

PSY 392 – Data mining
Course Project
Presentations will be November 25 – December 6

Apply the Test for Excess Success to one of the papers below.

1. Gino, F. & Mogilner, C. (2013). Time, money, and morality. *Psychological Science*, 25(2), 414-421.
2. Kenrick, A. C., Sinclair, S., Richeson, J., Verosky, S. C., & Lun, J. (2016). Moving while black: Intergroup attitudes influence judgments of speed. *Journal of Experimental Psychology: General*, 145(2), 147-154.
3. Kilduff, G. J., Galinsky, A. D., Gallo, E. & Reade, J. J. (2019). Whatever it takes: Rivalry and unethical behavior. *Academy of Management Journal*.
4. Nielson, L. D. & Morrison, E. L. (2005). The symptoms of resource scarcity: Judgments of food and finances influence preferences for potential partners. *Psychological Science*, 16(2), 167-173.
5. Ongchoco, J. D. K. & Scholl, B. J. (2019). How to create objects with your mind: From object-based attention to attention-based objects. *Psychological Science*, 30(11), 1648-1655.
6. Rhodes, M., Leslie, S-J., Yee, K. M. & Saunders, K. (2019). Subtle linguistic cues increases girls' engagement in science. *Psychological Science*, 30(3), 455-466.
7. Risen, J. L. & Gilovich, T. (2019). Why people are reluctant to tempt fate. *Journal of Personality and Social Psychology*, 95(2), 293-307.
8. Rounding, K., Lee, A., Jacobson, J. A. & Ji, L-J. (2012). Religion replenishes self-control. *Psychological Science*, 23(6), 635-642.
9. Sagioglou, C. & Forstmann, M. (2013). Activating Christian religious concepts increases intolerance of ambiguity and judgment certainty. *Journal of Experimental Social Psychology*, 49, 933-939.
10. Xu, A. J., Schwarz, N. & Wyer, R. S. (2015). Hunger promotes acquisition of nonfood objects. *Proceedings of the National Academy of Sciences*, 112(9), 2688-2692.
11. Zhu, M., Yang, Y., & Hsee, C. K. (2018). The mere urgency effect. *Journal of Consumer Research*, 45, 673-690.

I have made a google spreadsheet at (a direct link is on the class web site):

https://docs.google.com/spreadsheets/d/1vBoApSTXfPw2C365ScuNYl4DxApd_davE5lThL-V-IE/edit?usp=sharing

You should go there to indicate which paper you want to use for your project by putting your name in the cell to the left of the paper. A paper should be used by only one student, so if a name is already next to a paper, do not use it. If you change to a different paper, update the spreadsheet by removing your name from the old paper and adding your name to the new paper.

Tips:

Based on a quick analysis, each of these papers seems to have “excess success”. However, I might have made a mistake, so do not think that you *have* to find excess success in the paper you choose.

The hardest part of the analysis is identifying which statistic is relevant for a given experiment. Typically, you should select only one statistical test for each experiment, but there are a few cases where independent tests are computed for subgroups (e.g., separate tests for boys and girls). In those cases, you can use both tests. To identify relevant statistical tests, you have to read the paper carefully. Look for phrases like, “as predicted” or “most importantly”. The following statistical test (and maybe others that come after) is probably how the authors are supporting their conclusion. I recommend checking with Dr. Francis to see if your selections are reasonable.

Oftentimes, authors use multiple statistical tests to support their conclusions. For estimating power, you are looking for the *lowest upper bound* of power. That is, if multiple relevant statistical tests are present, you want to pick the test result that is going to give you the smallest power estimate (including other tests would only lead to even lower power). Usually, this will be the test with the highest significant p -value. Note, that sometimes authors claim significance even if p is bigger than 0.05. This means that they are using a non-standard significance criterion; you should use that non-standard significance criterion for your power analysis.

I created some R code, *ComputePower.R*, that calculates power for a variety of statistics that you will find in these papers. You will find it on the class web site. Using this code is much easier than other calculators that you might find on-line.

I will give a presentation in class that you can use as a model for your own presentation. The power point file will be posted on the class web site. I recommend using it as a template. You will provide Dr. Francis with a copy of your presentation.

The day of your presentation will be selected in class. If you do not attend class, you may be required to present on a day that is inconvenient for you. We will have two student presentations per class session, so plan for a 20 minute presentation and a few minutes for questions. A good talk requires lots of practice!

Grading will be based on the following:

- Proper selection of tests for the test for excess success.
- Proper calculation of estimated power for the selected tests.
- Proper interpretation of the test for excess success.
- Organization of information in the presentation.
- Presentation itself (good delivery).
- Ability to answer questions during presentation.