COGS 102A   FINAL PROJECT: Distributed Cognition in Collaboration

In this lab (which will require each team to meet for the 2.5 hour Lab session on Wed, Sept 5, at least 2 hours outside of class, and the 3 hour Final session on Friday Sep 7), we will, as a group, pilot a study of collaboration and, from our group discussion, each team will compose a proposal for a full-blown study on this topic.

THE PROPOSAL

Your proposal will be organized much like a real proposal for research support would be (*sans* Budget). While each team will be responsible for its own proposal, and can feel free to develop it however you like (given the constraints below), a VOCABULARY of terms, most of which **must** be included in each proposal, will be provided.

A) Introduction - Basic research question and theoretical background for work.

In this section, you will clearly state your research question(s), in terms of the **specific Hypothesis** that you will be testing. Discuss why this is of interest to a cognitive scientist, and describe, in general terms, how it will be investigated. In addition, provide theoretical background focused on the relevant concepts you have learned in this course and other research in the field. That is, you will explain the dcog approach and why it is appropriate for this particular study (~1 page). Be sure to cite the appropriate papers (i.e. the required and/or recommended readings - as listed on syllabus or lecture notes). Include full refs in your final REFERENCE section ~1 page

B) Methods - Describe subjects, setting, apparatus, methods, and analyses in this study

Given that this is a DCog study, you will need to describe your plans for collecting data at the micro, macro and historic time scales. This section will require 5+ pages to complete.

HISTORIC - This will include any criteria for selecting participants, your info or assumptions about their history (e.g. enculturation, experience, etc) and why those are relevant, and specific plans for follow-up interviews (i.e. what questions you will ask) and their analysis (implications of possible answers). HINT: Put some thought into both the questions AND the expected answers, as well as what you will be able to make of that info!   ~ 1 page.

MACRO - This includes describing the parameters of (apparatus and protocol) of the task itself. This should include the criteria for determining the start/end of the task, how and where it will be filmed (including **why** you have made those choices), how many such samples will be collected, etc. It will also include a copy of the specific instructions that will be provided to the participants, and your plans for dealing with privacy issues. 1-2 pages.

MICRO - The micro-level section will specify the criteria for scoring the collected video. This must include a **detailed ethogram** of data terms and their behavioral criteria, as well as datasheet design. This protocol must be written in such a way that another researcher could collect those data, based on your specific criteria. You will also include the pilot data that you collect using this ethogram. Ethogram: 1-2 pages. Data sheets: However many!

Further, while normally you would also include an account of your planned (e.g. statistical) analyses, here you need only discuss which aspects you would analyze qualitatively and which quantitatively. Keep in mind that this needs to be a multi-modal, multi-party analysis. From what you know about the demands of micro-analysis, explain the tradeoffs you would expect, in terms of effort, $ & time, how you will address those issues (e.g. Collect data yourselves? Automate analysis? Invest in training of a data collection team? If the latter, how will you assure inter-observer reliability? etc) & what you can feasibly hope to accomplish in the proposed period. ~1 page

C) Anticipated Results and Implications

Based on our piloting activities in class, describe what results you might anticipate and their implications for understanding collaborative cognition. This should refer back to your specific hypotheses described in the Intro, and how the particular data you will collect addresses this hypothesis. Finally, include a discussion of how this project relates to what it was like to collaborate as a team this term! This section should be ~1 page.

CHECK LIST of requirements for Final Project

___ VOCABULARY of terms, most of which **must** be included in each proposal

A) Introduction ~ 1 page.
___ Clearly state your research question(s), in terms of the **specific Hypothesis** that you will be testing.
___ Discuss why this is of interest to a cognitive scientist,
___ How it will be investigated.
___ Theoretical background - explain the dcog approach and why it is appropriate
___ Cite the appropriate papers

B) Methods - Describe subjects, setting, apparatus, methods, and analyses in this study

HISTORIC ~1 page
___ Criteria for selecting participants (if any)
___ Their history (e.g. enculturation, experience, etc) and why those are relevant.
___ Follow-up interviews (i.e. what questions you will ask)
___ And their analysis (implications of possible answers).

MACRO - . 1-2 pages.
___ Apparatus and protocol of the task itself.
___ Criteria for determining start/end   ,
___ How and where it will be filmed (including **why** you made those choices)   ,
___ How many such samples will be collected
___ Specific instructions that will be provided to the participants,
___ Plans for dealing with privacy issues

MICRO - ~2 pages + pilot data
___ **Detailed ethogram** of data terms and their behavioral criteria.
___ Datasheet design
___ Include the pilot data.

Planned analysis ~1 page.
___ Which data you would analyze qualitatively (i.e. descriptively) and why, and
___ Which quantitatively (i.e. what will you count?) and why?
___ Explain the tradeoffs in terms of effort, $$, and time, how you will address those issues
___ What you can feasibly hope to accomplish in the proposed period

C) Anticipated Results and Implications~ 1 page.
___ Results you might anticipate and their implications for understanding collaborative cognition.
___ Framed in terms of the specific hypothesis & how your data can address this hypothesis
___ How all this relates to your working as a team this term.

References
___ List full references of every paper cited