Lecture 26: To Recruit, and Generalizability

Wednesday, November 29, 2023

Your Teaching Fellows:

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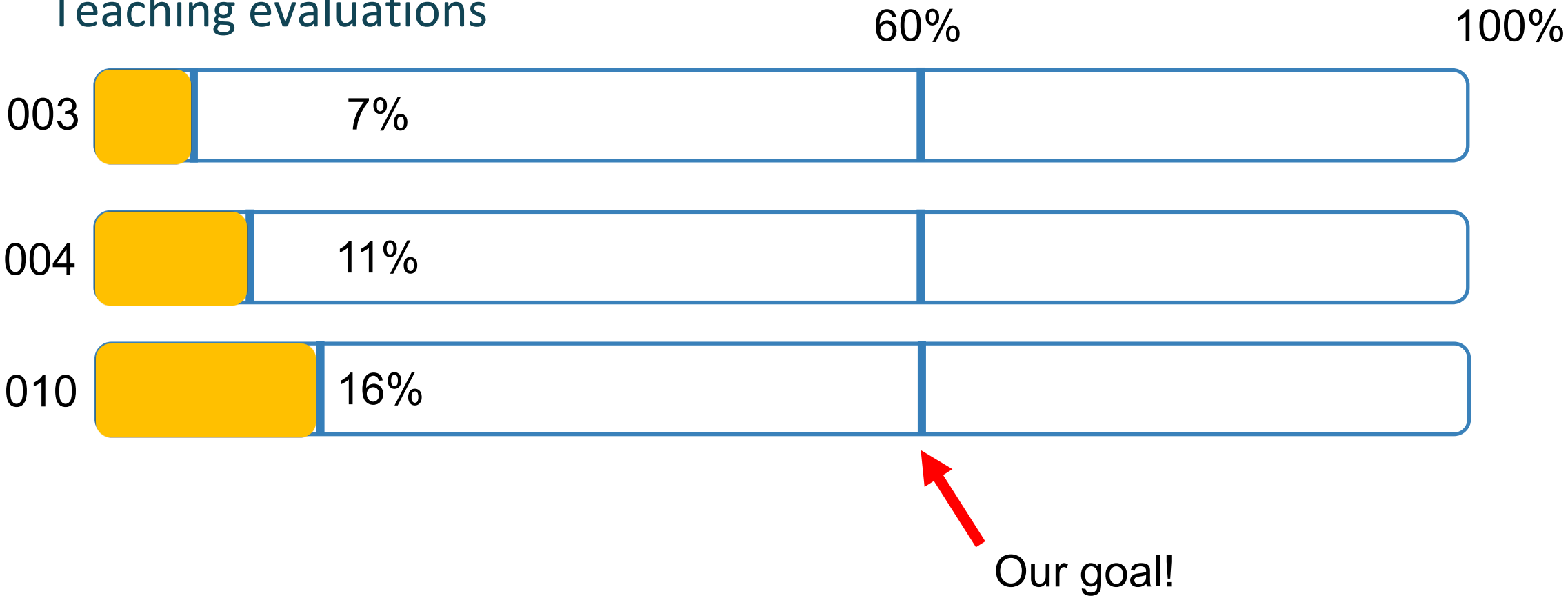
Lectures: MWF 12:00 PM – 1:00 PM (003); 1:00 PM – 2:00 PM (004); 2:00 PM – 3:00 PM (010)
Office hours: Tuesdays 2:00 PM – 4:00 PM

Reminders

- Teaching evaluations



- Finals review session: Dec 14, 2-3:30, Zoom

Recruitment – Sampling techniques

- Two broad categories of sampling techniques:
  - Probability sampling
    - Participants are randomly drawn
    - Likely representative of population
    - High generalisability
  - Non-probability sampling
    - Participants not drawn at random
    - Easy and convenient
    - Low generalisability

Non-Probability sampling

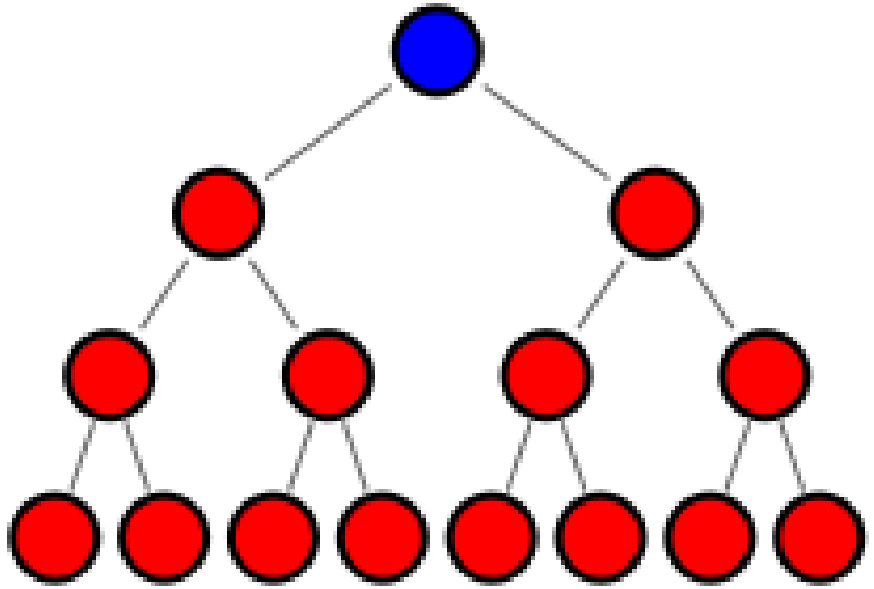
- Convenience sampling
  - Recruit participants whenever and wherever you can

Non-Probability sampling

- Purposive sampling
  - Targeting only people who fit a certain criterion or set of criteria, and recruiting them for study

Non-Probability sampling

- Snowball sampling
  - Asking participants to recommend others to participate, helping researchers accumulate participants



Learning objectives

By the end of this class, you'll be able to

- Recognise generalisability issues with regards to probability and non-probability sampling techniques
- Understand the college sophomore problem
- Weigh the pros and cons of using university students as participants
- Recognise different generalisability concerns in research
- Identify solutions to each generalisability concern

Recruitment – Sampling techniques

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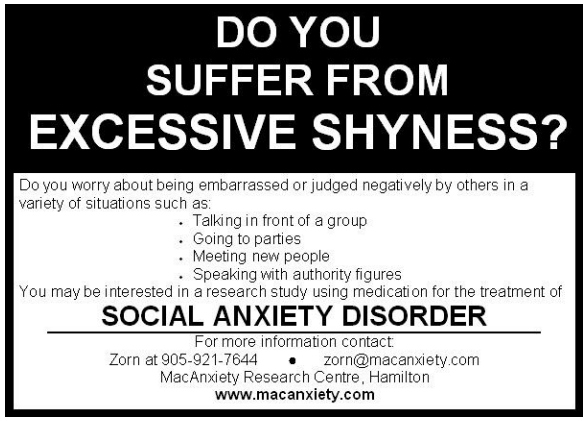
Low external validity → Concern?

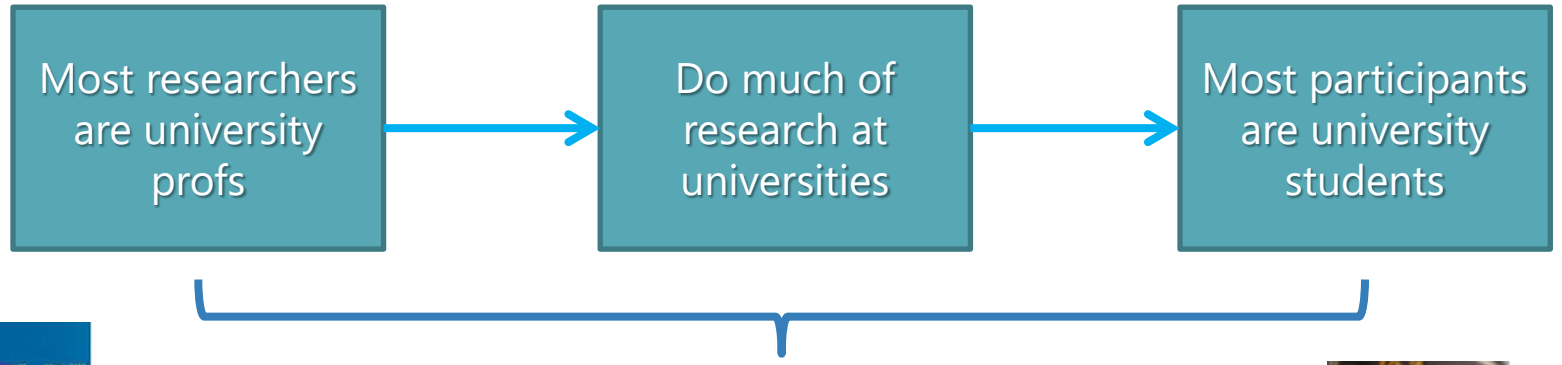


- Non-probability sampling
  - Participants not drawn at random
  - Easy and convenient
  - Low generalisability

- Low generalisability because…
  - Not representative of population
  - Self-selection (probability sampling techniques not immune, but non-probability sampling techniques especially problematic)

Non-Probability sampling

- College Sophomore Problem



Textbook case of convenience sampling

College sophomore problem

Arguments in favour

- For specific universities, there is a lot of diversity
- If just looking for an effect, and there is transparency, it's ok
- Less self-selection because compensation for everyone

Arguments against

- "WEIRD" population, not representative of diversity of entire population the study is based on
- University requires certain SES, this excludes ppl w/ lower SES
- Unethical to base studies on specifically university studies (people who need the research the most are not being included in the study)

College sophomore problem

- Three responses to college sophomore problem:
  - Does not invalidate previous results – just need more findings
    - Failure to replicate = ideas are incomplete, not wrong
    - Why failure to replicate? How might college students and non-college students differ?
      - **Boundary conditions**
  - A lot of research is on very basic processes
    - People have similar basic processes (e.g. vision systems), regardless of whether they're college students or not
  - College populations are actually very diverse spanning many income levels, ethnicities, ages, and other demographics

Generalisability

- Different levels of generalisability:

Generalisability – Settings

- Other experimental settings (experimenters running a study)
  - One experimental setting may not generalise to other experimental settings
  - Interaction effects between participant and experimenter a big factor
    - Psychosocial effects
    - Biosocial effects
  - Problematic when running in different labs

- Solution: Standardise interaction between experimenters and participants

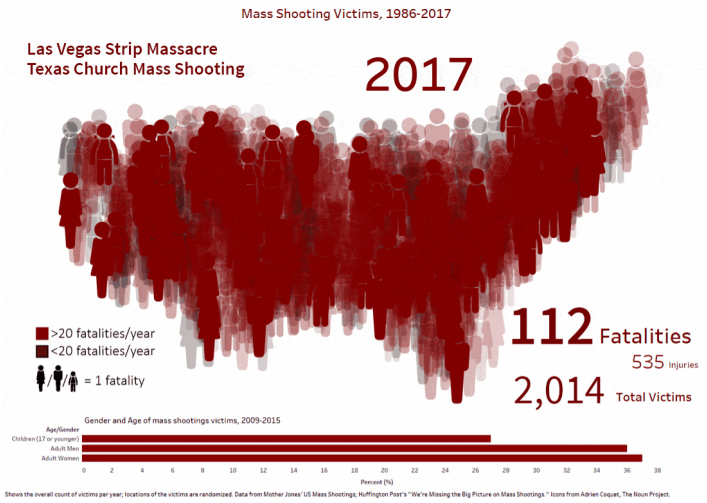
Generalisability – Settings

- The “real world”
  - Studies that resemble real world = high ecological validity
    - Mundane realism = when the task resembles something that one would engage in in everyday life

- Solution: Find or create DVs and procedures high in mundane realism

Generalisability – Settings

- The “real world”
  - Studies that resemble real world = high ecological validity
    - Experimental realism = when the setting induces a realistic experience, even in an artificial setting



- Solution: Include more realistic designs (within reason)

Generalisability – Settings

In lab setting

Tell participants about genetic/environmental explanation for crime → Ask them how guilty they think some perpetrator would be

Provide realistic case report with explanation for crime → Ask participants to pass judgment on perpetrator in case report

In more realistic setting

Generalisability – People

- College sophomore problem – already discussed this
- "Solution" – collect samples outside of college, and statistically analyse whether their responses are different
  - Look for interactions!

Generalisability – People

- Demonstrable differences between men and women (psychological literature on other genders lacking)
- Different genders may interpret variables differently, or respond differently

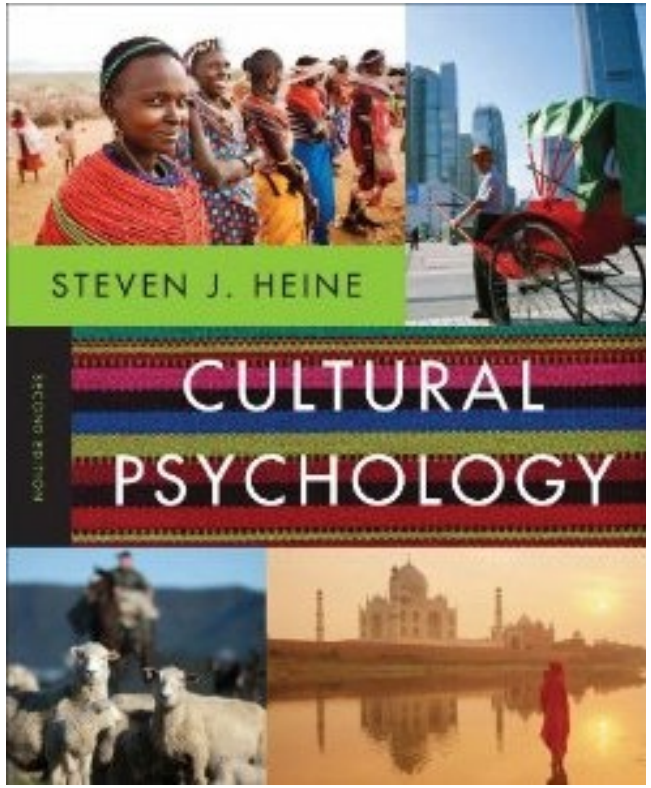
- Solution: Include different sexes and genders as participant variables to analyse responses
  - Look for interactions!

Generalisability – People

		Gender		
		Women	Men	
Game violence	Mortal Kombat	5.05	7.01	6.03
	PGA Tour	4.61	4.60	4.60
		4.83	5.80	
		+0.44	+2.41	+1.43
		A bit stronger white noise	*Way* stronger white noise	OVERALL: Stronger white noise after violent game

Generalisability – People

- People from different cultures differ in many measurable ways



Generalisability – People

W estern
E ducated
I ndustrialised
R ich
D emocratic

< 15% of world's population is basis of theories about 100% of the world


Dr. Steven Heine


Dr. Ara Norenzayan


Dr. Joseph Henrich

- Solution: Collect data from other cultures
  - Look for interactions!