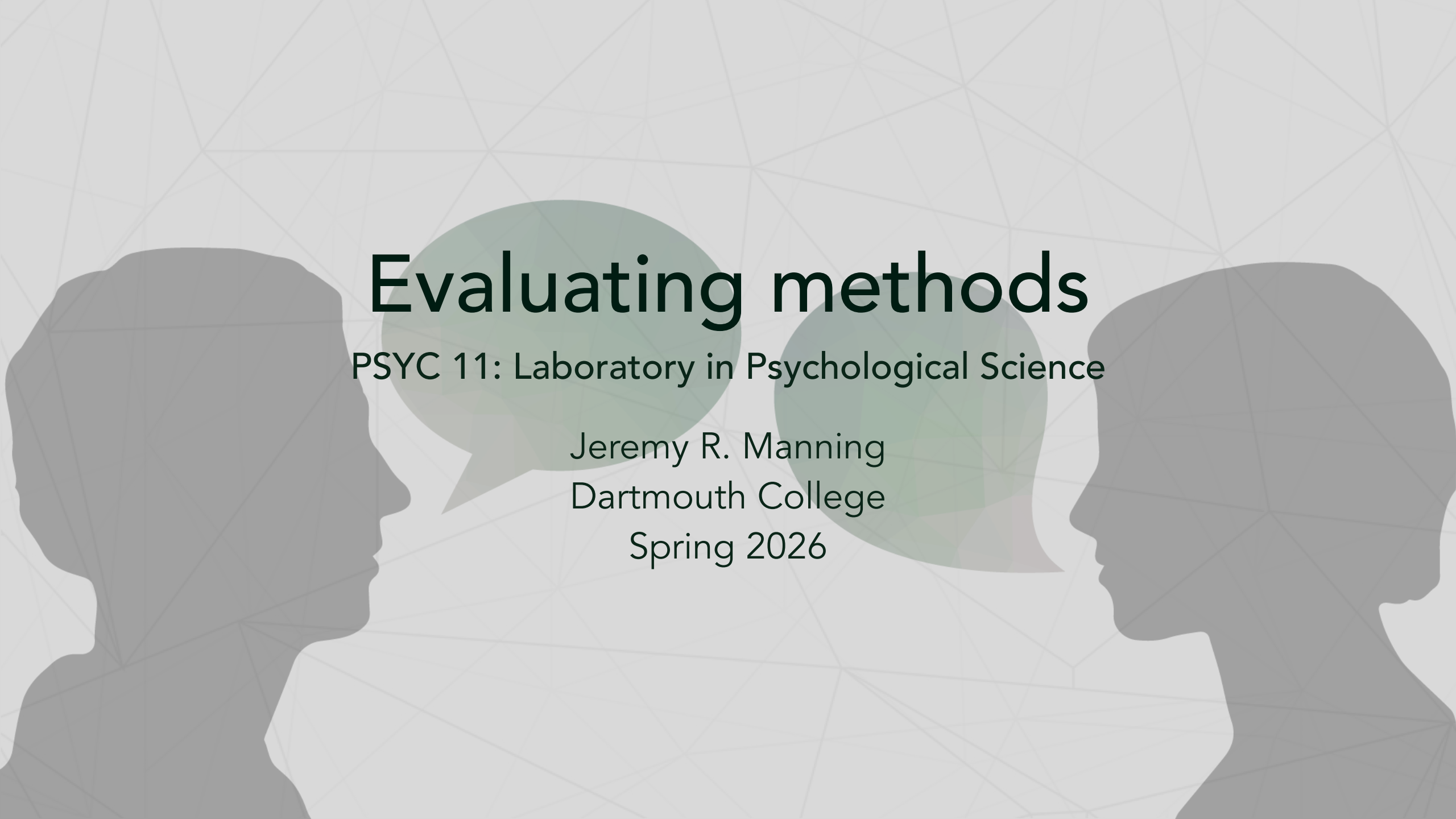

# Evaluating methods

## PSYC 11: Laboratory in Psychological Science

Jeremy R. Manning
Dartmouth College
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# What makes a "good" methods section?

**Three lenses**

- It produced the **intended outcome** (the reproduced drawings matched)
- People following the instructions **understood what to do** (few assumptions needed)
- The procedure wasn't **overly complex** or time-consuming

**What do you think?**

Which of these three criteria matters most? Can they conflict? For example, could instructions be crystal clear but produce the wrong outcome? Could vague instructions still produce a good result?

# How did your group's instructions hold up?

**Think-pair-share**

- Did the reproduced drawings match the originals? Where specifically did they diverge?
- What assumptions did people make when following your instructions? Were any assumptions *correct* despite not being stated?
- If someone followed your instructions "perfectly" but the drawing still looked wrong, what does that tell you about the instructions vs. about the person?
- What would you change if you could rewrite them knowing what you know now?

# What data do we have?

**Available variables**

- Original drawings and instructions
- Reproduced drawings (images)
- Lists of assumptions made about each set of instructions
- Ratings of how closely instructions were followed
- Evaluations of instruction quality (appearance, meaning, clarity, efficiency)

# What do the assumptions data tell us?

**It's not straightforward**

- More assumptions **could** mean more ambiguity
- But more complex instructions might also require more assumptions while conveying more information
- If the end product is still correct, those ambiguities might not matter much
- The **type** of assumption may matter more than the **number**

# Evaluating your own vs. others' work

**Think about it...**

- When you rated or evaluated, which criteria did you prioritize? Were they the same criteria the *writer* would have chosen?
- Would you rate your **own** group's instructions differently than outsiders did? In which direction, and why?
- Peer reviewers in science face the same challenge: they evaluate work without having done it. What biases might creep in? How does "insider knowledge" about your own instructions change your evaluation?

# Framing for the lab report

**Connecting to the bigger picture**

- Your lab report should connect these data to a broader question about communication and methods
- Think about: What did this exercise teach you about writing for reproducibility?
- Use data and examples to support your conclusions

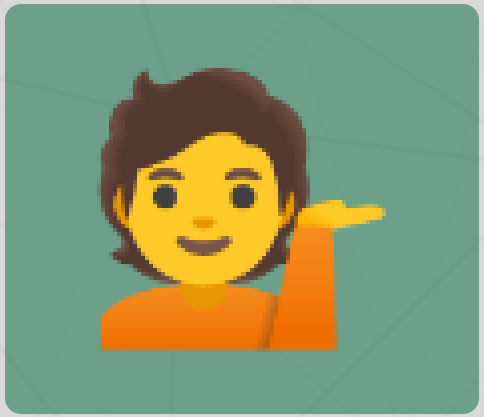
# Sample analyses

Open analysis notebook in Colab

# Questions? Want to chat more?

Email me

Join our Slack



Come to office hours

**Up next...**

- Write your lab report using the data and analyses from this week; due **Monday** at 11:59pm!
- Check canvas for the lab report rubric
- Next week: data sleuthing lab! Important: no class on Wednesday; we'll do part 2 of the lab during our Thursday X-hour instead.