

## Political Science 104 Homework #2

### Due Monday, May 4th, at the end of lecture

**Question 1:** In homework #1, question #2 you were asked to come up with your own hypothesis, and also provide an alternative explanation for the relationship you proposed in that hypothesis. You may use that hypothesis and alternative explanation for this question, or you may come up with a new one if you didn't like what you came up with last time.

- State the hypothesis and alternative explanation you are using.
- Design a study to test your hypothesis that would allow you to distinguish between your hypothesized relationship and alternative explanation you proposed. Describe your research design in a paragraph or so, and explain how it would help you distinguish between these two possible explanations for a relationship between your dependent and independent variables.
- Describe a situation where your hypothesis could be tested through a natural experiment. Obviously a natural experiment might be very unlikely for your particular hypothesis, so feel free to create as outlandish a scenario as necessary (such as an undiscovered continent, sunspots that block television signals, or whatever) in order to observe a natural experiment that allows you distinguish between your hypothesized relationship and the alternative relationship.

**Question 2:** Consider the following hypothesis: "Democracies are less likely to go to war with other democracies than they are with non-democratic nations."

- Come up with operational definitions for "democracy" and "war" that will allow you to empirically test this hypothesis.
- What is the level of measurement for the measures you have proposed?
- Discuss the content validity of the measures you have proposed.

**Question 3:** Read the Easterlin paper “Does Economic Growth improve the Human Lot? Some Empirical Evidence” (this paper is on the reading list on my website). In this classic paper Easterlin examines the relationship between happiness and income, and finds that the average happiness reported by countries does not increase as GDP increases (this is known as the Easterlin Paradox).

- Briefly describe one of the measures of happiness that Easterlin considers.
- What is the level of measurement of this measure?
- What is one potential source of bias in this measure, and what (if anything) does Easterlin say about it?
- Come up with your own measure of happiness. How would you calculate this measure?
- What is the level of measurement of your alternative measure of happiness?
- How does your measure of happiness compare to Easterlin’s measure in terms of reliability?