Assignment #5 **Confounds**

He can best avoid a snare who knows how to set one. -- Publilius Syrus

You should be able to:

1) Identify the independent and dependent variables.
2) Identify all confounding variables and explain **why** they are confounded.
3) Identify any problems with the research that you feel will prevent the experimenter from being able to clearly show that the independent variable(s) resulted in the observed outcomes.
4) Suggest a method to eliminate or avoid the confounding and/or other problems so that the researcher could still answer the questions raised by the original proposal.

DUE: IN CLASS.

1. Dr. Susan Rocksmasher wondered whether the gender of an examiner influenced the responses of male subjects on the Attitudes Toward Women (ATW) scale. (The ATW measures whether an individual has traditional or nontraditional attitudes toward women's roles.) She asked Dr. Wally Flowerpetal to administer half of the questionnaires so that she could compare the ATW scores for males tested by a male versus a female examiner. Dr. Rocksmasher found that her respondents had much more "liberal" ATW scores than Dr. Flowerpetal's respondents. She concluded that men "act" more liberal in order to gain approval from women, whereas they reveal their true "macho" selves to other men.

2. It was an exciting day for Mitzy Gogetum! She was finally ready to collect some data to find out if her new motivation video was as effective as she believed it to be! She only had one day to test her subjects, and Sunday was the day! Mitzy had announced her study when she placed an advertisement on the campus bulletin board. It read, "*Call for volunteers to participate in a study about motivation! Please call now as space is limited to the first 100 people!*" It had Mitzy's email and phone number on it and because she had no way of knowing or controlling which random people might end up calling her, she decided it would be easiest to assign the first 50 people who contacted to her experimental group (those who watched her 20-minute motivation video) and the next 50 people were assigned to the control group (these people watched a 20-minute long neutral video). After each group finished watching the video, they were given a motivation test. Mitzy was very pleased to find that people who watched her motivation video scored significantly higher in motivation than the control group!

3. Dr. Hugh Mungus wanted to determine whether the new drug *Giganticol*™ affected sexual prowess differently for men and women. Thirty male and thirty female college students were brought to the auditorium to participate in this study. Each was given an injection of the drug and then asked to rate their sexual prowess on a 10-point scale. To save time, Dr. Mungus had people raise their hands when he called each Likert value, and he simply counted the number of hands raised for each number (1-10). Upon reviewing the findings, it was discovered that men scored much higher on the measure than females. Dr. Mungus concluded that *Giganticol*™ reduces sexual prowess among females, but increases sexual prowess among males.

4. A drug company developed a new medication to control the manic phase of manic-depression. The firm hired a hospital psychiatrist to test the effectiveness of the drug. He identified a group of manic-phase patients and randomly assigned them to a drug or placebo group. Nurse Jackie was told to administer the drug, while Nurse Betty was told to administer the placebo. Each made daily observations of their patients during treatment. A month later the observations were compared: In general, patients in the drug group had behaved more "normally" than patients in the placebo group. The drug company publicized the effectiveness of the product and received a million orders for the new drug in the next few weeks.

5 It was a dark and stormy night. Gunther was working late in the lab adding the finishing touches to his research project about the effects of staring at people to make them give up their tables faster at Olive Garden restaurants. He had collected his data over the course of three years (this was before COVID hit). There were two conditions: (1) Staring and (2) No-staring in which Gunther would arrive at the Olive Garden each evening at 6:00pm when the restaurant was very busy and there was always at least a 45-minute wait. Then he would always "target" the same table of 6 and either stare at them continuously or ignore that table. The dependent variable was how long the table had guests timed in minutes/seconds as they were being seated until the last person left the table. He did this for three dining groups each evening. To make it fair three days a week were used for each condition; condition 1 (staring) occurred on Mondays, Tuesdays, and Wednesdays, then data for condition 2 (no-staring) were collected on Fridays, Saturdays, and Sundays. As he expected, Gunther found that staring did indeed reduce the amount of time diners stayed at the table.

6 Dr. Perfectly Scrumptious invented a new form of therapy and decided to test it against various well-known therapies. She had 50 new patients so she began her study with them all. For the first month, she used Jungian techniques and then assessed their wellness. Next month she used Freudian therapy, followed by another wellness assessment. The month after that she tried Cognitive-Behavioral therapy, again followed with a wellness assessment. Finally, the last month she used her own "Scrumptious" therapy and ended again with a wellness assessment. Dr. Scrumptious analyzed the data for each type of therapy and found that her patients' wellness scores were significantly better following Scrumptious-Therapy than any other therapy! She has decided to only use her own therapy from now on so that patients will receive the best care possible.