Handout – Week 13

No Sections during the Final Week (December 11th).
Extended drop-in student hours for final review Between 10:00- 13:00
Zoom Meeting ID: 766 409 1292

Exercise 1:
Explain if/why the following research projects face credibility concerns. If you think a study is flawed, explain the nature of the flaw and determine if it is an unintentional "garden of forking paths" or intentional p-hacking/fraud.

1. A political psychologist studies how partisanship affects subjective ratings of interpersonal attractiveness. Initially, no significant effect is found using a 5-point Likert scale. However, the psychologist then decides that a binary coding (either attractive or unattractive) is more appropriate, finding a significant result that people perceive co-partisans as more attractive.

2. A researcher in refugee politics theorizes that populations with past wartime displacement are more likely to empathize with and support foreign refugees. Field research in Colombia supports this theory. However, a similar study in Germany does not. The researcher argues that Germany's wartime experience is too distant (1940s) for the independent variable to have the same effect and omits Germany from the paper.

3. A team of political economists tests the theory that investors prefer investing in democratic countries over autocratic ones. A survey experiment with 300 investment fund managers in New York manipulates five characteristics of hypothetical foreign investment projects: 1) the country's GDP per capita, 2) the project's expected rate of return, 3) recent free and fair elections, 4) persecution of opposition journalists, 5) judicial review of executive policies. Results show positive effects only for GDP per capita and expected rate of return. However, a subset of data from low-income countries shows a positive effect for judicial review on investment willingness, leading the researchers to claim support for their theory, arguing that democracy is presumed in wealthy countries.

4. Researchers investigate whether drone strikes in Pakistan and Afghanistan effectively reduce terrorist activities. They use data from the Armed Conflict Location and Event Data Project and collect data on drone strike timings and locations from 2016 to 2020. Analyzing the correlation at the district level shows no significant effect, but provincial-level analysis reveals that drone strikes significantly reduce terrorist activities in the following month. They reported results at both the district and provincial levels and theorized that terrorist organizations may be operating across district lines.

5. A researcher hypothesizes that religious voters in the U.S. are less likely to vote for female candidates in state and local elections. Initial regression on a large survey dataset shows no effect. The theory is then narrowed to Southern religious voters, then further to Southern Republican religious voters, and finally to Southern Republican religious voters in cities under 100,000 population. Only the last regression yields significant results, which are then published only statistically significant results.

6. Based on the lecture and reading, describe what a pre-registration procedure is and what it involves. Discuss whether pre-registration could prevent the problems in the previous examples of Exercise 1.

Exercise 2*: Confirmation Bias in Action

A false flag operation describes an act carried out by one actor with the intent of pinning the blame on another actor in a conflict. In international conflicts, there is often uncertainty over who actually carried out an attack or whether the attack is a false flag operation aiming to shape international public opinion. In this study, the researcher proposes a confirmation bias model, tested using a survey experiment regarding a hypothetical false flag operation during the Russo-Ukrainian War.

Imagine that on June 22nd, 2024, A "dirty bomb" containing radioactive material explodes in **[Kiev, the capital city of Ukraine /Moscow, the capital city of Russia].** The explosion occurred approximately 300 feet away from the US embassy. **5** people were killed by the explosion, including 2 US marines guarding the American embassy. Radioactive materials are spread across the city center during the evening rush hour, and several **[hundred/million]** citizens were potentially exposed to a dangerous level of radiation and could face an elevated risk of cancer. Given the ongoing war between Russia and Ukraine, it is possible that **[Russia/Ukraine]** carried out this attack targeting the **[Ukrainian/Russian]** capital. However, it is also possible that the **[Ukrainian/Russian/US]** intelligence service staged a "false flag" operation, framing their enemy for the attack, as an excuse to escalate the war and gain international sympathy for their side. It is highly uncertain who is the true perpetrator behind the attack. **In recent years, the government of [Ukraine/Russia/US] has become increasingly authoritarian and has cracked down on domestic opposition.**

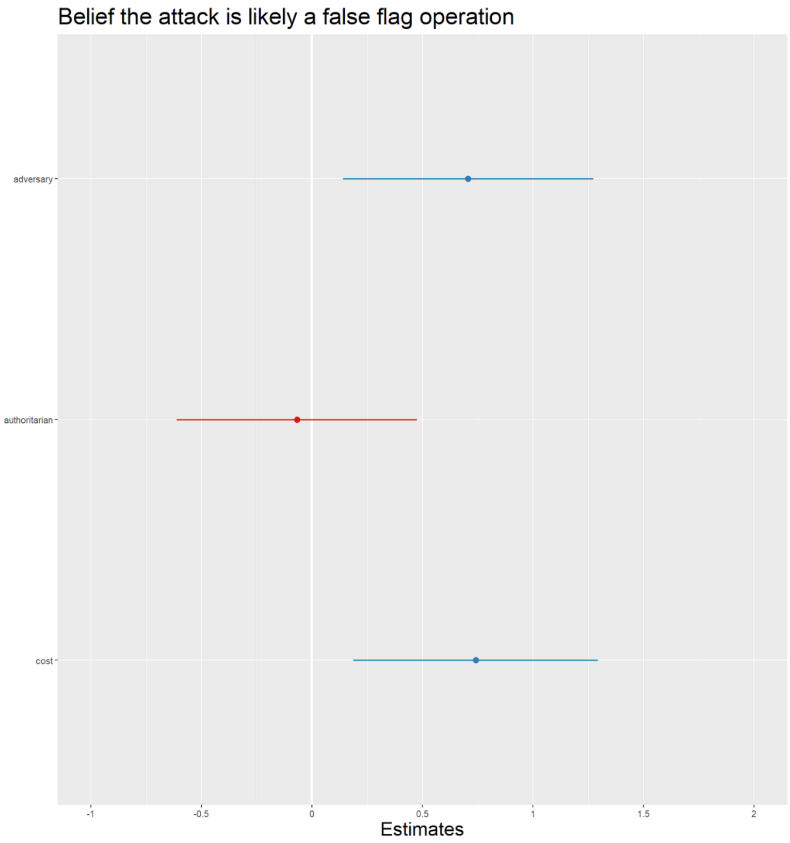
Theory: The researcher hypothesizes that the American public will give its ally, Ukraine, the benefit of the doubt and be more likely to believe that an attack they suffered is genuine (Hypothesis 1). Additionally, confirmation bias will lead Americans who support Russia to be more likely to believe Russia and be more suspicious of Ukraine, with the same applying to pro-Ukraine subjects (Hypothesis 2).

Results

T1: Adversary

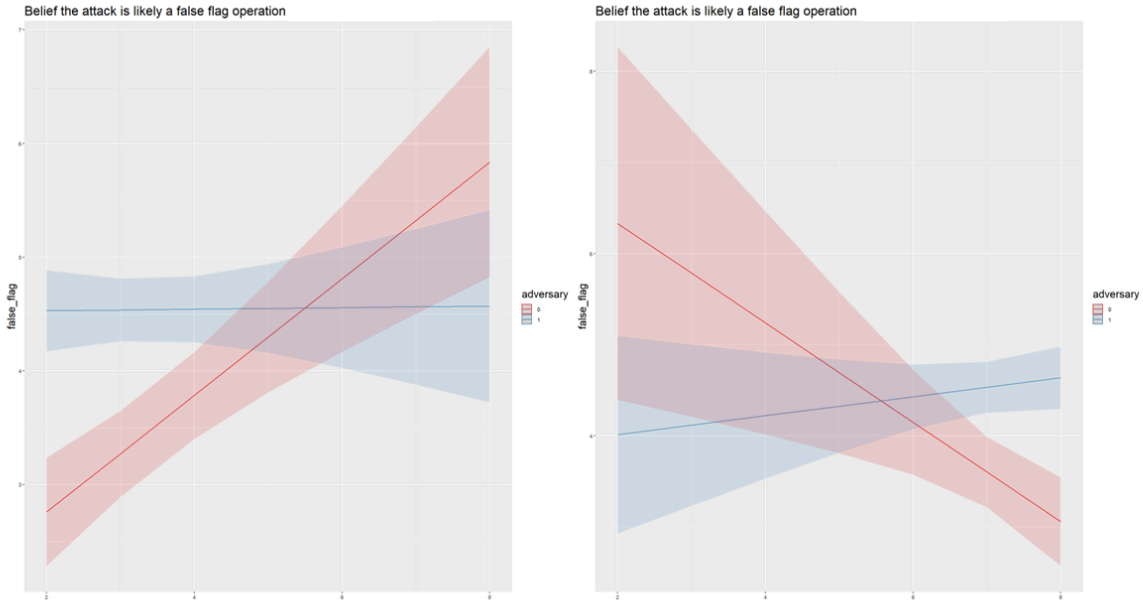
T2: Authoritarianism

T3: Costliness of the attack



Note: Adversary =1 Russia is the Nominal Victim. Adversary =0 Ukraine is the Nominal Victim

Heterogenous Treatment Effect: Red Line-Ukraine is the Nominal Victim



Support Russia(Likert scale)

Support Ukraine (Likert scale)

Questions:

a) What would the theory of motivated reasoning predict if Ukraine is the nominal victim of the attack? What would the theory of motivated reasoning predict if Russia is the nominal victim of the attack?

b) Interpret the research results. Does the data support or contradict the two hypotheses about confirmation bias?

c) Can you think of other examples of confirmation bias shaping public opinion in US or international politics? Think about what you would expect if you are trying to fabricate the data to support the author's theory.

Exercise 3: Intentional fabrication:

Shu, Lisa L., Nina Mazar, Francesca Gino, Dan Ariely, and Max H. Bazerman. "Signing at the beginning makes ethics salient and decreases dishonest self-reports in comparison to signing at the end." *Proceedings of the National Academy of Sciences* 109, no. 38 (2012): 15197-15200.

Abstract: Many written forms required by businesses and governments rely on honest reporting. Proof of honest intent is typically provided through signature at the end of, e.g., tax returns or insurance policy forms. Still, people sometimes cheat to advance their financial self-interests—at great costs to society. We test an easy-to-implement method to discourage dishonesty: signing at the beginning rather than at the end of a self-report, thereby reversing the order of the current practice. Using laboratory and field experiments, we find that signing before—rather than after—the opportunity to cheat makes ethics salient when they are needed most and significantly reduces dishonesty.

SIGN AT THE BOTTOM

Shu et al. 10.1073/pnas.1209746109

Form **3305** (Rev. June 2010) Center for Decision Research

Research Study Tax Return

For the period June 1, 2010, through August 30, 2010

Keep a copy of this return for your records.

OMB No. 1555-0111

Write Clearly | Name | PID | For Administrative Use Only

Address (Number, street, and room or suite number)

City, State, and ZIP code

T ..... FF ..... FP ..... I ..... TL .....

Part 1 Please fill out the questions below to compute your taxed payment.

1. Please enter the payment you received on the problem solving task ($1 per correct matrix you solved in the other room) ▶ 1
2. Tax on payment: Please enter the equivalent of a 20% tax on your payment (i.e., 20 cents for every dollar earned) ▶ 2
3. Please subtract the value specified in box 2 from value specified in box 1 ▶ 3

Part 2 Participants will be compensated for extra expenses they have incurred in order to participate in this study. In Part 2, you are asked to estimate the costs incurred in order to participate. These costs will be deducted from your tax return.

1. Please estimate the time it took you to come to the lab. You will be compensated $0.10 per minute, up to a 2 hour maximum ▶ 4
2. Please estimate the cost of your commute, if any, to come to the lab. You will be compensated up to a maximum of $12 ▶ 5
3. Please add the value specified in box 4 and the value specified in box 5 ▶ 6

Part 3 Please compute your final payment.

1. Please add the value specified in box 3 and the value specified in box 6. This is the amount of your final payment for today's session ▶ 7

Sign Here

I declare that I carefully examined this return and that to the best of my knowledge and belief it is correct and complete.

▶ Signature ▶ Date

Fig. S1. Tax form used in experiment 1, signature-at-the-bottom condition.

SIGN AT THE TOP

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Download and examine the research dataset xlsx.
Some contexts on the data: A column called "Cond", indicating participants' treatment assignment (0 = control, no signature was required; 1 = sign-at-the-top; 2 = sign-at-the-bottom), and then by a column called "P#", indicating a Participant ID number assigned by the experimenter.

a) Identify the sample size and the units of analysis.

b) Based on the researcher's theory, identify the dependent variable in the dataset. Determine the average values of the dependent variable in each treatment condition. Do the results support the author's theory?

c) Are there any anomalies in the data that could indicate researcher data manipulation or fabrication? Identify units that you deem suspicious.

d) Can you find any evidence suggesting that the suspicious data points you identified were fabricated to support the author's theory?

Exercise 4: Case Study Assignment

1. Pick a research question, proposal a theory that can be answer your question, with IV, DV and a causal mechanism.
2. Derive an **observable implication** of your theory that you will test. The observable be **very specific** about what you would expect to see in the qualitative evidence. In other words, this is not a "general" prediction but rather a very specific implication in the context of the kinds of evidence you will be looking at. **(Most important park of assignment 5, vague discussion will not suffice)**
3. Explain how you would select one or more cases **(Don't Select on DV!)**.
4. Explain how you would locate evidence: Would you use archives, interviews, fieldwork? **Describe in detail**.

Recommended "readings":

Joe,. "[109] Data Falsificada (Part 1): 'Clusterfake' - Data Colada." Data Colada, June 17, 2023. https://datacolada.org/109#footnote_2_7322.

Joe,. "[111] Data Falsificada (Part 3): 'the Cheaters Are out of Order' - Data Colada." Data Colada, June 23, 2023. https://datacolada.org/111.

NPR. "Fabricated Data in Research about Honesty. You Can't Make This Stuff Up. Or, Can You? : Planet Money," July 28, 2023. https://www.npr.org/2023/07/27/1190568472/dan-ariely-francesca-gino-harvard-dishonesty-fabricated-data.

Joe,. "[98] Evidence of Fraud in an Influential Field Experiment about Dishonesty - Data Colada." Data Colada, August 17, 2021. https://datacolada.org/98.

quant. "The Fall of a Superstar Psychologist.", *YouTube*, August 5, 2023. https://www.youtube.com/watch?v=Q3tSG8h_O3A.