

Spiral of Silence in online political deliberation

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Spiral of Silence

(Noelle-Neumann 1974)

- Opinion dynamics
 - Changing opinions v willingness to share
- **Fear of isolation**
 - Avoid being on the wrong side of a debate
- **Willing to share** my opinion if I believe it to be in the majority
- Paradox: how does a minority opinion hold majority status?

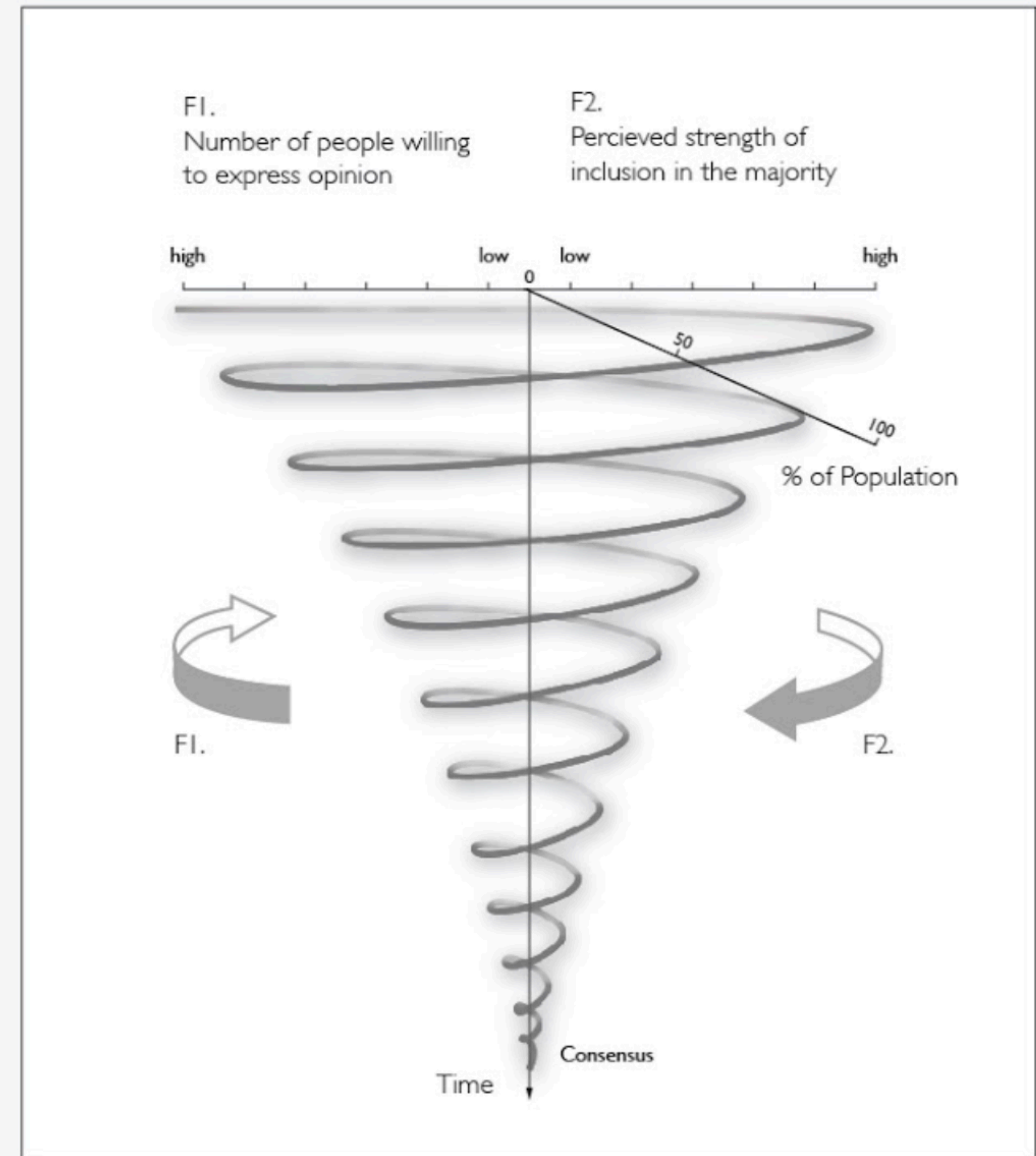


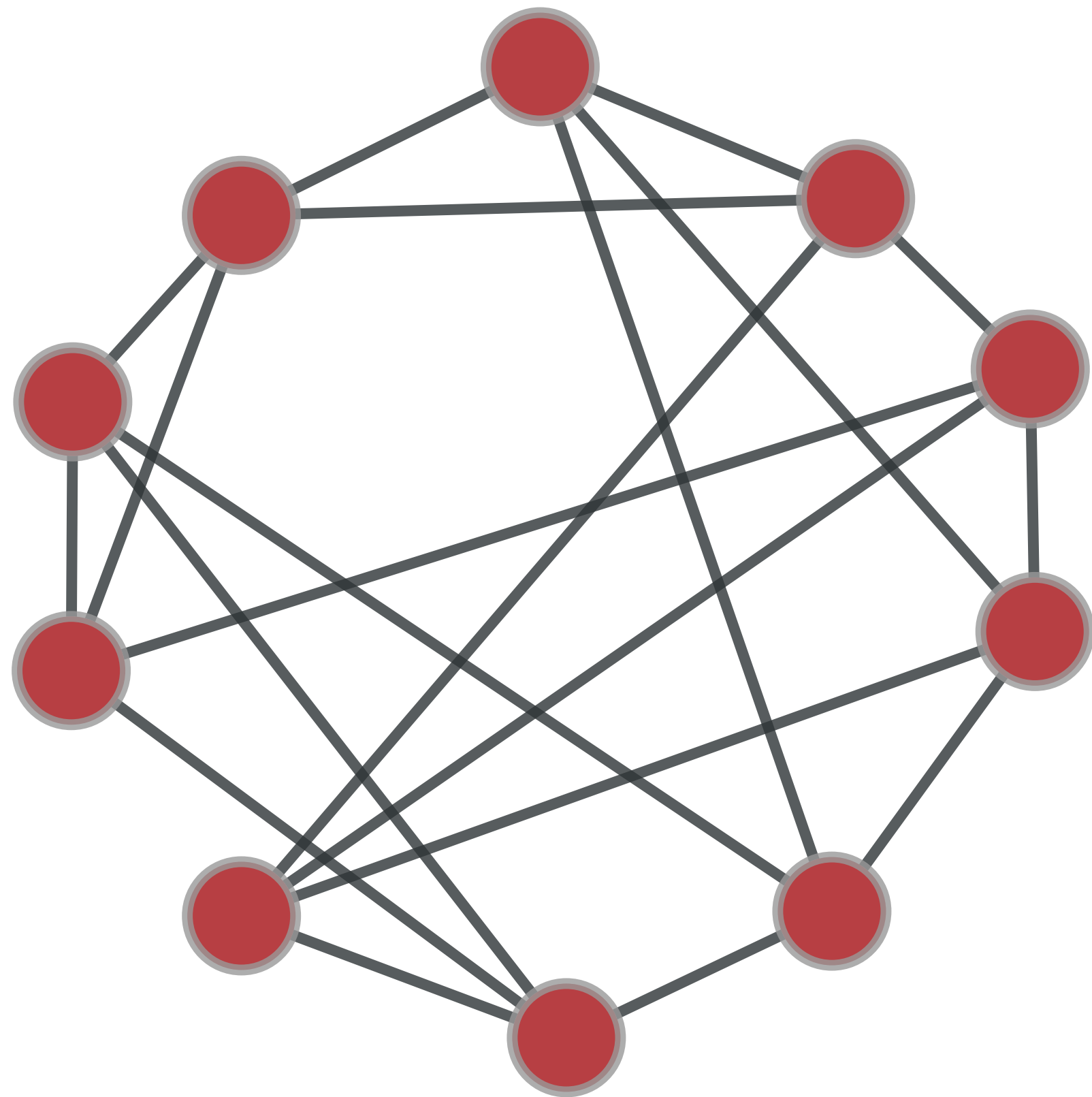
Fig. 2. The spiral of silence: conceptual graphic (adapted from graphic presented in Scheufele, 2007)

Can **online** settings where there is incentive to **connect** lead individuals to feel more **fearful** of being **isolated** and thus, become less willing to share their true **opinions** on **controversial topics**?

PROJECT —Connections game

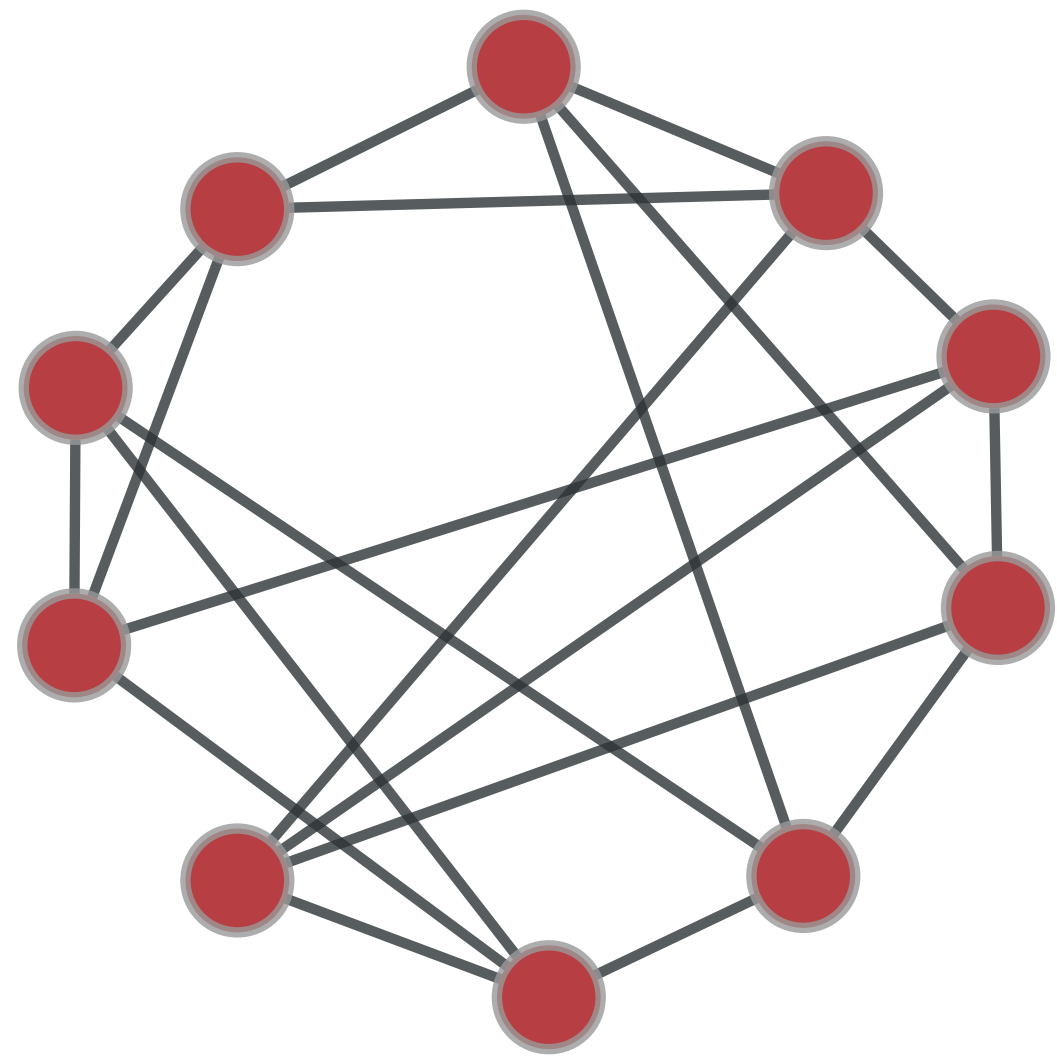
Does the **incentive to connect** lead to **higher fear of isolation** and thus, make individuals **less willing to share** their true opinions on controversial topic?

25-30 participants



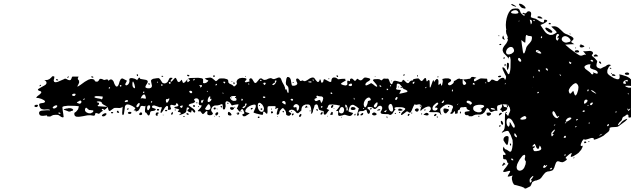
1. Do you agree or disagree with the following statement? **“Gay male and lesbian couples should have the same rights to adopt children as straight couples.”**
2. Would you like to share your answer with your connections?

Initialisation

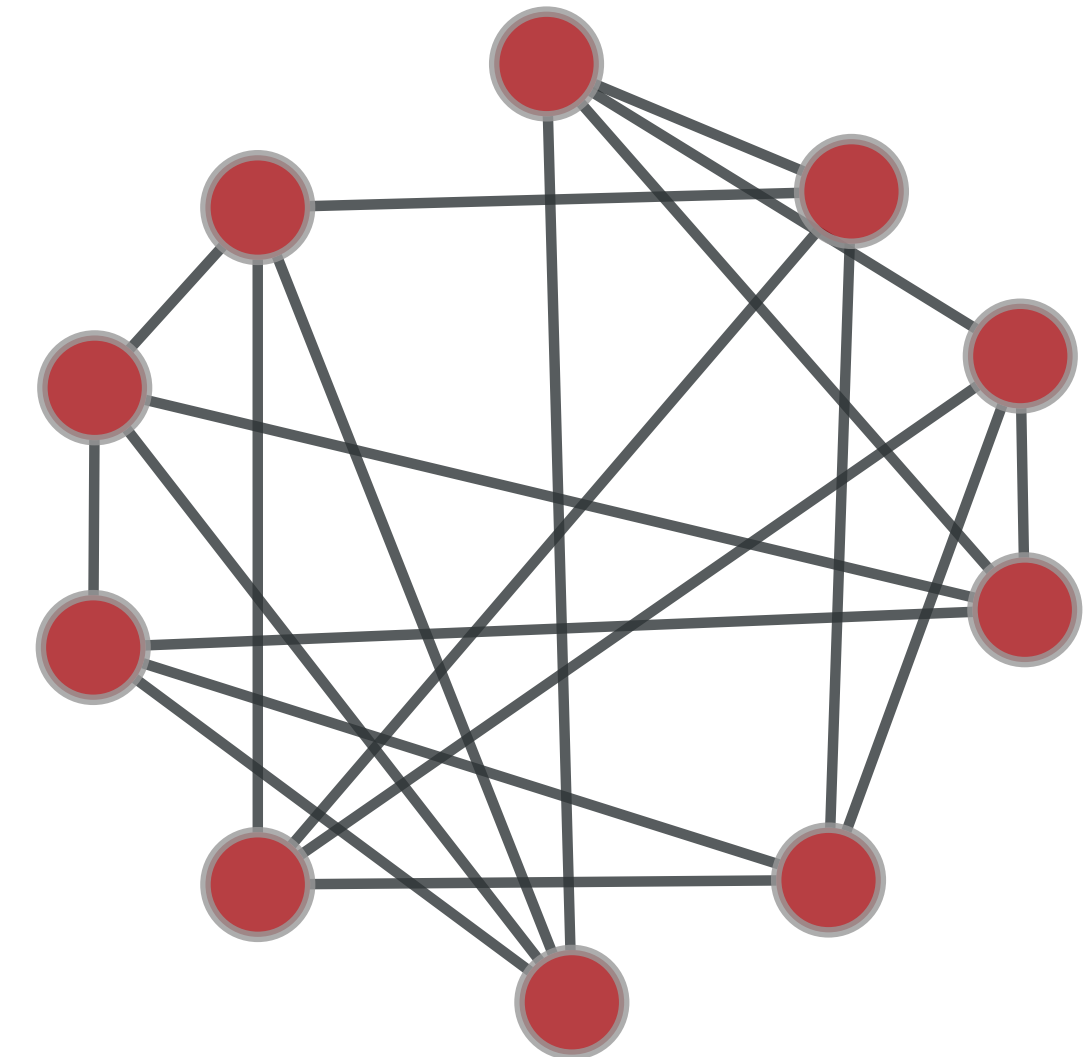


Questionnaire

1. Do you agree or disagree with the following statement? **“Gay male and lesbian couples should have the same rights to adopt children as straight couples.”**
2. Would you like to share your answer with your connections?



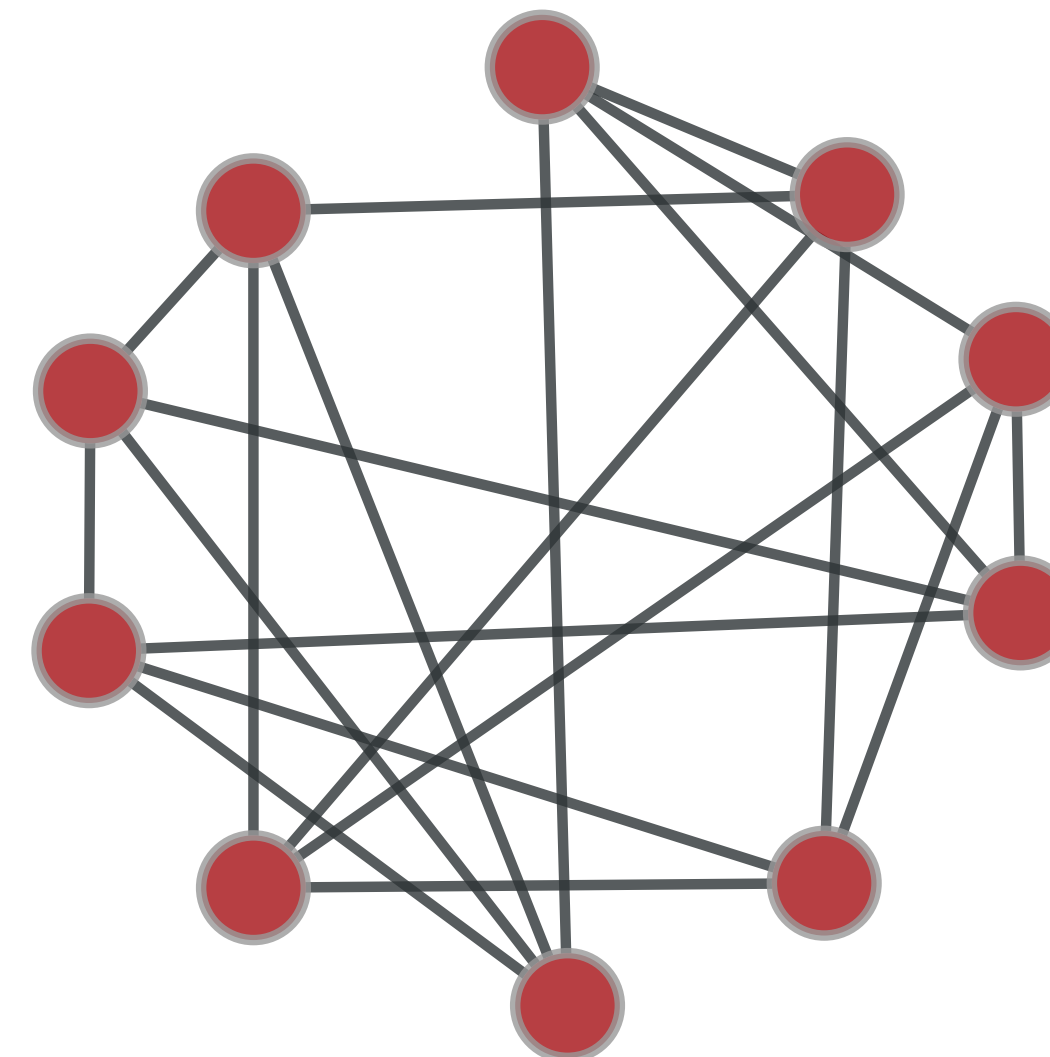
Connections game



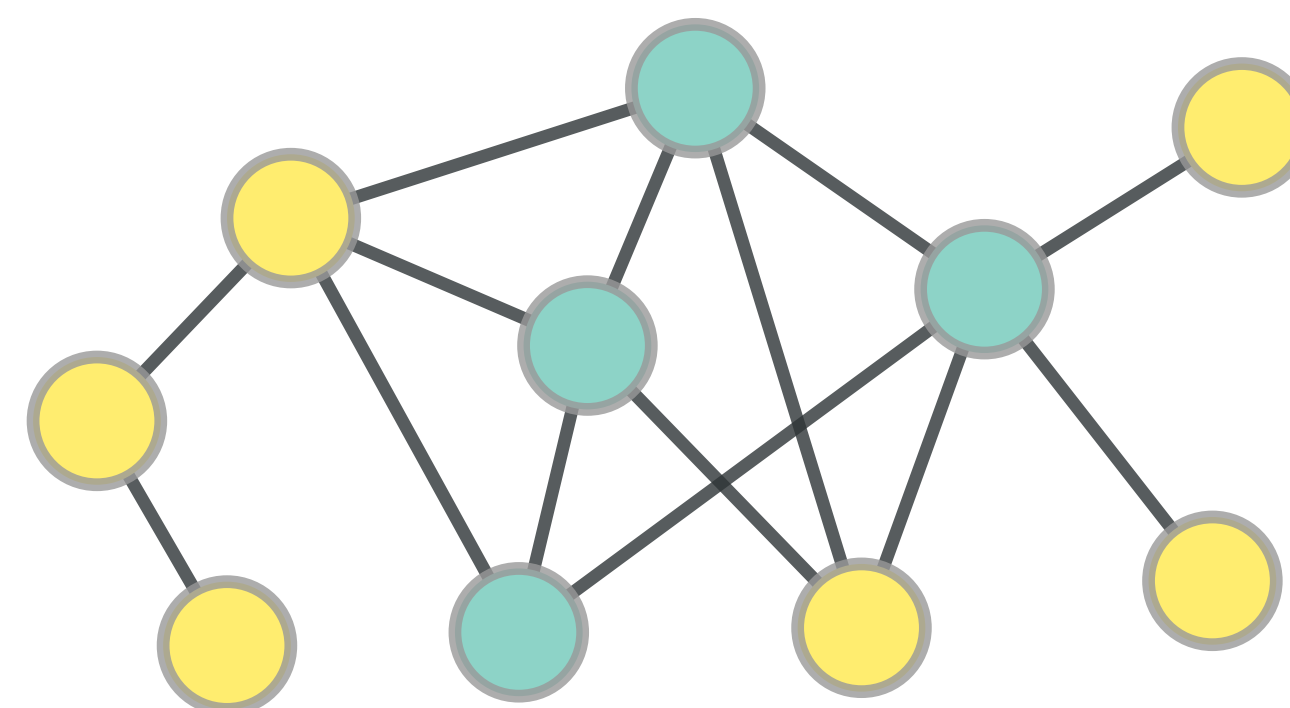
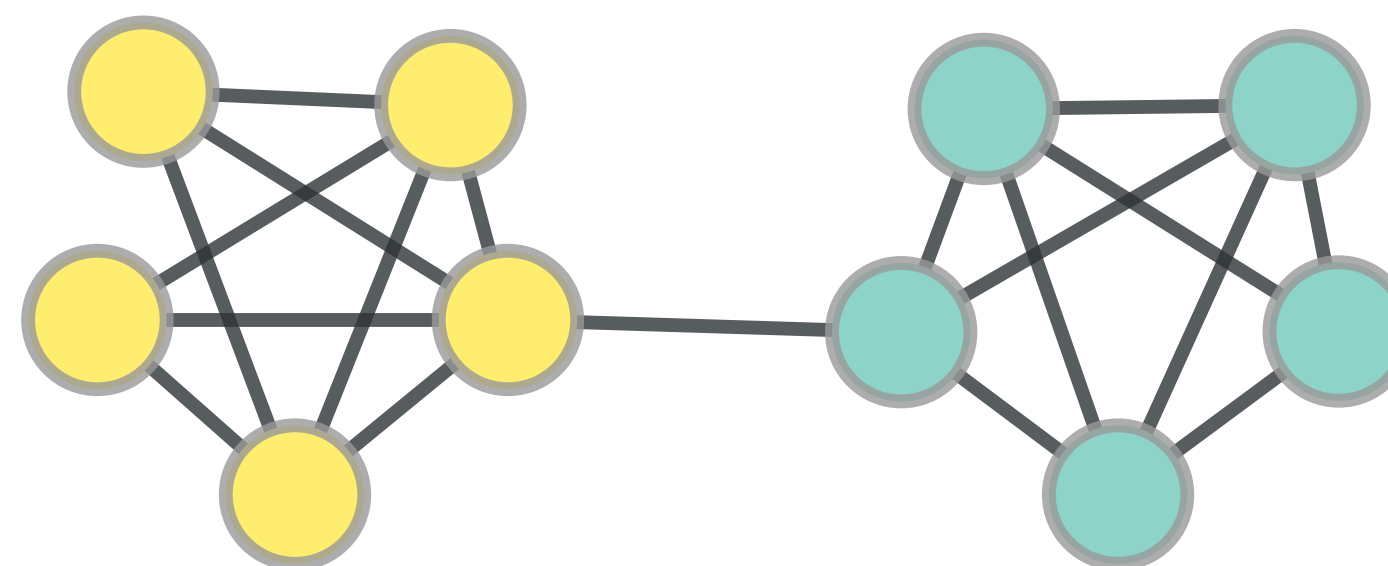
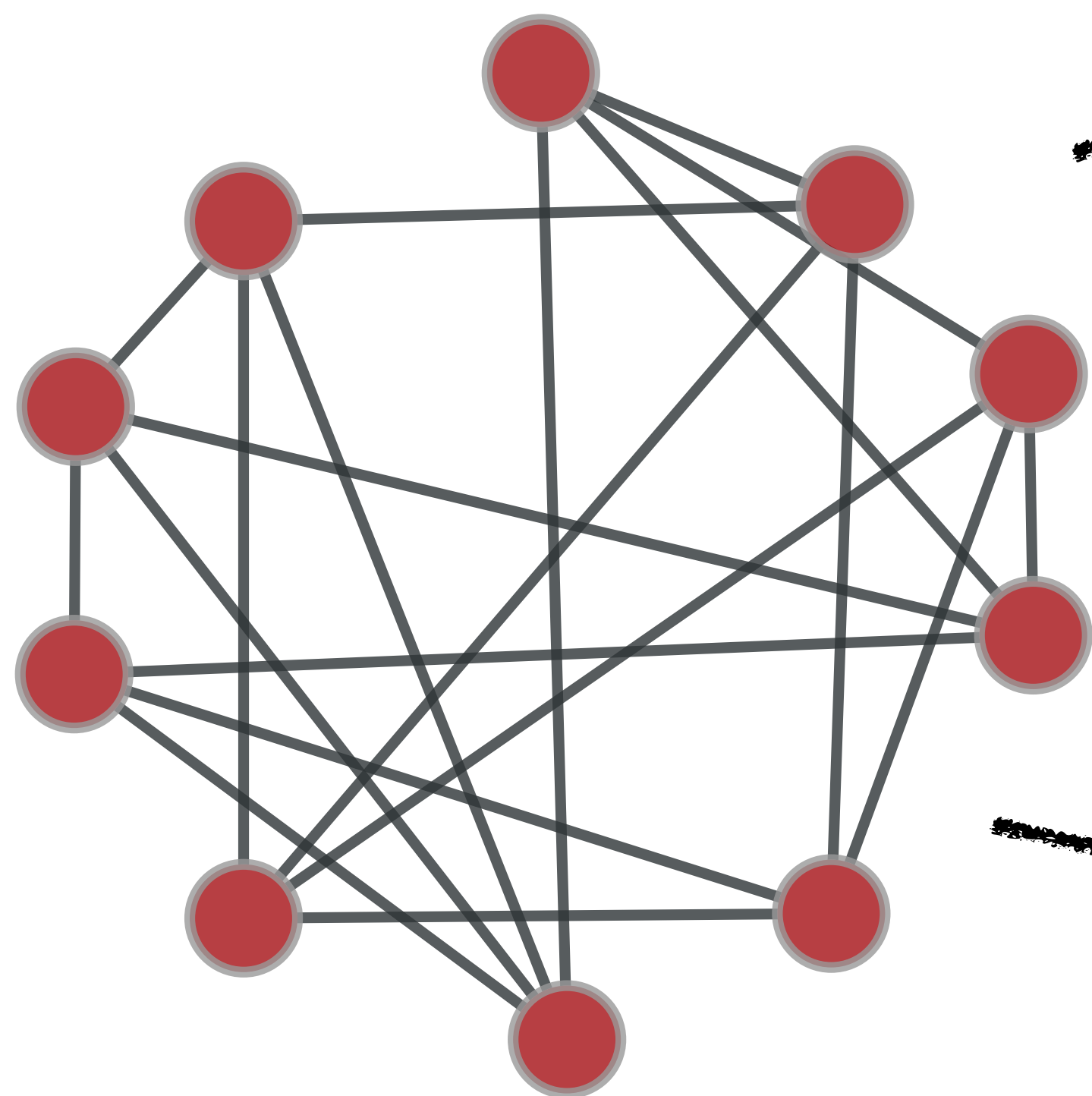
Questionnaire

1. Do you agree or disagree with the following statement? **“If a close family member was a gay man or lesbian, I would feel ashamed.”**
2. Would you like to share your answer with your connections?

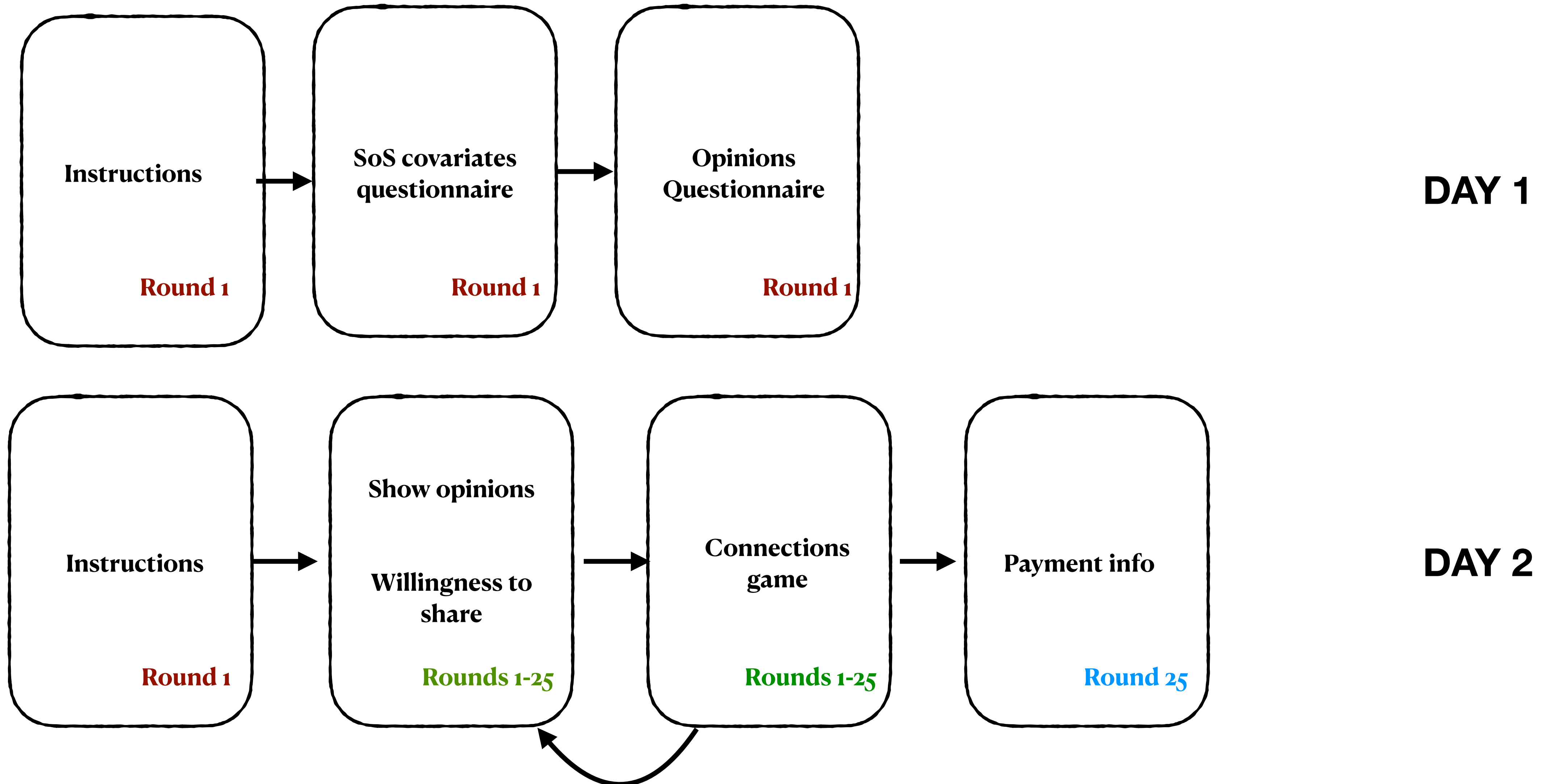
Connections game



25-30 rounds



Experiment Pipeline



Welcome to your feed, {INSERT PARTICIPANT NICKNAME}!

PARTICIPANT 21 DISCONNECT

AGREE: Statement R1
DISAGREE: Statement R2
RATHER NOT SHARE: Statement R3
I DO NOT KNOW: Statement R4

SHOW MORE

PARTICIPANT 6 DISCONNECT

I DO NOT KNOW: Statement R1
DISAGREE: Statement R2
RATHER NOT SHARE: Statement R3
I DO NOT KNOW: Statement R4
AGREE: Statement R5
AGREE: Statement R6
RATHER NOT SHARE: Statement R7
DISAGREE: Statement R8

SHOW LESS

PARTICIPANT 23 DISCONNECT

DISAGREE: Statement R1
DISAGREE: Statement R2
DISAGREE: Statement R3
AGREE: Statement R4
AGREE: Statement R5
DISAGREE: Statement R6
AGREE: Statement R7
DISAGREE: Statement R8

SHOW LESS

PARTICIPANT 1 DISCONNECT

I DO NOT KNOW: Statement R1
AGREE: Statement R2
AGREE: Statement R3
AGREE: Statement R4

SHOW MORE

PARTICIPANT 13 DISCONNECT

RATHER NOT SHARE: Statement R1
RATHER NOT SHARE: Statement R2
RATHER NOT SHARE: Statement R3
I DO NOT KNOW: Statement R4

SHOW MORE

PARTICIPANT 2 DISCONNECT

AGREE: Statement R1
DISAGREE: Statement R2
RATHER NOT SHARE: Statement R3
I DO NOT KNOW: Statement R4

SHOW MORE

PARTICIPANT 14 DISCONNECT

DISAGREE: Statement R1
DISAGREE: Statement R2
RATHER NOT SHARE: Statement R3
RATHER NOT SHARE: Statement R4

SHOW MORE

PARTICIPANT 2 CONNECT

Similarity index
This person withheld info

PARTICIPANT 25 UNDO REQUEST

Similarity index

PARTICIPANT 12 CONNECT

Similarity index

PARTICIPANT 3 ACCEPT

Similarity index

REJECT

PARTICIPANT 3 ACCEPT

Similarity index

REJECT

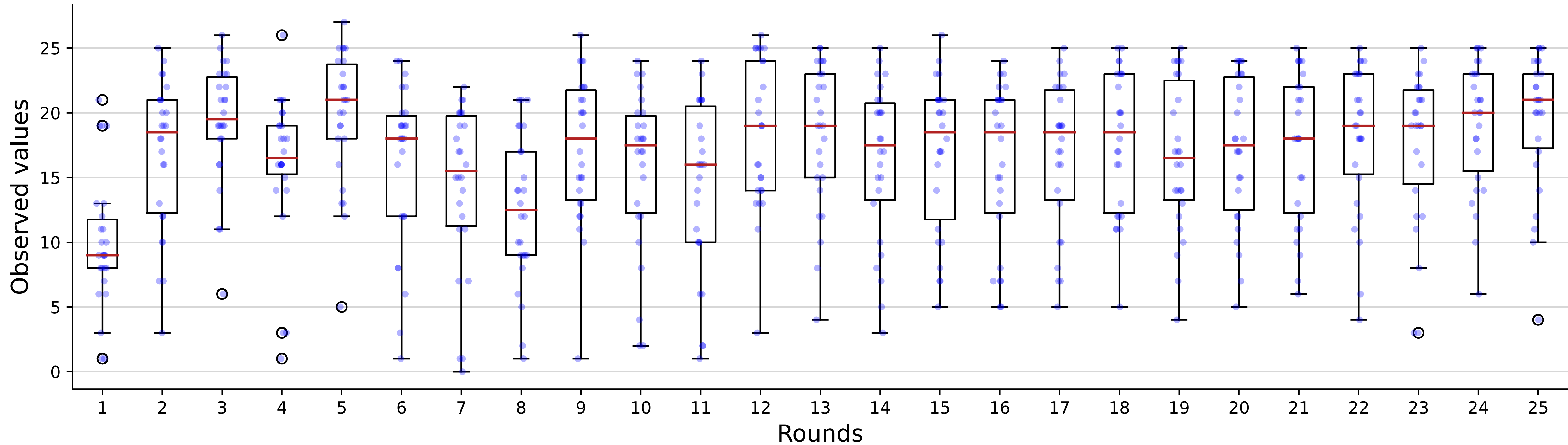
PARTICIPANT 23 UNDO REQUEST

Similarity index

Preliminary Results

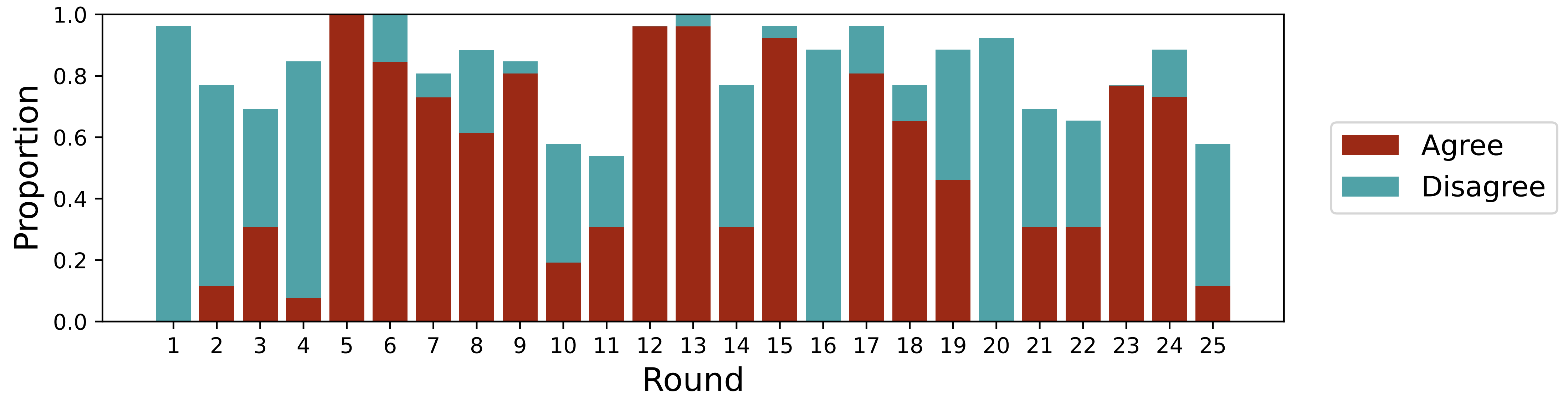
Network Statistics Pilot April 2023 with IBSEN subjects

Degree Distribution per Round

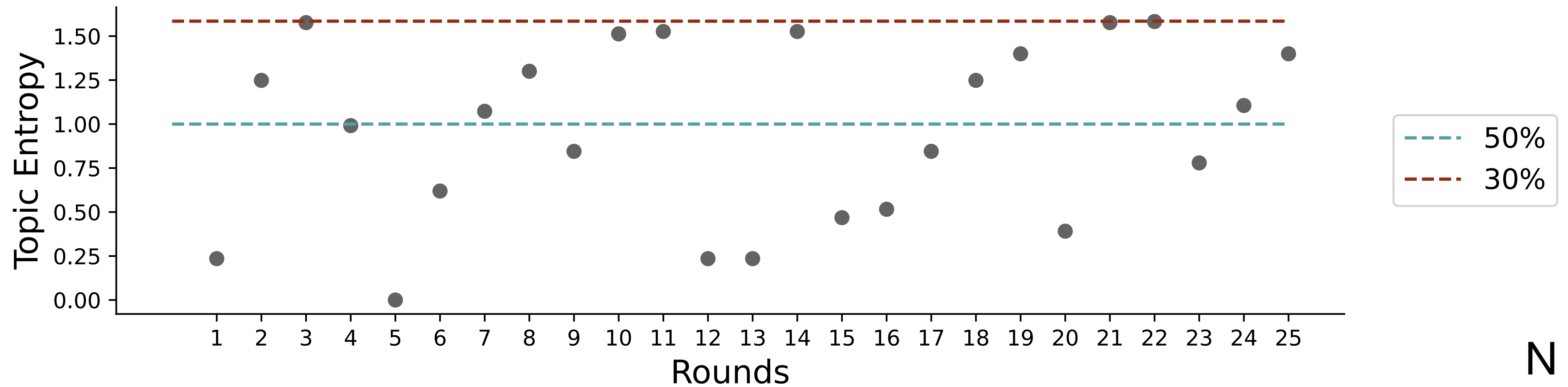


N = 26

Opinion distribution by round

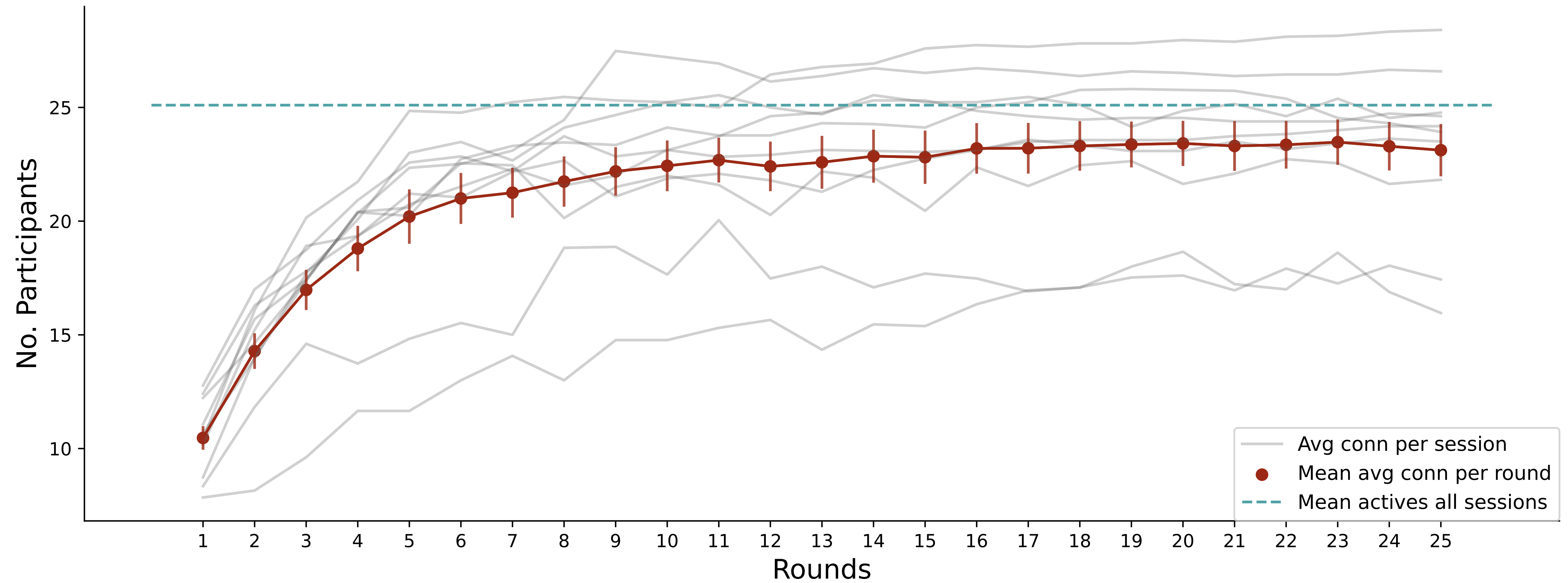


Topic entropy Day 1

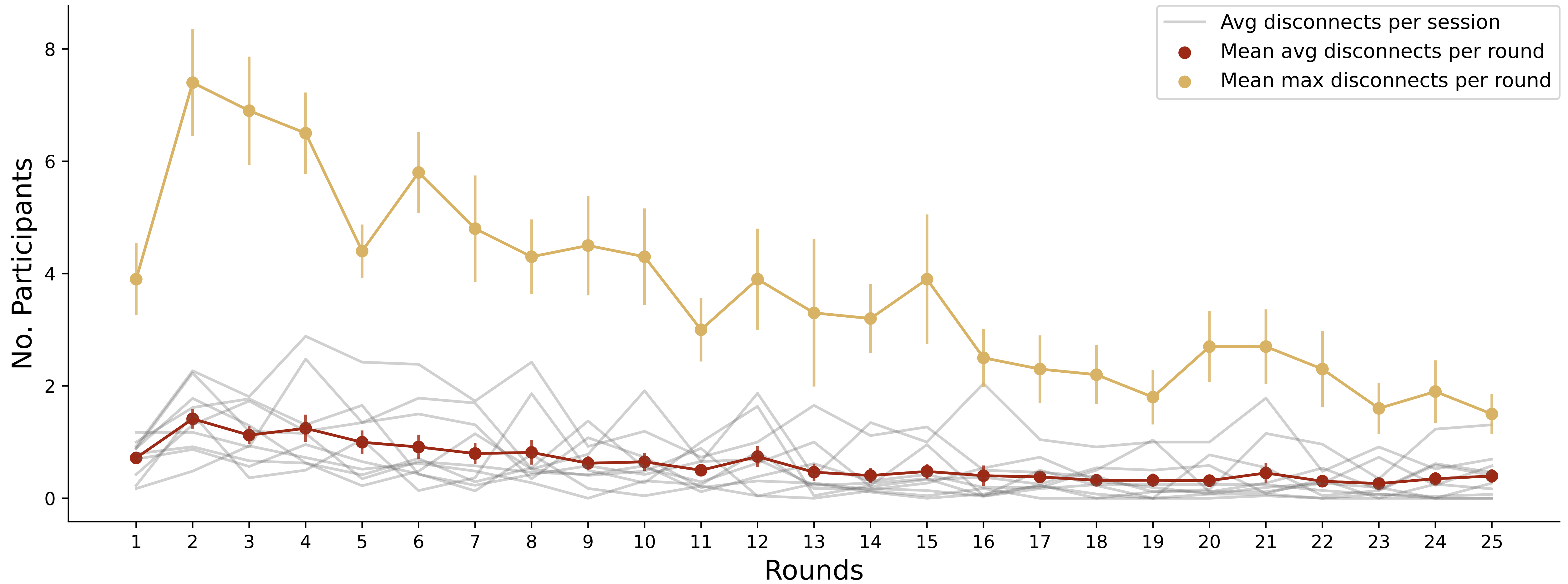


N = 26

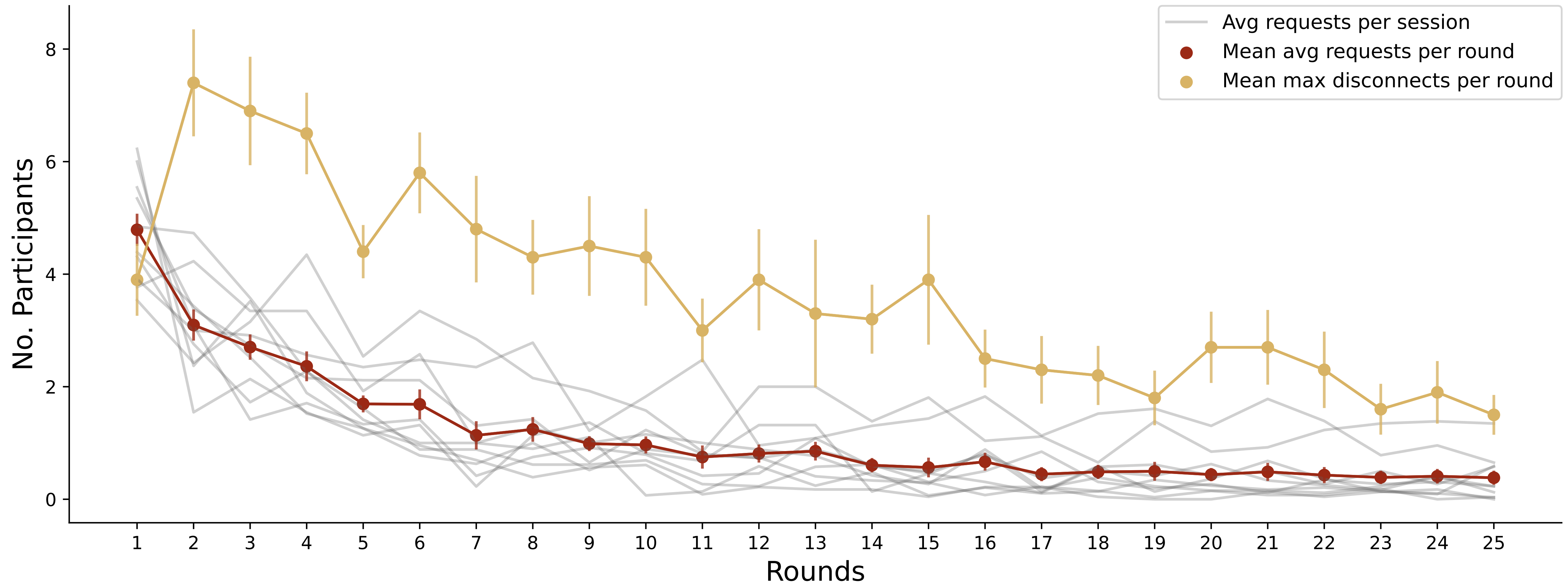
Average number of connections per session



Average number of disconnects from EGO per session



Average number of requests by EGO per session



Lessons learned from Pilot Study

“While it is a plausible assumption that people who express their **opinion** about an issue are sensitive to approval and disapproval, feedback on the **opinion** need not necessarily lead to its reconsideration. It might also affect one’s willingness of opinion expression: The more positive (negative) the feedback, the more (less) motivated one feels to publicly express **one’s opinion**.” (Gaisbauer et al., 2020)

Lesson 1:

1. Separate **measure of *true opinion*** from the interactive portion of the experiment

“While it is a plausible assumption that people who **express their opinion** about an issue are sensitive to approval and disapproval, feedback on the opinion need not necessarily lead to its reconsideration. It might also affect one’s **willingness of opinion expression**: The more positive (negative) the feedback, the more **(less) motivated one feels to publicly express one’s opinion.**”

Lesson 2: self-censorship/silence manifests in more than one way

1. Chance to review the opinion from previous day (***revision of opinion***): “Yesterday, you [agreed/disagreed] with the statement above. Does your response still accurately reflect your current stance on the topic? If not, would you like to revise your answer?”
2. Explicit measure of ***willingness to share***: “Considering your stated opinion, the following statement may be shared with your connections. Would you like to share your perspective with them?”

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Lesson 3: include important covariates in Day 0 survey

1. **Political interest:** How interested are you in keeping up with news and information about politics, public policy, controversial issues such as race, gender or immigration: (1 = very interested, 5 = Not at all interested)
2. **Commenting behavior:** During the past 12 months, have you ever posted a message on Social Media (LIST HERE) about politics, public policy, or a controversial social issues such as race, gender or immigration? (YES/NO)
3. **Attitude certainty:** I am very certain about my opinion on this topic (1 = do not agree, 5 = fully agree)
4. **Issue importance:** The issue is very important to me personally (1 = do not agree, 5 = fully agree)
5. **Extremity***
6. **Need to evaluate:** Thinking about yourself, please indicate whether or not the statement is characteristic of you or what you believe (1 = extremely uncharacteristic of me, 2 = somewhat uncharacteristic of me, 3 = uncertain, 4 = somewhat characteristic of me, 5 = extremely characteristic of me)

“While it is a plausible assumption that people who express their opinion about an issue are **sensitive to approval and disapproval**, feedback on the opinion need not necessarily lead to its reconsideration. It might also affect one’s willingness of opinion expression: The more positive (negative) the feedback, the more (less) motivated one feels to publicly express one’s opinion.”

Lesson 4: include measure of perception to society as primer on Interaction day

1. **Measure of *importance to society***: importance to society is a proxy for *perceived opinion landscape*. We expect individuals who perceive this topic to be important to others to review their opinions more carefully.

“While it is a plausible assumption that people who express their opinion about an issue are **sensitive to approval and disapproval**, feedback on the opinion need not necessarily lead to its reconsideration. It might also affect one’s willingness of opinion expression: The more positive (negative) the feedback, the more (less) motivated one feels to publicly express one’s opinion.”

Lesson 5: include incentive to make participants engage with others’ content

1. **Measure of *opinion landscape*:** participants have to provide the number of connections that agree with them. If estimate is correct, they receive a bonus payment.

“While it is a plausible assumption that people who express their opinion about an issue are sensitive to approval and disapproval, feedback on the opinion need not necessarily lead to its reconsideration. It might also affect one’s willingness of opinion expression: The more **positive (negative) the feedback**, the more (less) motivated one feels to publicly express one’s opinion.”

Operationalisation:

1. Positive feedback: Accepted requests and requests to connect.
2. Negative feedback: Denied requests and disconnects from others.
3. Undo request? Negative feedback? Or a mistake?

“While it is a plausible assumption that people who express their opinion about an issue are sensitive to approval and disapproval, feedback on the opinion need not necessarily lead to its reconsideration. It might also affect one’s willingness of opinion expression: The more **positive (negative) the feedback**, the more (less) motivated one feels to publicly express one’s opinion.”

Lesson 6:

1. Positive feedback: Both ends of a connection receive payment, making it desirable for everyone to (1) send as many connection requests as possible and, (2) accept all requests to connect.
2. Negative feedback: (1) if a request is denied, there’s no negative feedback for either party. However, if a connection is (2) destroyed then both parties are “punished”. Although, when a connection is destroyed, the “rejection” component of the incentive is captured for the recipient of the action, it isn’t clear why we’re punishing the source of the action as well.
3. But... we want to preserve the incentive structure so as to make sure that participants are ready to suffer a personal loss/cost because they cannot bare to connect to other with a different opinion to them

“While it is a plausible assumption that people who express their opinion about an issue are sensitive to approval and disapproval, feedback on the opinion need not necessarily lead to its reconsideration. It might also affect one’s willingness of opinion expression: The more **positive (negative) the feedback**, the more (less) motivated one feels to publicly express one’s opinion.”

Solution to Lesson 6:

1. Positive feedback: Leave as is, but charge a small amount for each connection.
2. Negative feedback: (1) when a request is denied, the participant who sent the request does not get “their money” back. (2) When a connection is destroyed, the source of the actions is punished by a negative amount.
3. Reward for correctly guessing how many connections agree with them. Again, in tokens and we will convert at the end.

“While it is a plausible assumption that people who express their opinion about an issue are sensitive to approval and disapproval, feedback on the opinion need not necessarily lead to its reconsideration. It might also affect one’s willingness of opinion expression: The more **positive (negative) the feedback**, the more (less) motivated one feels to publicly express one’s opinion.”

Solution to Lesson 6 continued...

1. Pay **100 tokens** for a successful connection to both parties, with an automatic initial budget of 25 tokens (k=5 random connections).
2. Charge 1 **token** the source for sending a request to connect (if they do nothing else, participants can send 20 requests per round, assuming they play for 25 rounds)—Negative feedback: reject button
3. When a connection is destroyed, we subtract **1 token from the target of the action**—Negative feedback: disconnect button
4. Payments are calculated by round and accumulated to the end. Even if they do nothing, they will receive a flat payment equivalent to 25 tokens x rounds played