

Paper Two: Taking the next step

DUE TO YOUR TA BY 9AM ON FRI, OCT 8

Paper Two must be drawn from the materials relating to Lectures 7-16 / Chapters 8-12, & 14

For this paper, your goal is to identify a recent finding in the literature, come up with, and propose, a next step in the research program. Science is cumulative. Each finding suggests new questions. A lot of the work of being a scientist lies in figuring out that next step and persuading someone to fund it.

Step 1: A short "letter of intent"

If you were going to submit a grant proposal for research funding, you might first send a short note to the granting agency (e.g. the National Science Foundation) saying "I think I might write a proposal about X. What do you think?" If they think it is lame, you can save yourself a lot of time. So, pick a topic and send your TA a short note describing your plan. Do this at least ten days in advance of the due date for the paper. Your TA will tell you if this seems like a reasonable plan.

Step 2: Write a "grant proposal"

Your paper should have the following parts (borrowed from a typical federal grant proposal format).

- a. **Specific Aims:** In one page (or less), clearly state the problem that you will be addressing and the goals of your proposed research. Typically, this section would start with a paragraph or two laying out the Big Picture ("Depression is a major public health issue in the United States...." and so on). The section might end with a list of 3 or 4 specific goals. ("This proposal has three specific aims: 1. To document the frequency of depression in the MIT undergraduate population. 2. To assess the possible therapeutic effects of Psychology paper deadlines on depression, and 3. to determine the relationship between length of Psychology papers and depth of depression.)
- b. **Background:** This will be the longest section of your paper (perhaps 4 of the 6 pages). As the title suggests, you will document the background for your proposal. What is already known?
- c. **Proposed Research:** This would be the really critical part of a real proposal but, in your case, you are free to be creative and not to worry too much about things like practicality and budget. What would you like to know that does not seem to be known yet? How would you find out if you had the resources?
- d. **Bibliography:** As before, the listing of the works that you used.