For your final project, I would like you to **pick one topic from one published research paper** in an area of your choice related to computational modeling of cognition and **do your best to thoroughly understand and explain it**.

The structure of your project will mirror the Marrs/Gurney levels of analysis and, to a lesser extent, Polya's principles of problem-solving, in the following ways. I'm interested in ***quality, not quantity***; I'm not going to give you page limits, but 5-10 pages is typically needed to do the job. The usual standards concerning citing work you draw upon will, of course, apply. (***Note****: Alternative projects can be negotiated.****)***

A. CONTEXT and SIGNIFICANCE

What, briefly, is your topic? How does your topic relate to computational modeling of cognition? What type of cognition? What role does it play in the paper you drew it from? Why does it interest you? Why should we care about it? This is analogous to Marr's *computational* level.

B. NUTS and BOLTS

What, exactly and in detail, is your topic? Here is the place to define terms, explain or derive equations, state predictions under what conditions, etc. If you are discussing a particular experiment, this is where you would give the details and rationalization of the experimental design. This is analogous to Marr's *algorithmic* level.

C. SHOW and TELL

If your topic is directly computational, this is where you would do some programming. If you are discussing a particular experiment, this is where you would present the results. This is analogous to Marr's *implementation* level.

D. LOOKING BACK and NEXT STEPS

This is Polya's most powerful principle. What did you learn? What was the most challenging aspect of the project up to this point? If you are discussing an experiment, this is where you would critique any deficiencies. For all topics, what would come next? If you are discussing an experiment, how could you modify the experiment to examine a related question? If you had written a program, this is where you could analyze its performance and suggest ways of modifying it to make it more useful or to help you investigate related questions.

I'll accept projects (as written papers) as early as the last day of classes and as late as the last day of finals. You should also prepare a **two-page poster** of your project (fits in a manilla folder) for a **POSTER SESSION IN OUR LAST CLASS**.