Probabilistic Categorization Experiment – Instructions for Research Assistants

- **Before the participant(s) arrive(s)**
    - Log onto SONA to see what participants you have. You also should have received an email the evening before. The study runs under the SONA protocol "Judgment and Choice", and each timeslot is an hour long.
    - Start the computers in Ubuntu if needed. There is a single log-in user at the moment, either labeled 'shop' or 'admin'
        - The password is "Cerberus427!!" (no quotes).
    - Determine which computers the participants will be sitting in. **We will run a maximum of 6 participants at a time.**
- **When the participant(s) arrive(s)**
    - Let the participants into the lab.
    - **We no longer need to use physical consent forms. The experiment itself will handle consent.**
        - **Note: if for some reason a participant does not consent to be in the experiment, the experiment will abruptly end, and they can leave. You can still give them credit on SONA.**
    - Find the **next UNIQUE subject number** from the running sheet (clipboard next to the shelves).
    - Tell the participant that the study will take place in the next room, on a computer. Tell them that the computer will walk them through the whole procedure, including consent, instructions, the experiment itself, and debriefing. You will walk them in, start the experiment, and then leave them to participate. They can leave their belongings in the room with you if they wish.
- **Running the experiment**
    - Walk the subject to the computer. Probably bring the clipboard with you so you can easily enter the correct participant #.
    - Start the experiment by double-clicking the icon "line_cat", found on the desktop screen.
        - This will open up the experiment.
        - Type in the participant number. **Do not enter any other numbers (e.g., date, time etc). Please only enter in the participant number.**
        - Also, type in the computer number.
        - All participant instructions are on the computer.
    - Go back to the main lab room and follow these same instructions for any remaining subjects.
    - Add their participant number (and any other relevant info) to the runsheet.
    - **NOTE:** *The participant may ask you questions after reading through the experimental instructions. Here is some general information about the study to help you answer any potential questions:*

        - The experiment takes place in two phases. In the first phase, participants learn about which stimuli belong to a "category". In the second phase, participants use this knowledge to select which of a set of stimuli best belongs to the category.
        - **First phase – Learning Phase**
            - On each trial, the participant sees a single stimulus (a vertical line). They respond using the 'U' key if they believe that the stimulus belongs to the category and the 'I' key if they believe that the stimulus does not belong to the category.
            - They will receive immediate feedback after each choice about whether or not they were correct.
            - Roughly speaking, shorter lines and longer lines are unlikely to belong to the category, while medium length lines are likely to belong to the category.
                - However, this category is *probabilistic*, meaning that even highly representative stimuli are not guaranteed to belong to the category. Unrepresentative stimuli may also sometimes belong to the category.
        - **Second phase – Transfer Phase**
            - On each trial, the participant sees two or three vertical lines. Each has a label under it (J, K, or L). Participants select the stimulus **most likely** to belong to the category.
            - Participants also receive feedback here, being told whether or not they are correct.
- **<u>After the participant(s) is/are done:</u>**
    - See if they have questions. If they mention anything confusing about the experiment, or if they mention **anything that I may want to know about for data analysis, add it to the "notes" section on their row of the runsheet**.
        - Helpful information: We are interested on how the options available to participants affect their choices, even when the stimuli are simple geometric shapes. This gives us powerful control over the actual value of each option.
        - Some helpful information: The purpose of this study is to assess how "irrelevant" options affect people's categorization behavior. For example, given two stimuli A and B which are equally likely to belong to the category, does an unrepresentative stimulus D_A which is similar to A, increase the chances that participants respond A?
            - Don't tell them this exactly (especially in case other participants who are still participating overhear), but tell any curious participants that we are interested in how the options presented affect decision-making, even in very simple cases like this experiment.

            - If they have any further questions about the purpose or the background of the study, please give them my email address and encourage them to reach out!
    - If they want a copy of the debriefing form, give them one. I will not keep many debriefing forms in the lab at once, so if you happen to notice that we are low, let me know. I will also try to keep track of it.
    - When all participants are done, go to their station(s). The browser should be displaying the debriefing or a blank screen. If it shows the debriefing, press the j key and close out of the browser. The computer will have saved their data automatically. You are not responsible for their data being saved.
    - Assign participants credit on SONA. If a participant doesn't show up during the timeslot, give them an unexcused absence. **If they contact you at any point with a reason for not attending, forward their email to psychsona@umass.edu.**
    - Prepare for the next participants.
- **Other notes**
    - **If the participant is still in the experiment at the 1 hour mark, please let them know this and tell them that they are under no obligation to stay. If they choose to leave, that is fine. However, if their staying goes over your availability hours or is taking up a computer that another participant needs, politely ask them to leave.**
        - If this is the case, you will need to manually quit the experiment:
            - 1) press the windows key
            - 2) right click on the terminal window (a black box on the left hand panel)
            - 3) click the "quit" button
                - It may take a few seconds for the experiment to end.
        - If that doesn't work or you're in a time crunch, you can always hold the power button on the computer to manually restart. This isn't ideal, but it works.
    - **Please keep the lab door shut at all times**, to ensure the safety of participants' belongings. ******EXCEPTION: Sometimes we have issues with the lab temperature. If it's excessively warm, please let me know! But also, feel free to keep the door open to stay cool.*******
    - You are not required to stay past your available timeslots. For example, if a participant shows up late enough that you would not have enough time to run them before your availability window ends, please do not run them. Rather, email psychsona@umass.edu explaining what happened, and encourage them to sign up for a future timeslot.
    - Please do not come into the lab if you feel sick! If you feel unwell, contact Sean ASAP.
    - If you need **anything time-sensitive** (e.g., help with computer issues, help with SONA) please contact Sean via the GoogleSpace.
        - For less time-sensitive issues, email is fine.

        - If you can't get into the lab, and Sean isn't available, another grad student may be around to let you in:
            - Michael Tuttle (Tobin 513)
            - Jerome Hoover (Tobin 517)
            - John Vargas (Tobin 517)
            - Mar Nikiforova (Tobin 518)
            - Anna McCarter (Tobin 519)
        - Otherwise check with Jonathan Tominar-Lipari (Tobin 401)
    - Sean is usually responsive to email, but there are times when he has class or meetings and **may be delayed in responding by a few hours**.
    - With any time-sensitive issues, **use your best judgment.**
        - For example, if the computer crashes mid-study (not a frequent occurrence, but possible), simply reward the participant credit, note it on the runsheet, and let the participant leave.