ActeoProject

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| Rooms: D and F  Noise Canceling Headphones Required  Paid Subjects  Programs: Matlab  \*Remember: If an error appears (it will be in red) either copy it, take a screenshot, or take a picture and send it to Seth or me immediately. |

### Before the experiment…

1. Present the **consent form** and inform them:
   1. “Today you will be running in an experiment that takes about an hour and half to complete. You will receive $10/hr as compensation for your participation”
   2. “First, you will take either a placebo or an acetaminophen solution. This is a double-blind study, so I do not know which solution you will be taking”
   3. “You may withdraw at the study at any time without any penalty.”
2. Make sure that you and the participant sign and date the consent form correctly.
3. Fill out the run sheet with all the information that it requests
4. Ask the participant if they need to use the restroom because the task will last 1.5 hours and there will be no breaks
5. In Matlab, go to: S:\maddoxlogin\SubjectRawData\Experiments\AcetoProject
   1. Type in “ExpMaster” into the command window
   2. Enter in the correct Subject Number (not walkin), condition number, and feature number for that participant.
   3. (As a side note, make sure you exit out of the editor or workspace window in Matlab if it pops up before inputting info into the command window).

### Part 1: Drug Administration

1. After you set up the participant on the task there will be a few questions about their medication usage and drug usage for that day.
2. The screen will either tell you to administer the placebo/acetaminophen or to administer nothing and proceed with the task
3. **IMPORTANT:** The first thing that will happen once you run the ExpMaster program are a few screening questions. There will be 3 possible outcomes of the screening:
4. “For the researcher: This subject will be in condition 5”
   1. This means that they have indicated that they are not eligible to take acetaminophen so neither of the bottles should be administered. The subject should then proceed with the experiment as neither a placebo or drug participant. Please note on the runsheet that the subject did not receive either treatment by putting N/A.
5. “Due to either eating or drinking after the allowed times, you are not eligible to participate in the study at this time. Please see the researcher to reschedule or cancel your participation in this study”
   1. This means that the subjects either ate within 3 hours of the study or consumed more than 2 alcoholic beverages in the last 15 hours. They makes them ineligible to participate in the study at the moment, but can reschedule to do so in the future. Please see about rescheduling the experiment.
6. “Please let the researcher know that you are ready to begin the experiment”
   1. This means that the subject has qualified for the study and is ready to move on to the drug administration portion.
7. To exit these screens, press the **ENTER** button.
8. The bottle of the solutions are in the small white fridge in Bethany’s office. Look on the runsheet to see which bottle the participant is supposed to take -- bottle 1 or bottle 2. Give them which ever bottle the runsheet says. It is important that you give the right one, so double check the label on the bottle. Shake the bottle well before handing it to them. Technically both the placebo and the acetaminophen liquids are suspensions so they need to mixed thoroughly. Give them some water to wash it down.

Part 2: Task

1. Immediately after they drink the contents of the bottle take them back to the computer and have them run through the rest of the tasks.
2. For **your** information: the response buttons are counter-balanced between participants, so YOU will not know what buttons correspond to what responses in the task. For this reason, when the subjects are starting the task, **please emphasize the importance of reading the instructions carefully, particularly what the button mappings are.**
3. When running the participant, note all problems, irregularities, or any detail that may affect the data. Make notes on the run sheet of the experiment and let Seth or Bethany know.
4. The task design is:
   1. Stroop 1
   2. Affective Flanker 1
   3. Stroop 2
   4. Affective Flanker 2
   5. Questionnaires
   6. BREAK
      1. The total time between the first stroop task and the category learning tasks must be at least 60 minutes. If it has not been, a screen with a timer will appear here counting down a “break” time for the participants”. They may resume the task once this timer is done. We would like for everyone to be as close to 60 minutes as possible.
   7. Category Learning Task 1
   8. Category Learning Task 2

Part 3: Payment and Debrief

1. Get them to sign and date receipt form. Remember to fill out the whole receipt form before going to the get the cash to compensate the participants as always.
2. Debrief:

“In this experiment, we are looking at the effect of serotonin on learning and working memory. You were administered either acetaminophen or a placebo solution and then asked to perform a few different tasks. Acetaminophen is thought to be part of the serotonin regulation system, so we are investigating the indirect effect acetaminophen may have on behavioral systems that rely on serotonin. The first two tasks, the stroop and affective flanker, are measures of working memory ability. Particularly, they examine your ability to focus on relevant information and inhibit irrelevant information. We are interested to see if acetaminophen affects your ability to filter the irrelevant information, especially if that information is emotional in nature as it is in the affective flanker task. The next tasks you performed were category learning tasks. Research has shown that individuals possessing different serotonin related genes demonstrate different learning rates for category learning tasks that follow a rule based design versus a more information-integration based design. In short, we are looking at differences in explicit and implicit processing that may be affected by indirectly manipulating serotonin in the brain.

Thank you for your participation. Please do not drink alcohol or take any drugs containing acetaminophen for the next 3-4 hours.