

PLSC 597  
Causal Inference  
Homework 4  
Due: April 25th 11:59pm

We are going to work with the following paper,

Robertson, Claire E., et al. "Negativity drives online news consumption." *Nature Human Behaviour* (2023): 1-11.

Read the entire paper and get a sense of what they're analyzing, how and why. [Here is more context.](#)

Here are the links to the [paper](#) and [all replication materials](#). Using these materials, carry out the following:

1. Scope conditions: This is a dataset of RCTs, so we are less concerned about confounding, but there is still the question of scope conditions. Describe

- Substantive/theoretical quantity of interest
- The estimand defined by the specific comparisons (eg "treatment" vs "control") in the current paper
- The statistical estimator

2. Replication: Replicate Figure 2. Discuss the choice of the addition of control variables in panel a. Discuss the decision to marginal effects in panels b and c with a linear model.

3. Hypothesis generation: think about another hypothesis that might be tested with the Upworthy Research Archive data. You will need to do some text analysis in order to implement it, so don't worry about that for now – instead, just describe hypothetically how you would answer the three bullet points in question 1 in your hypothetical study.

4. (TO BE UPDATED NEXT WEEK): perform novel analysis of HTEs over time.