

Instructions

PART 1 - Prep and Introduction (10-15 minutes):

EXP 1 and EXP 2: *Prepare computers, label seats, and have ready a list of confirmed subjects. Have ready consent forms with Items Sheet attached to front. Place a pen at each table. Lay out one serving of each type of food on the counter in the waiting area. The food items should be labeled both by their name and by the image that will represent them during the experiment.*

EXP 1: *Call in subjects one at a time and check their IDs.*

EXP 1: "Hello and welcome. Before we start we need to ask you when your last meal was. When did you last eat or drink something besides water?"

EXP 1: *Wait for response. If last meal was less than three hours ago, thank them for coming and explain that they cannot participate due to their noncompliance to pre-experiment instructions. If last meal was at least three hours ago, proceed.*

EXP 1: "Today, you will be making choices between bundles of different foods. We want to make sure you like the food items between which you are deciding. Please take some time to look at the different items laid out here and think of which **five** you like the most. Keep in mind that you **may** be consuming some of these foods together in different amounts. The images you see above each food will be the ones you see during the experiment. This is **NOT** part of the experiment -- please pick the food items that you are most interested in eating."

EXP 1: *Give subject a few minutes to survey the foods.*

EXP 1: "Have you chosen your five items?"

EXP 1: *In the case that they have not chosen their items, wait another couple of minutes. Otherwise, continue.*

EXP 1: "Please let me know which items you have chosen. Would you enjoy eating any combination of these items? Again, this is **NOT** part of the experiment but you may be consuming some of these foods together so we want to be sure that you like them."

EXP 1: *After ensuring their choices are indeed desirable in combination with one another, write item names on subject's Items Sheet.*

EXP 1: "Attached to this sheet is a consent form. As you wait for the experiment to begin, please read the form and sign the last page to consent."

EXP 1: *Direct subject to their seat.*

EXP 1: *Repeat above steps until all subjects have been seated.*

EXP 2: *Modify subject's MATLAB code to ensure only chosen items will be displayed during the experiment.*

EXP 2: "Please make sure your phone is off or on silent mode and do not touch anything as you wait for further instructions."

After all subjects have been seated and their MATLAB code modified...

EXP 1: "Dear participants: hello and thank you for coming to this experiment. Today, you will be making choices between bundles of different food items that you like. After you have made your choices, you will complete two short tests and a questionnaire. You will receive food at the end, based on your responses during the experiment. More specifically, one of the choices you make during the experiment will be randomly selected, and, at the end you will receive the amount of food represented in that choice. So, make every choice today as if it were the **ONLY** choice you were making. For example, if your choice of "three chips and two cookies" is randomly selected, at the end of the experiment this is exactly what you will be receiving -- and, eating. You will be given fifteen minutes after the experiment to eat what you receive. You are asked to stay in the waiting area for the whole fifteen minutes. During that time you will have to consume your food items and nothing else. Water will be provided upon request. After that, you will be paid \$20 in cash for your participation. You may leave at any time during the experiment, but if you leave before the end, you will not receive the full compensation.

Before each part of the experiment, I will be giving you brief instructions. You can ask questions during these times. "

PART 2 - GARP Task (15-20 minutes):

EXP 1: "Now, you will be choosing between different combinations of food items displayed on your computer."

EXP 1: *Show sample screenshot.*

EXP 1: "Here is a sample of what your screen may look like. This is a screenshot for someone that had chosen - *say what the items are* - in the beginning. The **only** foods you will see on your screen are the ones you chose in the beginning. Similar to here, you will always have a choice between two combinations: one shown on the right side of the screen, and one shown on the left. If you like the combination shown on the *right* side more, tap the right side of the computer. If you like the combination on the *left* side of the screen more, tap the left side. You cannot tap both sides at once. Remember to make every choice as if it were the **ONLY** one that counted because you will be receiving exactly one of your choices at the end. For example, if I were to tap the left side, there is a chance that I will receive and eat - *say what the foods and quantities of each food are* - at the end.

The experiment is broken down into four parts. You will be making about 35 such choices in each part. When you are done with each part, a screen that reads 'Break' will appear. Please do not touch your screen at that time, but wait for instructions from me to proceed. We will always wait for everyone to finish a part before moving on.

Raise your hand if you have any questions now."

EXP 1: *Look around for raised hands and answer any questions that may arise.*

EXP 1: "Let us proceed with Part 1 of the experiment. Remember, when you are done with this part, a screen that reads 'Break' will appear. Do not press anything but wait for further instruction from me at that point. Remember to make every choice as if it were the **ONLY** one that counted

because you will be receiving exactly one of your choices at the end. Tap the screen to begin the experiment."

EXP 1: Wait until everyone has completed Part 1. Wait 30 seconds after the last person has finished.

EXP 1: "Now we will move on to Part 2. As before, tap the side of the screen displaying the combination you like more. When you are done with this part, a screen that reads 'Break' will appear. Do not press anything but wait for further instruction from me at that point. Remember to make every choice as if it were the **ONLY** one that counted because you will be receiving exactly one of your choices at the end. Tap the screen to begin."

EXP 1: Wait until everyone has completed Part 2. Wait 30 seconds after the last person has finished.

EXP 1: "Now we will move on to Part 3. As before, tap the side of the screen displaying the combination you like more. When you are done with this part, a screen that reads 'Break' will appear. Do not press anything but wait for further instruction from me at that point. Remember to make every choice as if it were the **ONLY** one that counted because you will be receiving exactly one of your choices at the end. Tap the screen to begin."

EXP 1: Wait until everyone has completed Part 3. Wait 30 seconds after the last person has finished.

EXP 1: "Now we will move on to Part 4. As before, tap the side of the screen displaying the combination you like more. When you are done with this part, a screen that reads 'Break' will appear. Do not press anything but wait for further instruction from me at that point. Remember to make every choice as if it were the **ONLY** one that counted because you will be receiving exactly one of your choices at the end. Tap the screen to begin."

EXP 1: Wait until everyone has completed Part 4.

PART 3 - Working Memory Test (10-15 minutes):

EXP 1: "You are done with the decision-making portion of the experiment. We will now begin the first test. This test is designed to measure your short-term memory abilities."

EXP 1: Show a sample image of the 10-by-10 matrix they will be seeing during the experiment.

EXP 1: "During the test you will see a 10-by-10 checkerboard as shown here. Solid black dots will appear, and quickly thereafter, disappear, in some of the spaces. You will see anywhere between two to six black dots appear and disappear in succession. After a short time, the entire checkerboard will disappear, and in its place, an empty checkerboard will appear. You are to tap the spaces of the empty checkerboard where you remember the dots to have been. In this test, it is not important that you accurately recall the positions of the dots; it is more important that you remember the relative positions of the dots. For example, if three dots appeared, one in the top center, one on the bottom right, and one on the bottom left, it would be more beneficial to recall the triangular pattern and recreate it to the best of your abilities, than to accurately remember the position of one of the dots of that triangle. Also, you do not need to remember the order in which the dots appeared - you can tap the spaces of the empty checkerboard in whatever order you like.

If you would like to undo a selection, you can tap the dot to erase it. You will first do two practice trials and then the test will begin.

Are there any questions?

Let us begin the practice trials. Please tap the screen to begin."

EXP 1: *Wait for all subjects to complete practice trials.*

EXP 1: "Are there any questions about this test?"

EXP 1: *Look around for raised hands and answer any questions that may arise.*

EXP 1: "You may begin now."

EXP 2: *Once all subjects have completed the test, collect tablets from subjects and begin preparing their rewards.*

PART 4 - IQ Test (15-20 minutes):

EXP 1: "This next part is a test of perception and clear thinking. We will first do two practice problems to familiarize you with the format of the test and method of thought required.

The top part of the first sample problem is a pattern with a bit cut out of it. Look at the pattern, think what the piece needed to complete the pattern correctly both along and down must be like. Then find the right piece out of the eight bits shown below.

Only one of these pieces is perfectly correct. No. 2 completes the pattern correctly going downwards, but is wrong going the other way. No. 1 is correct going along, but is wrong going downward.

Think about which piece is correct both ways.

No. 4 is the right bit, isn't it? So the answer is No. 4, and you select No. 4."

EXP 1: *Check that everyone has selected "4" for the first sample problem.*

EXP 1: "Now turn to the next page and do the second sample problem by yourselves."

EXP 1: *Allow 20 seconds.*

EXP 1: "The answer is No. 8. See that you have selected No. 8. Have you all done that?"

EXP 1: *Check that everyone has selected No. 8.*

EXP 1: "Is everyone clear about what it is you are to do on this test?"

EXP 1: *Answer any questions that subjects may have.*

EXP 1: "You can have as much time as you like for the rest of the test. You will find that the problems soon get difficult. Whether the problems are easy or difficult, you will notice that to solve them you have to use the same method all the time. Keep in mind, it is accurate work that counts. Attempt each problem in turn. Do your best to find the correct piece to complete it before going on the next problem. If you get stuck, you can move on and come back to the problem later. But remember, in every case, the next problem is harder and it will take you longer to check your answers carefully. When you get to the end of the test, please wait for further instructions.

Are there any questions?"

EXP 1: *Pause briefly. Check that everyone is ready to start.*

EXP 1: "You may begin now."

EXP 1: *Wait for all subjects to complete test.*

PART 5 - Demographic Questionnaire (10-15 minutes):

EXP 1: "You will now complete a brief questionnaire, which begins on the following page. After you have completed the questionnaire please remain in your seat. Are there any questions?"

EXP 1: *Look around for raised hands and answer any questions that may arise.*

After subjects have completed questionnaire...

EXP 1: "The computer has randomly selected one of the bundles you chose today. The other experimenter will now call you one-by-one by your subject ID number. They will hand you your randomly-selected food items. As stated earlier, you will be receiving portions that correspond exactly with one of your choices during the experiment.

Once you have received your items, please remain in the waiting area. You may begin to consume your food once received, however you are required to stay in the waiting area for fifteen minutes after the last subject arrives there. Raise your hand if you have any questions now."

EXP 1: *Look around for raised hands and answer any questions that may arise.*

PART 6 - Consumption (15 minutes):

EXP 2: *Call the first subject to the waiting area using subjects' number. Give the subject their food items and call the next subject. Repeat until all subjects have received their bundles.*

EXP 2: "You now have fifteen minutes to eat the items you received. You are asked to stay in this room for the whole fifteen minutes. After that period we will pay you the \$20 participation fee and you will be free to leave."

EXP 2: *After fifteen minutes, call each subject one-by-one using subject ID numbers and pay subjects their participation fee. Have subjects sign receipt upon receiving their compensation. Thank them and let them know they are free to leave.*