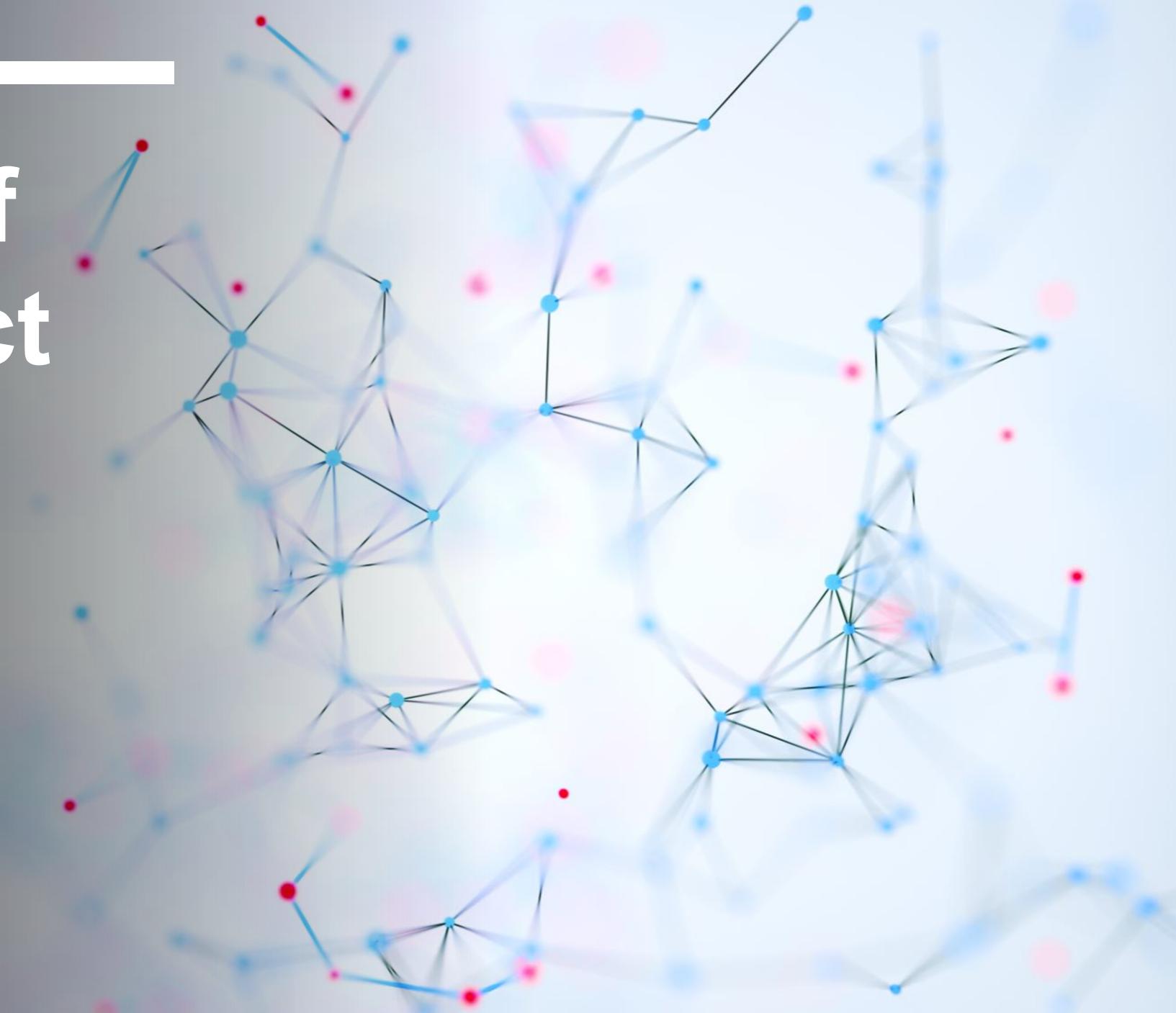


Overview of Final Project

Abby Hsiung & Ben Muzekari

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Moving onto PsychoPy...

You will all now start the process of building your own behavioral experiments!

We would like for you to work in pairs! We can choose the groups or you can.

Over the next 7 weeks we will be focusing on the specific skills you need to build tasks and provide class time to work on your final projects.

Two Major Components

Experimental Proposal

- Identify study extension or replication
- Write brief introduction, statement of key aims and hypotheses
- Identify the predictor and dependent variables in task
- Create flow chart of task design

Final Paradigm

- Collect any stimuli you might need
- Code up and comment task design (this will be your final document)
- Collect data from 3 pilot participants (use each other!)
- Present preliminary findings

Experimental Proposal

1. Identity study extension or replication

We want you to take a study that you've recently read throughout this semester and create an extension or replication of that study. We are going to limit our behavioral paradigms to tasks that can be run in *humans*.

Replication: Recreate a study exactly as specified in the original task.

Extension: Recreate a study but change a few key variables to extend the scope of the scientific question (e.g., add different rewards, change the difficulty).

Experimental Proposal

2. Write brief introduction, statement of key aims and hypotheses

To help contextualize your study, we'd like you to include a 1-page (single spaced) document that specifies:

1. Background/Introduction of your topic and the current gaps in the literature
2. The specific research question you are going to address
3. The importance of the the research question
4. The key hypotheses or expected outcomes of your study

**Notes:

- You may use the original research article for reference and inspiration but all of the words you write and submit need to be your own.
- The background/introduction of prior literature does not need to be extension – max 3 citations (in addition to the original study)

Experimental Proposal

- 3. Identify the predictor and dependent variables in task**
- 4. Create flow chart of task design**

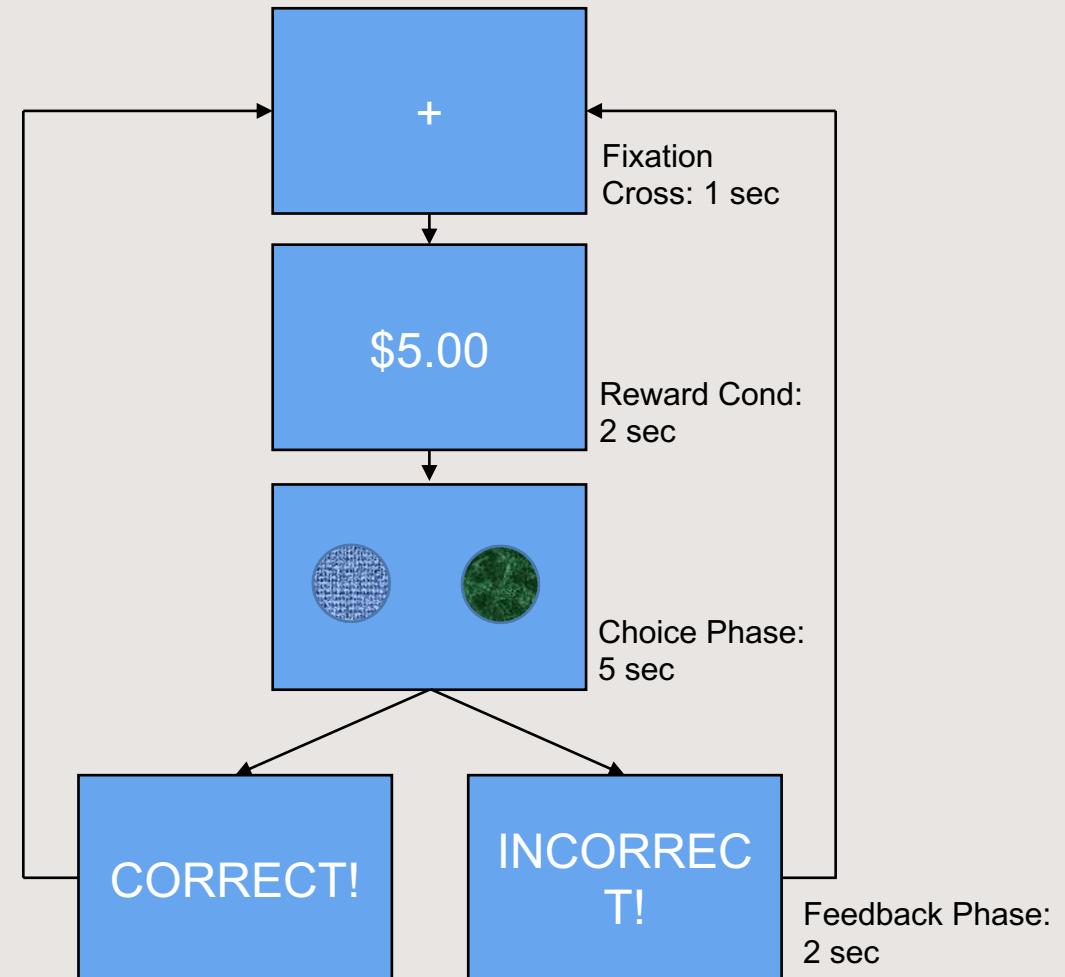
To help organize your plan of attack, after your 1-page document, you will include another document (can be separate or in the same file) where you will specify:

1. All of the variables and elements included in your task
2. A diagram of how your task will run (see examples)

Example Variables to take Note of:

1. All Independent and Dependent variables
 - E.g., Choices, RT, reward conditions, outcome uncertainty, emotional manipulation, etc.
2. Task Timing Variables
 - E.g., stim on screen for X sec, participant had Y sec to respond, etc.
3. Number of trials and trial types
 - E.g. 48 trials; 24 high reward, 24 low reward

Example Diagram:



Final Paradigm

1. Collect any stimuli you might need

If your design called for stimuli (pictures, buttons, specific text, etc.), collect and document stimuli.

Includes:

- Organize spreadsheet of stimuli name, “type” and other important information
- Most likely some standardization (file naming + sizing, colors, etc.)
- Creating place to house stimuli so python can access them
- Creating instructions for to tell your participant what they will be doing

Final Paradigm

2. Code up and comment task design (this will be your final document)

Your final document will be the python files you use to actually run your task.

In addition to the code itself, the files must be well commented/documentated. As a check, you should be able to read and understand the code produced by each other.

You should also include a note on how the output files are organized.

Final Paradigm

3. Collect data from 3 pilot participants (use each other!)

4. Present preliminary findings

To make sure your task is running, you will pilot it on three other members of your cohort.

In addition to the behavioral output file, you will also collect qualitative data from your pilot participants (e.g., How did the task feel to you? Were there any confusing parts?)

We will work together to help present some of your preliminary findings to the group!

Important Dates

Experimental Proposal:

- Due October 29th
- Uploaded onto Google Drive

Final Paradigm:

- Due December 3rd
- Uploaded onto Google Drive