

The background features a light gray geometric pattern of overlapping triangles. In the center, two dark gray silhouettes of human heads in profile face each other. Between them are two overlapping speech bubbles, one light green and one light blue.

Synthesizing across studies

PSYC 11: Laboratory in Psychological Science

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Spring 2026

When studies agree (and when they don't)

Convergence and Divergence

- When many studies **agree**, our confidence increases
- When studies **disagree**, we need strategies to figure out what's going on
- Disagreement is often more informative than agreement

Strategies for synthesis

Four Approaches

- **Occam's razor:** prefer the simpler explanation
- **Look for logic gaps:** are there hidden assumptions or missing steps?
- **Create a narrative:** tell a coherent story that accounts for the evidence
- **Trust your intuitions:** if it doesn't make sense to you, it won't make sense to others

Discussion: Do these papers agree or disagree?

Breakout Groups (15 min)

- Each group: take the 2-3 papers you've been reading for the lit review lab
- For each pair of papers, discuss:
 - Do the findings **support** each other, **contradict** each other, or address **different questions**?
 - If they disagree, which do you find more convincing, and why?
 - How would you tell a unified story that accounts for both?
- Be ready to share one interesting agreement or disagreement with the class

Creating a narrative

Storytelling as Synthesis

- Think about how you'd explain the phenomenon to a friend
- What key elements do you need? Background, key findings, connections, conclusion
- A good narrative makes the reader feel like each finding **follows naturally** from the last

Being honest about uncertainty

Limitations Matter

- Be open about what the evidence supports vs. what is speculation
- Flag alternative interpretations
- Identify what **future work** could resolve the remaining questions

Where to find good synthesis writing

Examples to Learn From

- **High-impact journals** (Nature, Science, PNAS): written for a broad audience
- **Review papers and opinion pieces** (TICS, Nature Reviews Neuroscience): extended synthesis
- **Long-format articles** (Psych Review, JEP: General): in-depth theoretical arguments

Apply it to your lab work

Today's Goal

- Continue working on your literature review
- Focus on **synthesizing** across your sources, not just summarizing each one
- Draft the narrative thread that connects your papers