Phil 12
Fall 2016

First Writing Assignment

Write a short paper (1-2 pages, double-spaced, typed) on the question assigned for your section. These are to be turned in by Noon on Friday, November 11. Papers should be submitted electronically to your TA in .doc, .docx, or .rtf format. If this is not possible, you may deliver them to your TA's mailbox (H&SS, 7th floor) by 4:30 on Thursday, November 10.

The goal of this paper is to explain clearly the central concepts employed in the question you are to address. Assume that your audience is a fellow student not in this class. To explain the material to that person you cannot just use the concepts we have developed in class but must *explain* them. Present your answers totally in your own words—do not quote material either from the website, the lecture powerpoints, or anyone else.

A01. Imagine that you are part of a group of investigators considering whether there is a correlation between the release of carbon dioxide into the atmosphere by humans (whether by industry, car exhaust, etc.) and global changes in the climate of planet Earth. Propose operational definitions of these variables and explain the strengths and weaknesses of your proposal in terms of construct validity. Explain how you will test for a correlation using a sample, making it clear what constitutes the null hypothesis and the research hypothesis, as well as what are the possible Type I and II errors in this scenario. Which error are the investigators likely to be more wary of, and why? What are some things that your team can do to try to reduce the likelihood of committing a Type 1 error? A Type II error? Finally, what other *scientific* factors make this a complex and challenging relationship to be investigating?

A02. Imagine that you are part of a group of investigators considering whether there is a correlation between race and general intellectual ability of humans. Propose operational definitions of these variables and explain the strengths and weaknesses of your proposal in terms of construct validity. Explain how you will test for a correlation using a sample, making it clear what constitutes the null hypothesis and the research hypothesis, as well as what are the possible Type I and II errors in this scenario. Which error are the investigators likely to be more wary of, and why? What are some things that your team can do to try to reduce the likelihood of committing a Type 1 error? A Type II error? Finally, what other *scientific* factors make this a complex and challenging relationship to be investigating?