**Adaptive Stroop Instructions**

**Setup**

- Turn on or wake up each experimental computer

- Click the folder icon on the left, then navigate to

Data (on left) -> CURRENT\_PROJECTS

- Double-click on "RunaStroop3.sh". Be sure to only double-click once, or right-click and select "run"

**After Participant Arrives**

- Ask participant for their SONA ID number, and write it down so you can give them credit. Don't give credit until they complete the experiment, so they are more motivated to follow task instructions

- Explain to participants that you will now explain the task, after which they will be asked to read a consent form and will then begin the experiment.

- Draw the example stimulus display on the board - four boxes arranged in an arc and labeled 1, 2, 3 and 4 from left to right. Then walk through a couple example trials:

"You will see a string of numbers in the center of the screen, ranging from 1 to 4 in length. Your job is to count how many numbers are presented and look at the corresponding box. For example, if you see 33 [draw "33" on the board under the boxes] you should look at box 2 as quickly as possible [point to box 2]. Or if you see 222 [erase "33" and draw a "222"] look at box 3 [point to box 3]. In the cued box there will be a letter that is flashed briefly, and your job is to report the letter you see by typing it on the computer keyboard. For example, here you should look at box 3, and if you look quickly enough you will see a letter there [draw a "G" in box 3], so you would then type "g" on the keyboard. After making your response it will indicate whether you got the answer correct or incorrect.

You will do this simple task repeatedly. It will be easy to see the letter at first but will get more difficult over time. We hope you can look at the correct box as quickly as possible so as to see the quickly flashed letter, but sometimes you might miss it in which case you should make your best guess. Keep in mind that you should be counting the number of digits; the actual numbers shown will not help you, so do your best to focus on the number of digits rather than the particular digits themselves. The program will invite you to take several breaks, and the experiment should last about 30 minutes total. I will be here to answer any questions you have as you do the experiment, and when the program says the experiment has been completed please come back out here."

**After Participant Finishes (debriefing)**

After they exit, ask them to have a seat in the main lab area and debrief them on the purpose of the experiment.

"Although your job was to count the numbers and ignore what they said, people can not help but to read the numbers, and doing so will interfere with your ability to count the digits. For example, you are probably faster to look at box 3 when you view "333" than "444", as you automatically read and process the digits themselves. This is called the Stroop effect, and our goal is to develop more accurate ways of measuring the size of this effect across different people, as people's ability to not let the digit names interfere with their task is a core cognitive process that may be related to many other aspects of our thinking abilities."

**After Participant Leaves**

- Give those that showed up credit on SONA, and mark others as absent

- Press "q" on the experimental computers to exit the experiment. Then put the computers to sleep (menu at top-right).