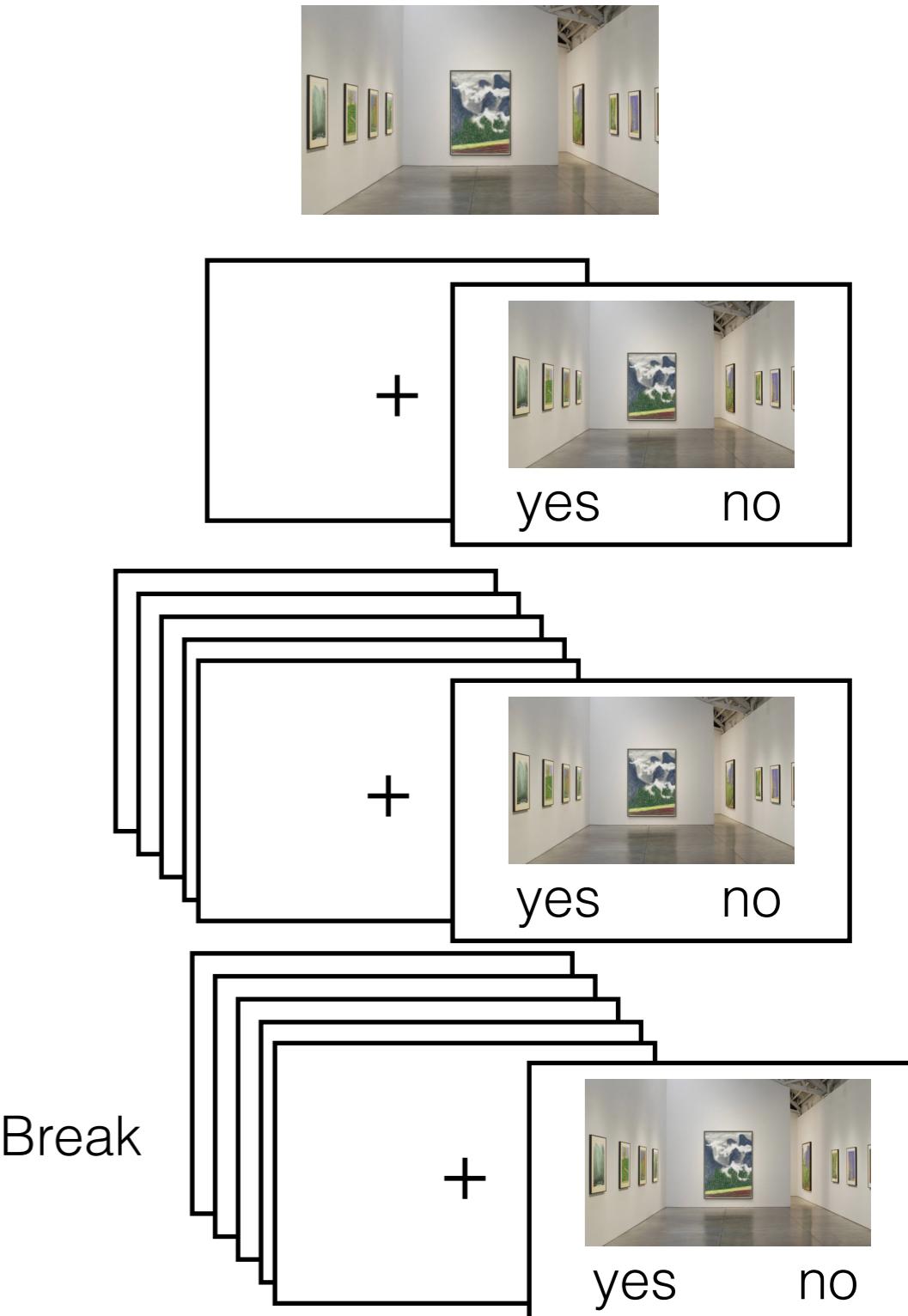
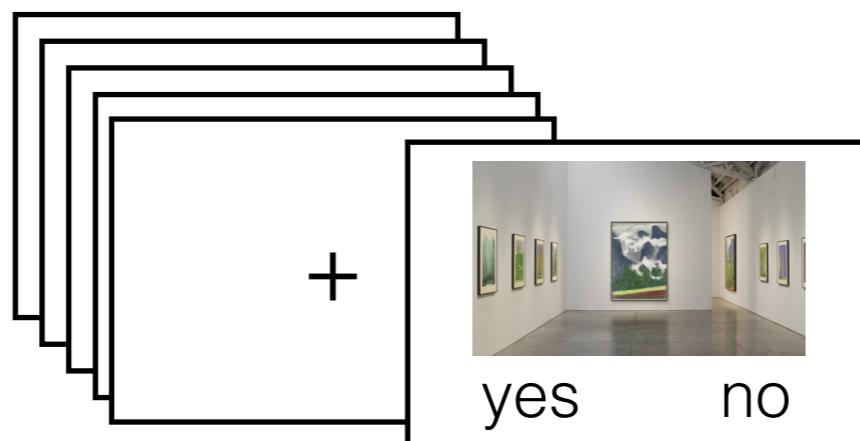
Trial



Block



Experiment



The PsychoPy GUI builds up
these components hierarchically
into an experiment

PsychoPy Tour

The screenshot shows the PsychoPy software interface. At the top is a toolbar with various icons for file operations, routine creation, and component selection. Below the toolbar is a header bar with tabs for "Routines" and "Components". The "Routines" tab is active, showing a list with one item: "trial". To the right of the list is a timeline labeled "t (sec)" ranging from 0 to 11. The "Components" tab is also visible, displaying a grid of icons for "Favorites" (Keyboard, Image, Mouse), "Stimuli" (Slider, Sound, Text), "Responses", "Custom", "EEG", "Eyetracking", and "I/O". On the left side, there is a "Flow" editor window with a red border. It contains a "Insert Routine" button and a "trial" block connected by an arrow. Below the "Flow" editor is a "Insert Loop" button.

Routines

Components

trial

0 1 2 3 4 5 6 7 8 9 10 11 t (sec)

Keyboard Image Mouse

Slider Sound Text

Stimuli

Responses

Custom

EEG

Eyetracking

I/O

Flow

Insert Routine

trial

Insert Loop

Timeline of your experiment

Create new trials (aka routines) and blocks

PsychoPy Tour

The screenshot shows the PsychoPy software interface. At the top is a toolbar with various icons for file operations, Python code, and experiment setup. Below the toolbar is a timeline labeled 'Routines' containing a single routine named 'trial'. The timeline shows a horizontal axis from 0 to 11 seconds. To the right of the timeline is a 'Components' palette divided into sections: Favorites (Keyboard, Image, Mouse), Stimuli (Slider, Sound, Text), Responses, Custom, EEG, Eyetracking, and I/O. At the bottom left is a 'Flow' section with buttons for 'Insert Routine' and 'Insert Loop'.

Routines

trial

Components

0 1 2 3 4 5 6 7 8 9 10 11 t (sec)

Flow

Insert Routine

Insert Loop

trial

Favorites

Keyboard Image Mouse

Slider Sound Text

Stimuli

Responses

Custom

EEG

Eyetracking

I/O

Create trials here

Define exact timing and add components based on your experiment

PsychoPy Tour

The screenshot shows the PsychoPy software interface. At the top is a toolbar with various icons for file operations, routine creation, and component insertion. Below the toolbar is a 'Routines' panel containing a single routine named 'trial'. A timeline below the routines panel shows a horizontal axis labeled 't (sec)' from 0 to 11. In the main workspace, there is a large empty area. To the right is the 'Components' panel, which is highlighted with a red border. The Components panel is organized into sections: Favorites (Keyboard, Image, Mouse), Stimuli (Slider, Sound), Responses (Text), Custom, EEG, Eyetracking, and I/O. Each section contains an icon and a label. At the bottom of the interface is a 'Flow' panel with buttons for 'Insert Routine' and 'Insert Loop'.

Components are added to routines (trials)

Many options, including response buttons, images, sound, movies, etc.

Let's build an experiment!

Experiment with 2 task:

Stroop Task

Scene Task

Stroop Task

Green

Scene Task



indoor

outdoor

Let's build an experiment!

Stroop Task

x5

Scene Task

x5

Let's start building!

Gather your stimuli (I've gathered them for you)

Create a folder with the name of your experiment

Open PsychoPy!

Challenge

Put words on the screen (i.e. indoor/outdoor for scene)

Add instructions before the experiment starts