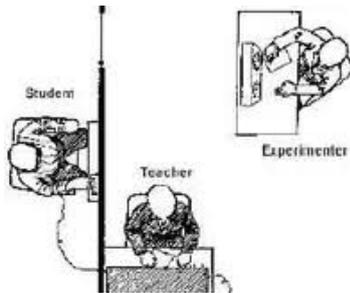


Experiments

- Seminal experiments (Psychology)

- E.g. Milgram's obedience experiment

- Can we run any experiment? What if benefits are extremely large? (e.g. answering a fundamental scientific question) – remember some of the Ethics we talked about



<https://www.simplypsychology.org/milgram.html>



Experiments

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- Type of experiments

- Natural experiments

- Field experiments

- Quasi experiments (we will talk more about this later on in the course)

- Lab experiments

Asch's conformity experiment

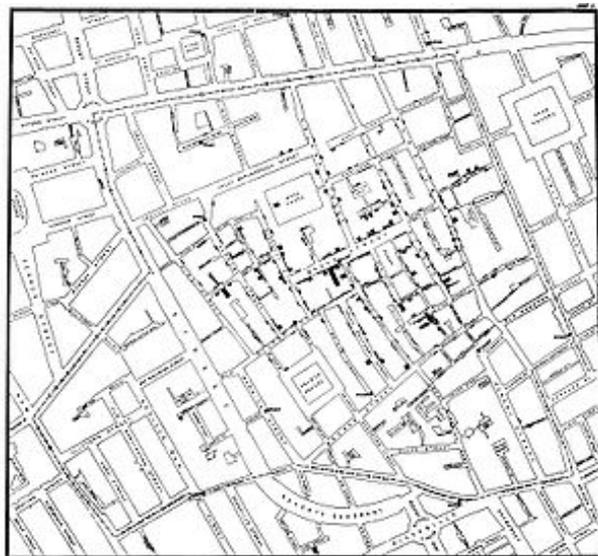


Ver

Natural experiments

• Example: Dr. John Snow and Cholera (London, 1854)

- 500 deaths in one month
- Preconception: Transmission was caused by pollution
- The dots show clusters of cholera cases
 - Cases of cholera were near by the pump
- He realized that the outbreak was spreading because of contaminated water



Natural experiments

- Another example:
 - Effect of daylight saving on traffic accidents (Sood & Ghosh, 2007)
 - Data: 1976-2003, natural experiment: 1986 law changed the time when states switched to DST
 - Result: no short-term effect, positive long-term effect
- Experimenter has no control over an external alteration
- Advantage
 - Behavior is by definition “natural”
- Disadvantage
 - Many times there is no random “assignment,” and researchers have to “demonstrate” causality

Field study experiments (example)

- Question: Are people averse to overhead in charity donations (Gneezy, Keenan & Gneezy, 2014):
- Program cost was \$20,000
- Random assignment (N = 40,000)
 - Control
 - Seed (private donor: \$10,000)
 - Match (up to \$10,000)
 - Overhead (donor: \$10,000 for overhead)

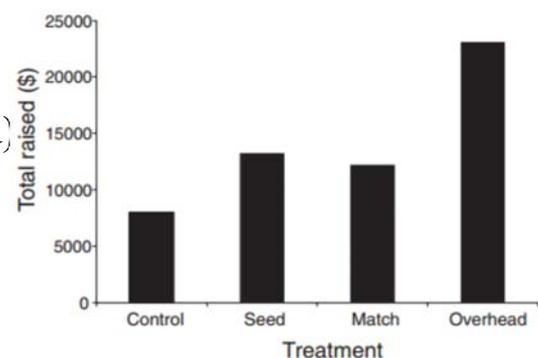


Fig. 2. Total amount raised by treatment.

- Question: Why?

Field experiments (example)

- Question: Can descriptive norms (what other people do) increase towel reuse (Shultz et al., 2008):
- Condo units (each stay = 1 week)
- Random assignment
 - Treatment: “75% of hotel guests choose to reuse their towel each day”
 - Control: Standard message
- They found: large reduction in the number of towels used
- Question: Why?



Many of our guests have expressed to us their approval of conserving energy. When given the opportunity, nearly 75% of hotel guests choose to reuse their towels each day. Because so many guests value conservation and are in the habit of conserving, this hotel has initiated a conservation program.

Washing towels every day uses a lot of energy, so reusing towels is one way you can conserve.

If you would like your towels replaced, please leave your used towels in the basket on the bathroom floor. Towels left hanging on the towel rack tell us that you want to reuse them.

PLEASE REUSE YOUR TOWELS

* If you have questions, please call the front desk *

Field experiments

- Advantages
 - Real-world behaviors
 - It allows to examine measures hard to test in the lab (e.g. energy usage or voter turnout in an election)
 - “Gold standard” in social sciences
- Disadvantages
 - Costly
 - No controlled setting (greater chance of noise)
 - Need for larger samples
 - It may be hard to answer the “why”
 - Difficulty to replicate
 - E.g. get permissions