

Experiment Protocol – Fall 2008

Session One

A. Set-up

1. Arrive 10 to 15 minutes before the session. Make sure the computer is in the room and all forms are available when the subject arrives. The required forms are:
 - a) An Informed Consent Form
 - b) The #20 or the #30 MODS scoring sheet (see log for correct version)

Here's an explanation of the condition notation in the log. Each entry consists of a letter (either an M or an S) and a number (either 20 or 30). The letter indicates which task comes first in the second session. An M indicates that the participant will complete the MODS task first in the second session. An S indicates that the participant will complete the Stroop task first in the second session. The number indicates which stimulus set the participant will use in the first session. A 20 indicates that the participant will see stimulus set 20 (file orand20.dat) in the first session and stimulus set 30 (file orand30.dat) in the second session. A 30 indicates that the participant will see stimulus set 30 (file orand30.dat) in the first session and stimulus set 20 (file orand20.dat) in the second session.

2. Use subject numbers in the 300-399 range. Check the log for the next available number.
3. Turn on the computer. It should boot to the C:\> prompt.
4. If the condition is 20, at the C:\> prompt type `cd\mods1` and press **enter**.
5. At the C:\MODS1> prompt type `mods` and press enter.
6. At the subject number prompt, type the subject ID number you set up in step 2. Also, enter your initials when prompted.
7. If the condition is 20, at the filename prompt type `orand20.dat` and press **enter**. If the condition is 30, at the filename prompt type `orand30.dat` and press **enter**. **This is where you should be when the participant arrives.**

B. Informed Consent

1. Read the following:

First, I want to thank you for agreeing to participate in this study. The goal of this project is to examine the relationship between self-control and working memory

capacity. You will complete two tasks in this experiment. One involves reading and remembering digits and the other involves naming the color that strings of letters are printed in. You will complete only the memory task today. In the second session you will do both the memory task and the color-naming task. These tasks were designed to be difficult so please do not get discouraged if your performance is not perfect. The data you generate are important in answering questions of scientific and practical interest, so focus and do the best that you can.

If you agree to participate, please read and sign the consent form that's next to your computer.

2. Have the subject read and sign the consent form. You keep the consent form.

C. MODS Task

1. Read the following:

The first task is a memory task. In this task, you'll be reading strings of characters aloud. Most of the characters will be letters and you simply need to say the name of the letter. Some of the characters, though, will be digits. You not only need to name the digits, you also need to remember what they are. This is a paced task - as each character is presented a click will sound. You should name the characters in time with the clicks.

After you've read several strings of letters and digits, you'll be asked to recall the digits you saw. You should type in the digits in the order in which they occurred. You should do so as fast and as accurately as you can. Please keep in mind that this is a very difficult task. You shouldn't expect to be able to do it perfectly; just do your best.

Do you have any questions?

2. Answer any questions and then have the subject go through the computerized instructions. At the "any questions" prompt, answer any questions the subject might have. Reiterate the following:

Read the letters and digits out loud.

Keep up with the pace of the clicks.

Recall the digits *in the order they appeared*. Do so as fast and as accurately as possible.

This is a very difficult task. Just do the best you can.

3. Type the letter *c* and press **enter**.
4. Have the subject complete the task. Follow along on the appropriate MODS scoring sheet. You need not mark anything on the scoring sheet, but if the subject

makes too many reading errors, remind him/her to read as accurately as possible. Note excessive errors in your log.

5. When participants finish the task, thank them for their effort and remind them of the date and time of their second session.

Session Two – MODS First

A. Set-up

1. Arrive 10 to 15 minutes before the session. Make sure the computer is in the room and all forms are available when the subject arrives. The required forms are:
 - a) The #20 or the #30 MODS scoring sheet (see below and the blue text for session 1)
 - b) A Stroop data sheet
 - c) A Debriefing form

If the participant started in the #20 condition he or she should be in the #30 condition for this session. If the participant started in the #30 condition, he or she should be in the #20 condition for this session. Refer to the log.

2. Use the subject number from session 1.
3. Turn on the computer. It should boot to the C:\> prompt.
4. At the C:\> prompt type *cd\mods2* and press **enter**.
5. At the C:\MODS2> prompt type *mods* and press enter.
6. At the subject number prompt, type the subject ID number. Also, enter your initials when prompted.
7. If the condition is 20, at the filename prompt type *orand30.dat* and press **enter**. If the condition is 30, at the filename prompt type *orand20.dat* and press **enter**. **This is where you should be when the participant arrives.**

B. MODS Task

1. Read the following:

The first task today is the same memory task you performed in session 1. In this task, you'll be reading strings of characters aloud. Most of the characters will be letters and you simply need to say the name of the letter. Some of the characters, though, will be digits. You not only need to name the digits, you also need to remember what they are. This is a paced task - as each character is presented a click will sound. You should name the characters in time with the clicks.

After you've read several strings of letters and digits, you'll be asked to recall the digits you saw. You should type in the digits in the order in which they occurred. You should do so as fast and as accurately as you can. Please keep in mind that

this is a very difficult task. You shouldn't expect to be able to do it perfectly; just do your best.

Do you have any questions?

2. Answer any questions and then have the subject go through the computerized instructions. At the “any questions” prompt, answer any questions the subject might have. Reiterate the following:

Read the letters and digits out loud.

Keep up with the pace of the clicks.

Recall the digits *in the order they appeared*. Do so as fast and as accurately as possible.

This is a very difficult task. Just do the best you can.

3. Type the letter *c* and press **enter**.
4. Have the subject complete the task. Follow along on the appropriate MODS scoring sheet. You need not mark anything on the scoring sheet, but if the subject makes too many reading errors, remind him/her to read as accurately as possible. Note excessive errors in your log.

C. Stroop task

1. From the C:\MODS2> prompt, type *cd\stroop* and press **enter**.
2. Type *stroop* and press **enter** to start the program.
3. At the prompts, enter the subject number and your initials.
4. Read the following:

In this task you will be naming the color that strings of letters are printed in. Four colors will be used: red, blue, green, and yellow. You will respond using the keys of the numeric keypad. For your convenience we've put colored labels on the keys that you will be using to respond. Remember, you will respond to the color of the stimulus. If you see 3 x's printed in red, the correct response would be to press the key with the red label on it. You should respond to each string of letters as quickly as possible without making mistakes. Your overall accuracy will be displayed after each response to help you maintain a high level of accuracy. Do you have any questions?

5. Have the subject read and follow the on-screen instructions.
6. Have the participant complete the task. You need not watch every trial, but you should occasionally monitor what he/she is doing. If you see a large number of

incorrect responses or an overall accuracy below 90%, gently urge him/her to respond more accurately.

7. At the end the participant's data will be displayed.

D. Debriefing

1. Answer any questions the participant might have and give him/her a copy of the debriefing form. Allow the participant to leave.
2. Copy the participant's data onto a Stroop data form.
3. Press the spacebar to exit the program. You can now shut the computer off.

Session Two – Stroop First

A. Set-up

1. Arrive 10 to 15 minutes before the session. Make sure the computer is in the room and all forms are available when the subject arrives. The required forms are:
 - a) The #20 or the #30 MODS scoring sheet (see below and blue text in session 1)
 - b) A Stroop data sheet
 - c) A Debriefing form

If the participant started in the #20 condition he or she should be in the #30 condition for this session. If the participant started in the #30 condition, he or she should be in the #20 condition for this session. Refer to the log.

2. Use the subject number from session 1.
3. Turn on the computer. It should boot to the C:\> prompt.
4. At the C:\> prompt type *cd\stroop* and press **enter**.
5. At the C:\STROOP> prompt type *stroop* and press enter.
6. At the subject number prompt, type the subject ID number. Also, enter your initials when prompted. **This is where you should be when the participant arrives.**

B. Stroop task

1. Read the following:

In this task you will be naming the color that strings of letters are printed in. Four colors will be used: red, blue, green, and yellow. You will respond using the keys of the numeric keypad. For your convenience we've put colored labels on the keys that you will be using to respond. Remember, you will respond to the color of the stimulus. If you see 3 x's printed in red, the correct response would be to press the key with the red label on it. You should respond to each string of letters as quickly as possible without making mistakes. Your overall accuracy will be displayed after each response to help you maintain a high level of accuracy. Do you have any questions?

2. Have the subject read and follow the on-screen instructions.
3. Have the participant complete the task. You need not watch every trial, but you should occasionally monitor what he/she is doing. If you see a large number of incorrect responses or an overall accuracy below 90%, gently urge him/her to

respond more accurately.

4. At the end the participant's data will be displayed. Copy the data onto the data sheet and press the spacebar to exit the program.

B. MODS Task

1. At the C:\STROOP> prompt type *cd\mods2* and press **enter**.
2. At the C:\MODS2> prompt type *mods* and press **enter**.
3. At the subject number prompt, type the subject ID number. Also, enter your initials when prompted.
4. If the condition is 20, at the filename prompt type *orand30.dat* and press **enter**. If the condition is 30, at the filename prompt type *orand20.dat* and press **enter**.
5. Read the following:

The next task today is the same memory task you performed in session 1. In this task, you'll be reading strings of characters aloud. Most of the characters will be letters and you simply need to say the name of the letter. Some of the characters, though, will be digits. You not only need to name the digits, you also need to remember what they are. This is a paced task - as each character is presented a click will sound. You should name the characters in time with the clicks.

After you've read several strings of letters and digits, you'll be asked to recall the digits you saw. You should type in the digits in the order in which they occurred. You should do so as fast and as accurately as you can. Please keep in mind that this is a very difficult task. You shouldn't expect to be able to do it perfectly; just do your best.

Do you have any questions?

6. Answer any questions and then have the subject go through the computerized instructions. At the "any questions" prompt, answer any questions the subject might have. Reiterate the following:

Read the letters and digits out loud.

Keep up with the pace of the clicks.

Recall the digits *in the order they appeared*. Do so as fast and as accurately as possible.

This is a very difficult task. Just do the best you can.

7. Type the letter *c* and press **enter**.

8. Have the subject complete the task. Follow along on the MODS scoring sheet. You need not mark anything on the scoring sheet, but if the subject makes too many reading errors, remind him/her to read as accurately as possible. Note excessive errors in your log.

D. Debriefing

1. Answer any questions the participant might have and give him/her a copy of the debriefing form. Allow the participant to leave.
2. Press the spacebar to exit the program. You can now shut the computer off.