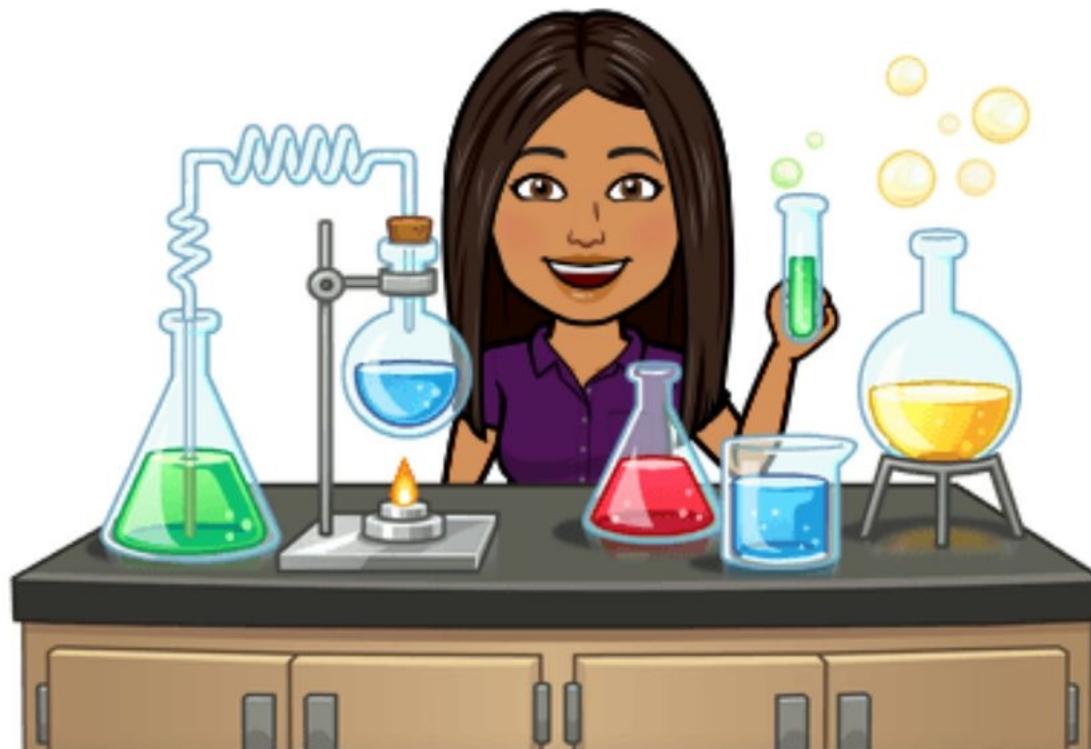


What's my question?



The Scientific Method

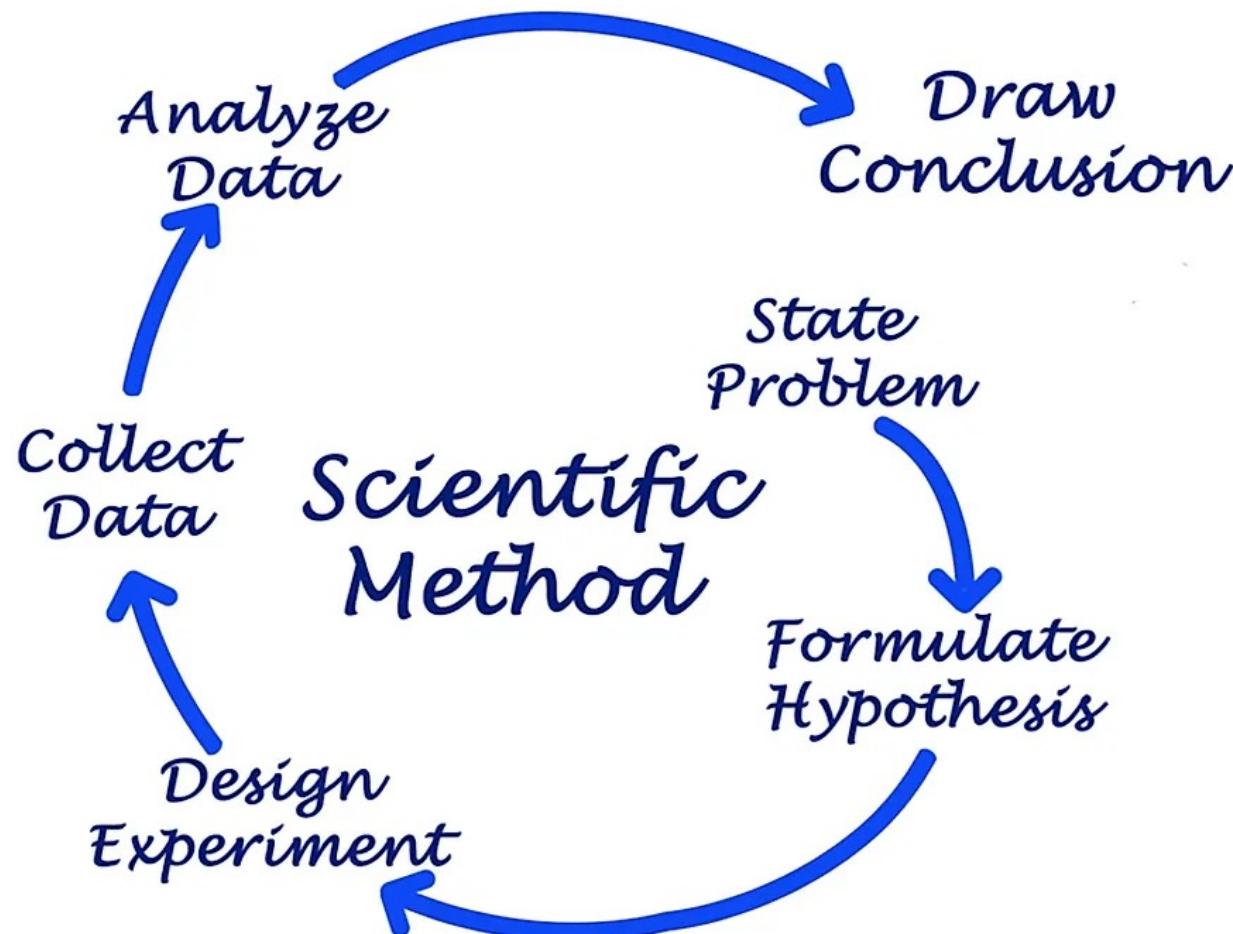


1. Scientific method

Hypothesis, experimental design, analysis, conclusion

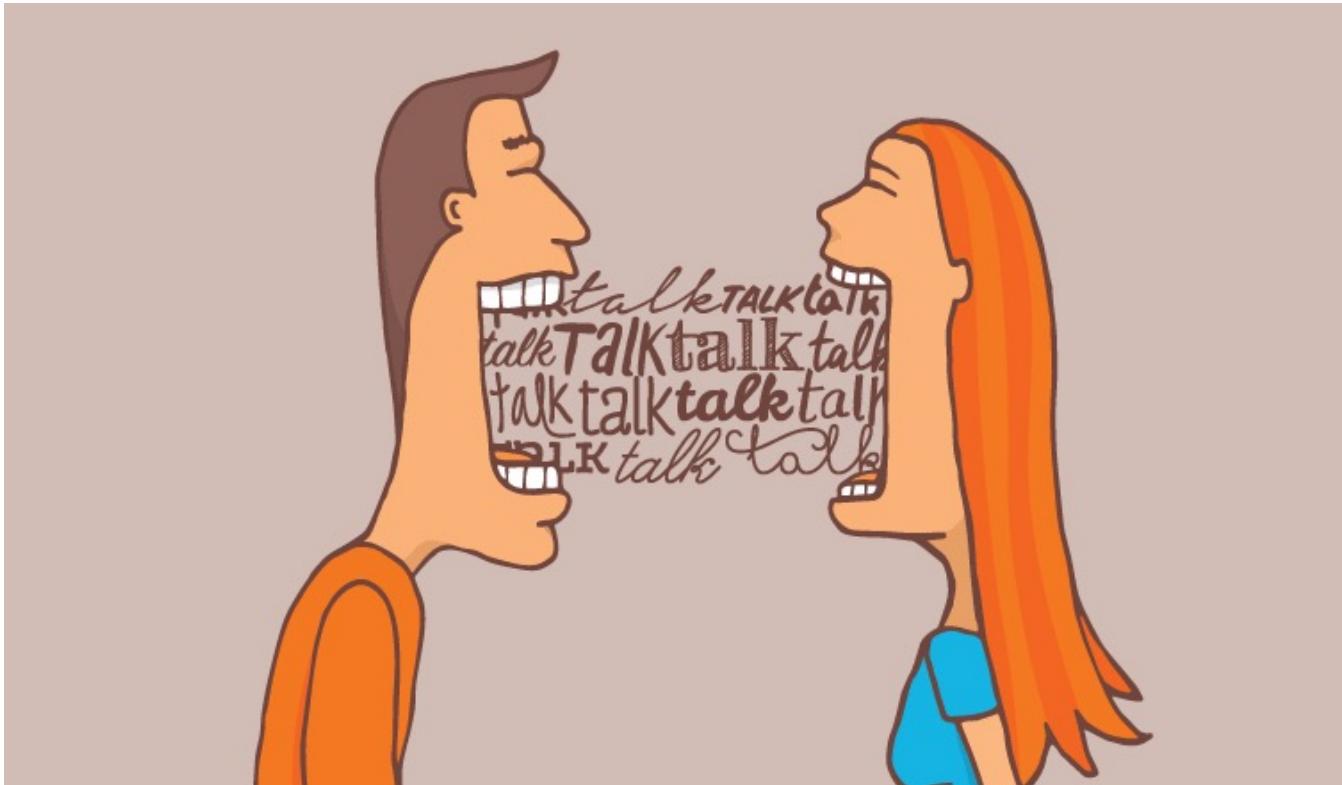
2. Research projects

Planning, seeds



Science as an ongoing process

State a problem or question



Do conversations end when people want them to?

An occurrence guided by what, when, why, how, where, or who

Formulate hypothesis

- Hypothesis: *If {people come to a conversation with a goal or desire}, then we might expect {conversation to end when they have achieved it}*
- Predictions:
H₁: actual duration = desired duration
H₀: actual duration ≠ desired duration

Design experiment

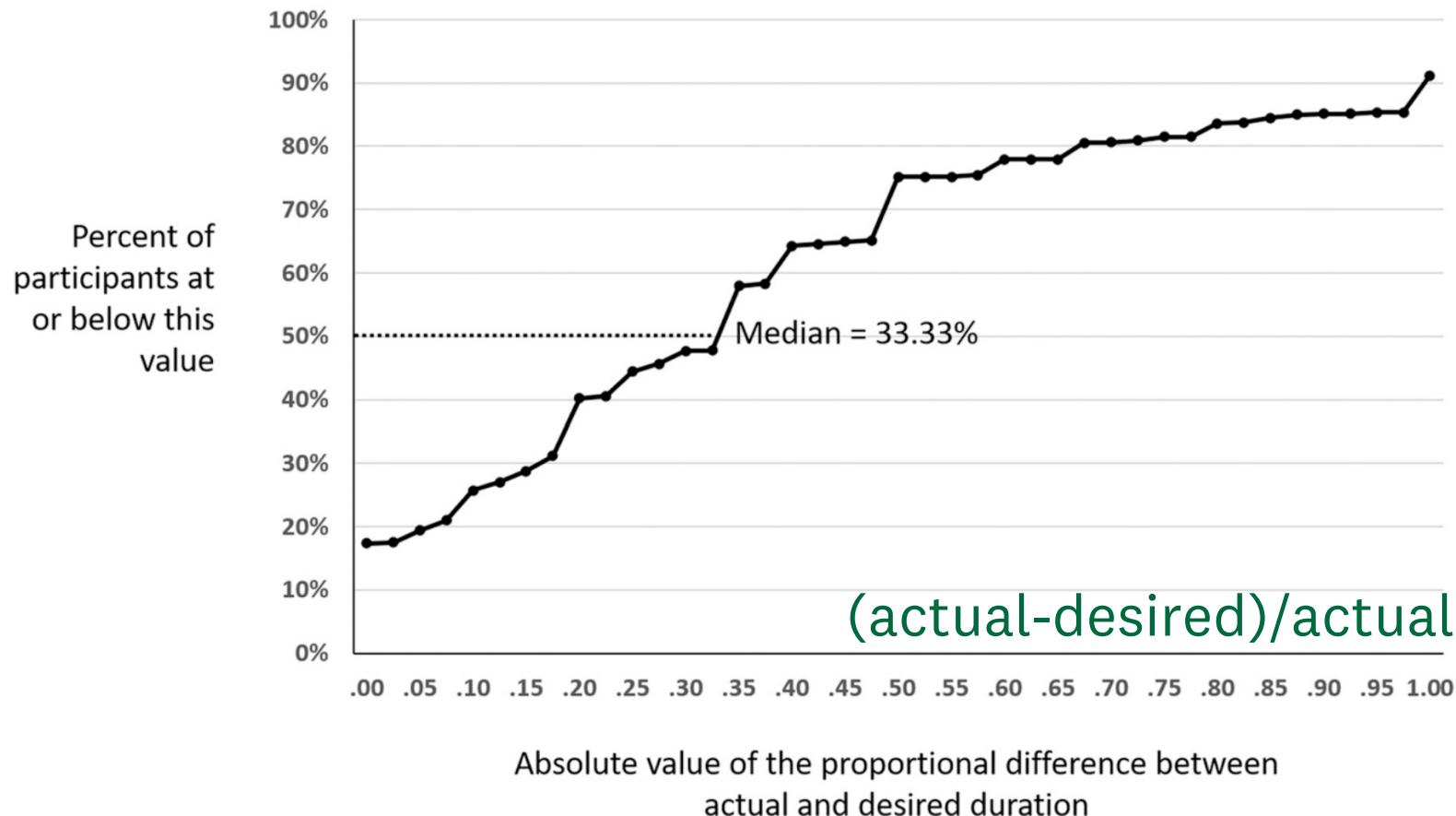
- Procedure: Ask people to recall their most recent conversation and report its duration and when they had wanted it to end
- Variables: Actual duration, desired duration

Procedure for testing the predictions

Collect data

- Measurement: Phone/online survey

Analyze data



Actual duration: 13.97 ± 11.51 ($M \pm SD$ mins)

Desired duration: 15.88 ± 17.91 ($M \pm SD$ mins)

Results

Draw conclusion

- Conclusion: Conversations do not end when people want them to end



H_1 : actual duration = desired duration
 H_0 : actual duration \neq desired duration

Draw conclusion

- Interpretational limitations: Data consist of indirect and subjective self-reports

Publish

Significance

Social connection is essential to physical and psychological well-being, and conversation is the primary means by which it is achieved. And yet, scientists know little about it—about how it starts, how it unfolds, or how it ends. Our studies attempted to remedy this deficit, and their results were surprising: conversations almost never end when anyone wants them to! At a moment in history when billions of people have been forced to curtail their normal social activities and to reimagine this one, a scientific understanding of conversation could hardly be timelier.

Do conversations end when people want them to?

Adam M. Mastroianni^{a,1} , Daniel T. Gilbert^a , Gus Cooney^b , and Timothy D. Wilson^c 

Dissemination

1. Scientific method

Hypothesis, experimental design, analysis, conclusion

2. Research projects

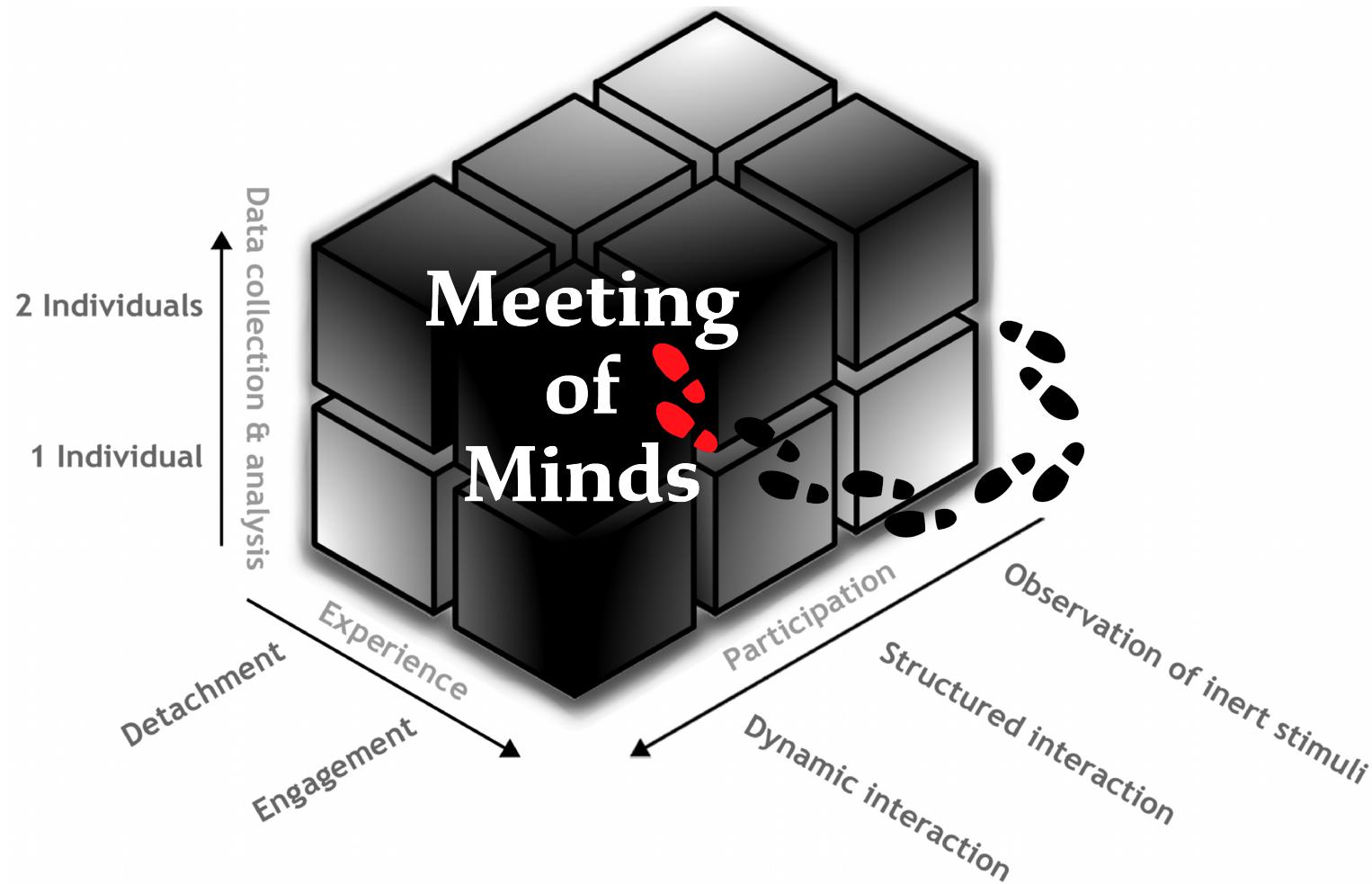
Planning, seeds



Research projects

DARTMOUTH

Week 5	Exam	X-hour	X-hour
Week 6	The Scientific Method <i>Team Assignments</i>	Lab 5: Physiology	Research: Hypothesis
Week 7	Lab 6: Lab Studies	Lab 7: Online Studies	Research: Experimental Design
Week 8	Lab 8: Data Analysis	R-hour	Research: Data Analysis
Week 9	Anatomy of a Paper	R-hour	Research: Conclusion
Week 10	3/7 <i>Research Report due</i>		



Adapted from Schilbach & Timmermans, 2013

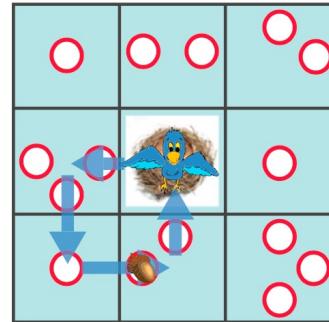
The “dark matter” of social neuroscience



Seed I: Beliefs in communication



Communicator
(participant)
moves the bird, visible
to the Addressee



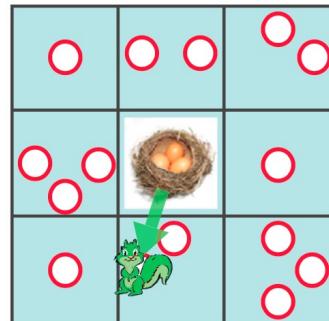
Presumed adult addressee



Presumed child addressee



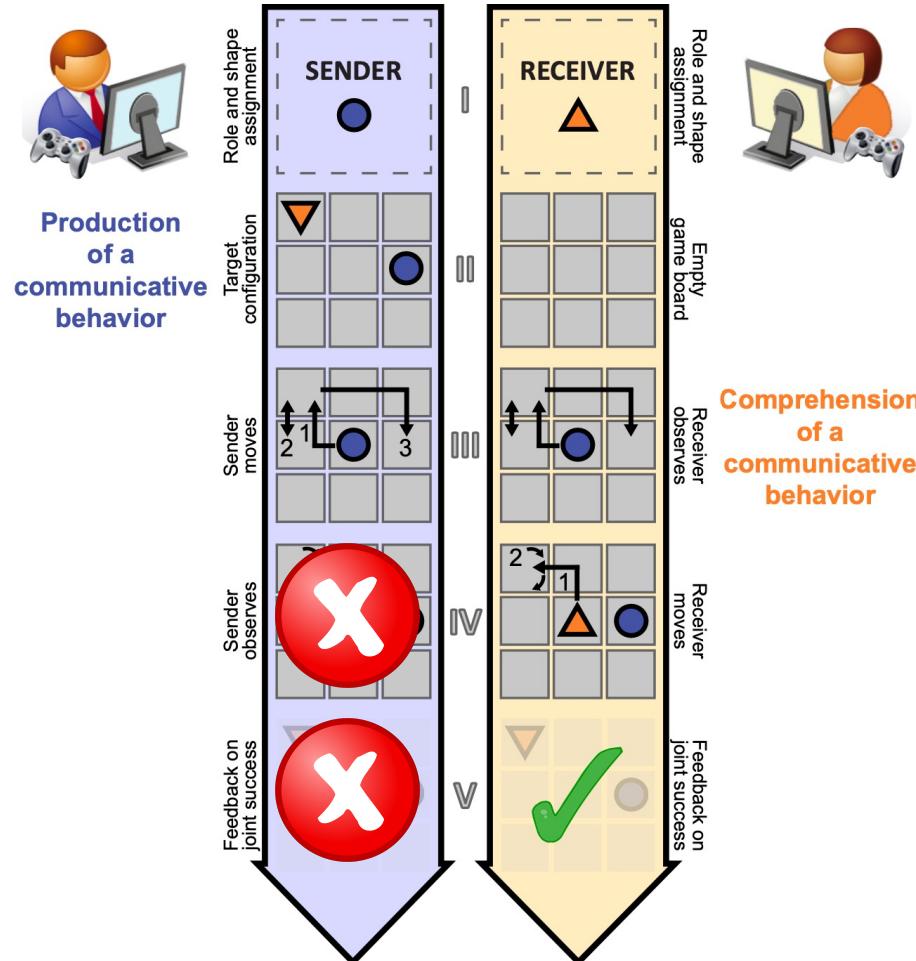
Addressee
('role-blind' confederate)
collects the acorn based
on bird movements



Do people adjust their communication spontaneously (sociocentric) or only when needed (egocentric)?



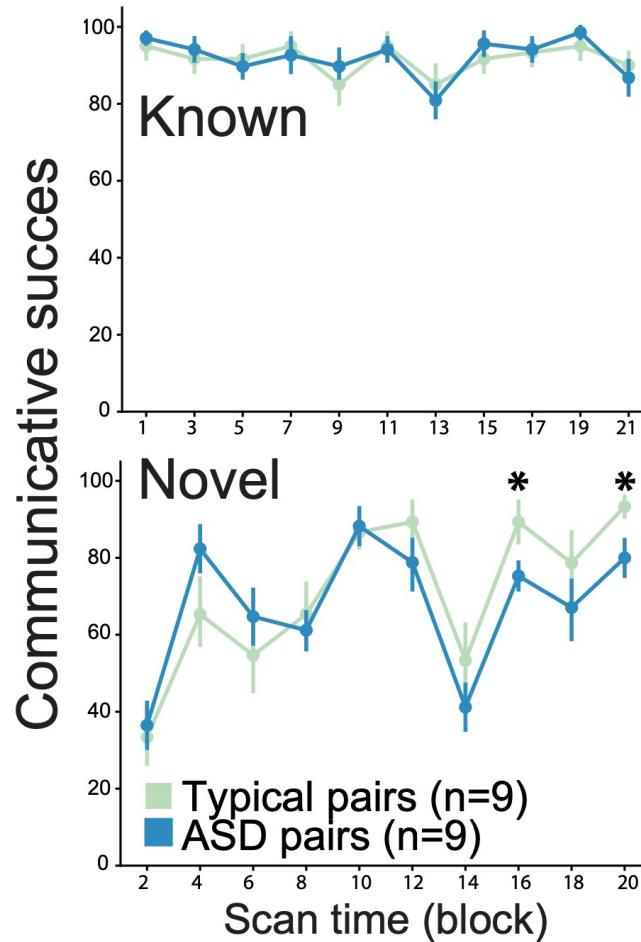
Seed II: Interpreting interpretations



Do people consider how others interpret their behaviors?



Seed III: Autistic communication



What makes communication challenging for some individuals?



Seed IV: Online conceptual pacts

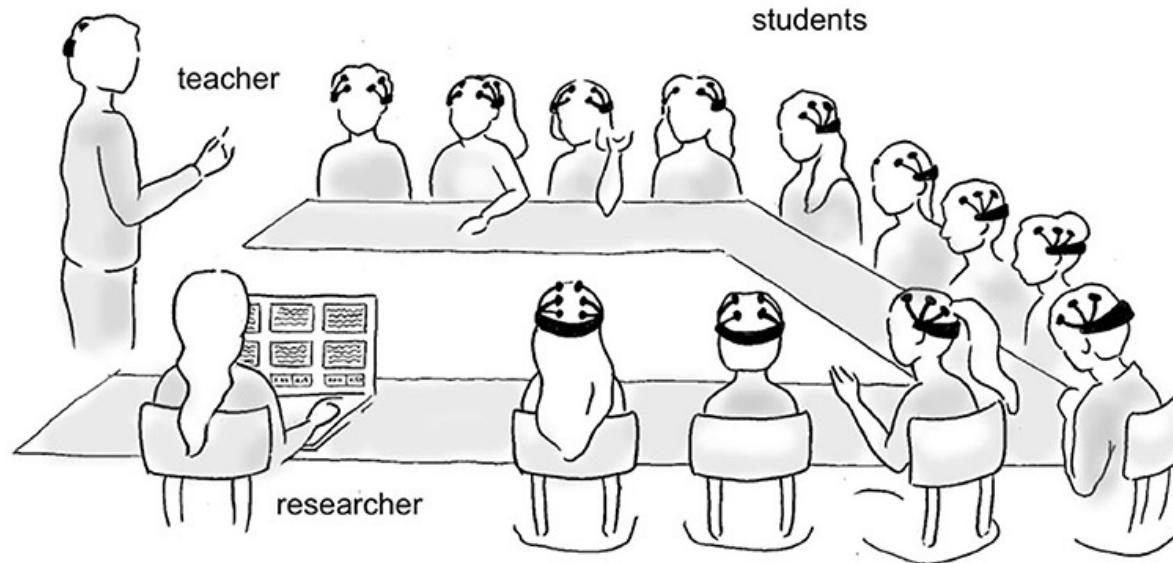
A screenshot of a Twitter post from Arjen Stolk (@StolkArjen). The post was made 1 second ago and includes the hashtag #conceptualpact. Below the tweet are standard social media interaction icons: a speech bubble, a retweet symbol, a heart, an upward arrow, and a reply symbol.

Arjen Stolk @StolkArjen · 1s
#conceptualpact

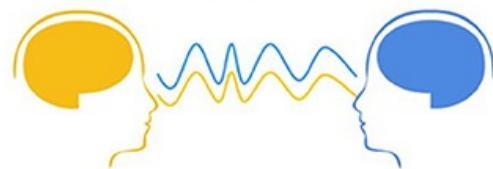
Do people refer to the same thing
when using the same word?



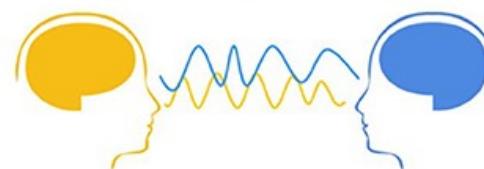
Seed V: Interpersonal synchrony



High Brain-To-Brain Synchrony
(more engaged in class)



Low Brain-To-Brain Synchrony
(less engaged in class)



Is a conversation equally engaging for all involved parties?



Team assignments

- Small groups of up to 4 individuals
- Assignments due tonight
- Present your research hypothesis on Friday (~10 mins, no more than 5 slides)



- The scientific method provides a means to find explanations for phenomena backed by evidence

- Lab 5: Physiology
- *Team Assignments due tonight*
- *Presentations on Friday*