Notes | Introduction

Welcome to the course

- Syllabus
    - Folder where these notes are kept: folder
    - Text coding assignment to be added
    - Always share the zoom and record
- Introductions

Stealing Fire

- What is the author's objective?
    - Describing the modernist narrative
    - Science is just culture
- Is there a methodology?
- What's wrong with it
- Inferential validity
- Lack of empirical evidence
- Distinguishable from conspiracy theories and reading tea leaves?
- Which brings us to …

Why do we need research methods?

- What are we trying to accomplish when we do research?
- Why?
    - For its own sake; .
    - to appreciate God's work
    - to predict
    - To control

What stands in the way?

- 50K executions for witchcraft
- Quack medicine
- Gilovich notes;
- Regression to the mean: pilot's praise
- Regression effect; see difference
- Bullshit in science today
- Kahneman and tversky
    - The conjunction fallacy: People mistakenly believe that a conjunction of two events (A and B) is more probable than a single one of its constituent parts (A). For example, when given a detailed description of "Linda," people often judge it more probable that she is a "bank teller and active in the feminist movement" than that she is just a "bank teller," even though the former is a statistical subset of the latter.
    - For an illustration of judgment by representativeness, consider an individual who has been described by a former neighbor as follows: "Steve is very shy and withdrawn, invariably helpful, but with little interest in people, or in the world of reality. A meek and tidy soul, he has a need for order and structure, and a passion for detail." How do people assess the probability that Steve is engaged in a particular occupation from a list of possibilities (for example, farmer, salesman, airline pilot, librarian, or physician)? How do people order these occupations from most to least likely? In the representativeness heuristic, the probability that Steve is a librarian, for example, is assessed by the degree to which he is representative of, or similar to, the stereotype of a librarian. Indeed, research with problems of this type has shown that people order the occupations by probability and by similarity in exactly the same way (1). This approach to the judgment of probability leads to serious errors, because similarity, or representativeness, is not influenced by several factors that should affect judgments of probability.

    - Insensitivity to prior probability of outcomes. One of the factors that have no effect on representativeness but should have a major effect on probability is the prior probability, or base-rate frequency, of the outcomes. In the case of Steve, for example, the fact that there are many more farmers than librarians in the population should enter into any reasonable estimate of the probability that Steve is a librarian rather than a farmer.

Kinds of Knowledge

- Hume's Fork.
    - relations of ideas (which are a priori and logically necessary, like mathematics) and
    - matters of fact (which are a posteriori and contingent, like empirical observations).
- Experience: i know john
- Procedural/ know how: knowing how to ride a bike
- Declarative / know what/that/when/where: propositions about the world. Beliefs
    - The sky is blue. Water boils at 100c. Species evolve through natural selection.

Declarative (belief-type) knowledge

- What is knowledge? Plato: jtb
    - I guess there are 151 coins in jar. It's true, I believe it, but is it knowledge?
- Gettier problem. (rhymes with prettier) What if the reason for belief is false?
    - Solutions: jtb + ?
    - Goldman solution: additional condition that the truth must cause the belief
    - Statistical answers: jgb + uncertainty. There are statistical error bars around the answer
- See videos on theory of knowledge by Jennifer Nagel

Explanation and causal theory

- What we really seek is explanations, not facts.
- When we seek explanation, what we want is causal theory
- Theory needs to have a sense of process.
- **Essentialist theories** ("it's in the nature of the beast to act like this") lack a sense of process
    - Aristotle: rocks fall because they have ground nature; smoke rises because it has air nature.

    - Why does this person ask dumb questions in class? Because they are a dumb person. It is in their nature.
    - Personality theory. Why does this person get energized by social situations? Because they are extraverts
- Overly agentic theories
    - People do things because they want to.
    - How to predict turnover?
- Structuralist theories strike middle ground but often don't feel like explanation
    - Structuralism focuses on opportunities and constraints
    - Marriages mostly occur among people who live in the same town
    - Why is there inequality?
        - Need for baseline theories

What is causality?

- A cause is something that gives rise to something else
- Hume's regularity: if Y reliably follows X, then X is a cause of Y.
- Counterfactual theory. If when X doesn't happen, Y won't happen, then X is a cause. HIV
    - This fails in the 2-shooter scenario. A and B both fire gun at C. A is slightly faster so their bullet arrives first. But by the definition, A's bullet is not a cause, since target would die anyway, due to B's bullet
    - This perspective emphasizes cause as dependency and doesn't discuss sufficiency
- Mechanist theory. a cause is an event or process that produces an effect through a specifiable mechanism. For example, in biology, the mechanism of natural selection. This is bread and butter of social science research
    - In this class we study theory building with emphasis on mechanisms
- Probabilistic theory. Non-deterministic version of mechanist theory.

Epistemologies

- Many epistemologies: list
- My simplified view: practical episte and onto

Qual vs Quant

- We tend to associate qualitative research with interpretivist/constructionist/postmodern approaches and quant with positivist/post-positivist approaches
- But this is not a necessary association. Most ethnographers from 100 years ago believed a single, objective "Yanomamo culture" existed. They used the **qualitative method** of participant observation as a scientific instrument to discover, document, and explain that objective reality. They were essentially using qualitative tools to achieve post-positivist goals: creating an accurate, objective "map" of a culture.
- Social constructionism, which we often think of as an epistemology, is a behavioral process that can also be studied scientifically,ie from a non-constructivist perspective

Do we need a separate science of man?

Or can we just fold social sciences under biology and ultimately physics? The argument for a separate science includes these items (which are not mutually exclusive):

- **Human Consciousness and Intentionality:** Unlike natural objects, human beings have consciousness, intentions, and the ability to reflect on their actions
- **Constructivism:** Many social scientists argue that social reality is constructed through human interactions and cannot be understood independently of these processes. Things like social structure, institutions, and identity are social constructions.
- **Meaning**: Without understanding what things mean to people we cannot understand their actions. A central objective for social sciences is the study of meaning.
- **Human Agency and Freedom:** Human beings have the capacity for choice and moral reasoning, which complicates the prediction and control of human behavior in the way natural phenomena can be predicted and controlled.

Worth looking up vitalism in biology, which holds that what makes matter come alive cannot be described mechanically and is therefore not material.