

## Guidelines for Debriefing Students who are Earning Course Credit

The purpose of the Participant Pool is to ensure that the students really learn something meaningful from their participation in your studies. This will require two important debriefing elements on your part:

1. a clear and informative debriefing form that the students can refer to for information about your study, and
2. a willing and knowledgeable person in the lab who can answer student questions at the end of the study.

### Things to Keep in Mind as You Write Your Debriefing

Students in Science of Psychology will have to write a 2-page paper based on one of their experimental participation experiences. Here is an excerpt from the assignment students will complete in Trisha's section of Psych 1001:

In your 2-page paper about the experiment you participated in, be sure that you address the following points, on a basic level:

#### Theory and Hypothesis

1. What is the general psychological theory behind this study?
2. What is the specific hypothesis being addressed in this study?
3. Why does the theory lead to this hypothesis?
4. Are there any practical applications of this theory that are related to this study?

#### Experimental Design

1. Is this an experimental design (as opposed to correlational or pseudo-experimental)?
2. If so, what are the conditions? Is there a control condition?
3. Is the experimenter blind to the conditions?
4. Is this a correlational design?
5. If so, what are the variables of interest?
6. How will the results from this research tell us something about the hypothesis?

\*Note: In rare cases the experimenters will be unable to reveal the design due to concerns about subject expectancy effects.

Your debriefing form should include the information that the students will need to address these questions. Your presentation should be clear and at an introductory psychology level (do not use technical jargon unless it is explained clearly). You should provide enough theoretical detail so that the student can see the link between the theory and the hypothesis. To help you develop a debriefing form at the right level, please follow the guidelines on the following page. A sample debriefing form is attached at the end of this document.

## Steps to Writing Your Debriefing

Step 1: Theoretical background – Provide enough information so that the students will be able to see where your hypothesis comes from.

Step 2: Hypothesis – What is your hypothesis? Even if it seems tired, try to state it explicitly (e.g. “we hypothesize that…” or “our hypothesis is…”), to help the students distinguish between hypotheses and research questions, etc. You may want to briefly mention past results that led you to your hypothesis.

Step 3: Describe the specific study the student participated in. Give the names of any standardized batteries (e.g. the Cognitive Reflection Task or the Stroop Task), and briefly describe the purpose of any other measures. What is the logic behind the variables you measured—in other words, what patterns of results would support your hypothesis? (See the “Note on STEP 3” below.)

Step 4: Any information you wish to add beyond the above.

Step 5: Contact information for someone in the lab students can talk with about the experimental details if they need more information/clarification. (Note that students will not need to follow-up with you for clarification if you do a good job on the written debriefing.)

Step 6: One or two readable references. If there is really nothing readable, you can skip this.

\*Note on STEP 3: We recognize that you may not wish to go into experimental detail because you feel it will bias the participant pool for your study. If this is the case, you can describe a previous study that speaks to the relevant theory (not necessarily your own study). We want students to get a sense of how someone would study the theoretical issues you are interested in. If you choose this option, make it clear that you are describing related work rather than the study the student participated in. Also, explain why you are doing this. Finally, provide a way for students to obtain more detailed information about your study once it is completed. For example, you could send the Intro Psych professors a debriefing at the end of the term that they can post on Courseworks. Explain this in your debriefing.

If you have any questions about how to do this, feel free to contact Trisha at PGL2@columbia.edu or Paul Bloom at pab2163@columbia.edu.

## Can a Familiar Image Help You Remember?

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We often struggle to retrieve the details of past events - What did you have for dinner on Saturday? Who was there? Did you go to a movie before or after? Being able to answer these types of questions depends on your **Episodic Memory**, which is the memory of your past experiences. An intriguing new idea called the Episodic Memory Mode Hypothesis theorizes that your episodic memory system can be in modes that make it better at either encoding new memories or retrieving old ones. This implies that you might be better able to remember what you did last Saturday if asked while you are in a **retrieval mode**.

But what puts people into a retrieval mode? One key manipulation that has been used in the laboratory is exposure to novel or familiar images. Familiar images have the capacity to trigger memory retrieval which then makes people better able to remember other events, even if they are unrelated to the familiar image. In contrast, novel images bias people towards encoding new memories and away from retrieving old ones.

In this experiment, we tested what type of information is better remembered following familiar images. Prior research has shown that recognizing something, like the face of a friend, depends on different memory processes than remembering associated details, like if they were with you on Saturday. So it is possible that familiar images will benefit some types of memory more than others.

We **hypothesized** that exposure to familiar images would improve people's ability to remember associated details *more than* it would improve people's ability to recognize items.

To assess this hypothesis, we tested your memory for object pairings. You were asked to indicate whether pairs of objects were intact, rearrange, or new. Our **dependent variables** were how well you remembered which object went together (e.g. calling an intact pair intact) and how well you remembered the objects (e.g. calling an interact pair rearranged but not new).

We manipulated whether you made each of these choices after seeing a familiar scene (one that you saw in the preceding scene task) or a novel scene. This was our **independent variable**. We predicted that your memory would be better right after seeing familiar as compared to novel scenes. We also predicted that this difference would be larger for associative memory than item memory.

This experiment is sponsored by XXX at Columbia's Department of Psychology. We are providing you with this debriefing form to ensure that you are comfortable with the tasks that you completed and that you learn from this experience. In its entirety, this experiment usually takes approximately 90 minutes to complete, and you have received experimental credit. Please ask the experimenter any further questions about your participation. Please contact Dr. XXX at XXX for further questions.

### **References:**

Duncan K, Sadanand A, Davachi L (2012) Memory's penumbra: Episodic memory decisions induce lingering mnemonic biases. *Science* 337: 485-487.

Tulving E (2002) Episodic memory: From mind to brain. *Annual Review of Psychology* 53: 1-25.