**Social Dilemmas** **Human Behavior Study**

We would like you to conduct a statistical study of human behavior. The idea is to compare the social behaviors of two different groups. In order to make a comparison you will need to collect some quantitative data, so that you can compare the means of the two groups using a t-test. Your project should include the following:

1. Research design: You should start with a clear research question with an appropriate hypothesis. Then you should design a study that will allow you to collective quantitative data from two different groups of students in order to test your hypothesis.
2. Statistical Analysis: You should analyze your data using appropriate statistics. At a minimum you should discuss the distribution of values as illustrated by a histogram and support your discussion with reference to the mean and standard deviation. In making your comparison between the two groups you should make use of a t-test to show if there is a significant difference between the two means.
3. Formal Report: You should write a 3-4 page formal report about your results. Your report should include:
    a. a detailed introduction which explains the background of your study, the research question and what motivates it, the hypothesis and justification for it.
    b. A careful explanation of the research design and how it will answer the question
    c. A discussion and analysis of the results – using graphs, statistics and hypothesis testing.
    d. A conclusion which directly answers the research question points out limitations of the study and points to possible further research.
4. An appendix which includes survey questions you use, raw data and Excel worksheets.

The final report is due in on Monday, Dec 7th. Here are some ideas for research experiments. We would prefer that you use one of these ideas. However, if you have an interesting proposal for another idea let us know what it is, and if it seems feasible we'll give you the go ahead.

**A: Trust:**
In this study you compare your subjects' answers to a few questions which are designed to quantitatively measure trust.

Present your subjects with the following scenario:
You and another anonymous participant in this study are each given $10. One of you is randomly chosen to be the RED player, and the other is chosen to be the BLUE player. The RED player may offer any amount up to $10 to the BLUE player. The amount offered is multiplied by three and added to the BLUE player's original $10. The BLUE player then has an option to offer RED as much money as he chooses.

Now ask them the following questions:

1. If you were chosen as the RED player how much would you offer?
2. How much would you expect to get back?
3. If you were chosen as the RED player and BLUE was not allowed to offer anything back, what, if anything, would you offer?
4. If you were chosen as the BLUE player and were given $5 dollars, by the RED, so that your total became $25, how much money would you offer to RED?

The amount offered in question 1.is a measure of trust. The amount offered in 3 can be considered a measure of generosity. The amount offered back can be used as a measure of trustworthiness. You can compare women and men in this study, or you can have some participants read some passage about the importance of trust before answering the question. Alternatively you could have one group play a slightly different version, where instead of randomly being chosen to play RED or BLUE, a person is chosen for a specific reason. For example, perhaps RED did worse in some general knowledge quiz than BLUE.

**B: Cheating:**
Design a short test with 10 multiple choice questions. Ask subjects to complete the test. For one group of subjects score the test yourself. This is the control. For the other group have them mark it themselves and tell you the score. Offer some kind of reward that depends on the number of correct answers. The test should be designed so that most students would get about half the questions right. When you create your choices for each multiple choice question make sure you choose some incorrect answers that are plausible.

**C: Altruism and Social Norms.**
You have two heavy boxes outside the library. Ask strangers to give you a hand carrying them up to Lab 1. Ask 50 people and record how many people agree. Count a person as being asked, if they pause and listen to you all of your request after you say “Excuse me!”. Count a person as saying yes if they go so far as to lift up the box (don’t make them actually carry the box to Lab 1). After they have picked up a box, ask them how much they would charge to carry the box to Parking Lot B. Now repeat the experiment, by offering 50 people a quarter to help you carry the box to Lab 1. Of those who say yes, ask them how much they would charge to carry the box to Parking Lot B.

Alternatively, instead of asking people to carry something you could ask them to hold something for you while you go get something from somewhere else. Then you could have an accomplice time how long they are willing to hold it. Time would then be a quantitative measure of how altruism.

**D: Authoritarianism and Rebellion,**
At the following link you can find and questionnaire about Authoritarianism and Rebellion, with responses that are scaled so a quantitative analysis may be carried. http://www.yorku.ca/rokada/psyctest/ You could give this test to two different groups (young/old or male/female, or perhaps a control group and another group that reads a short passage about patriotism.