

Do humans have an  
internal drive to share  
what is on our minds?  
Testing  
*Mitteilungsbedürfnis*

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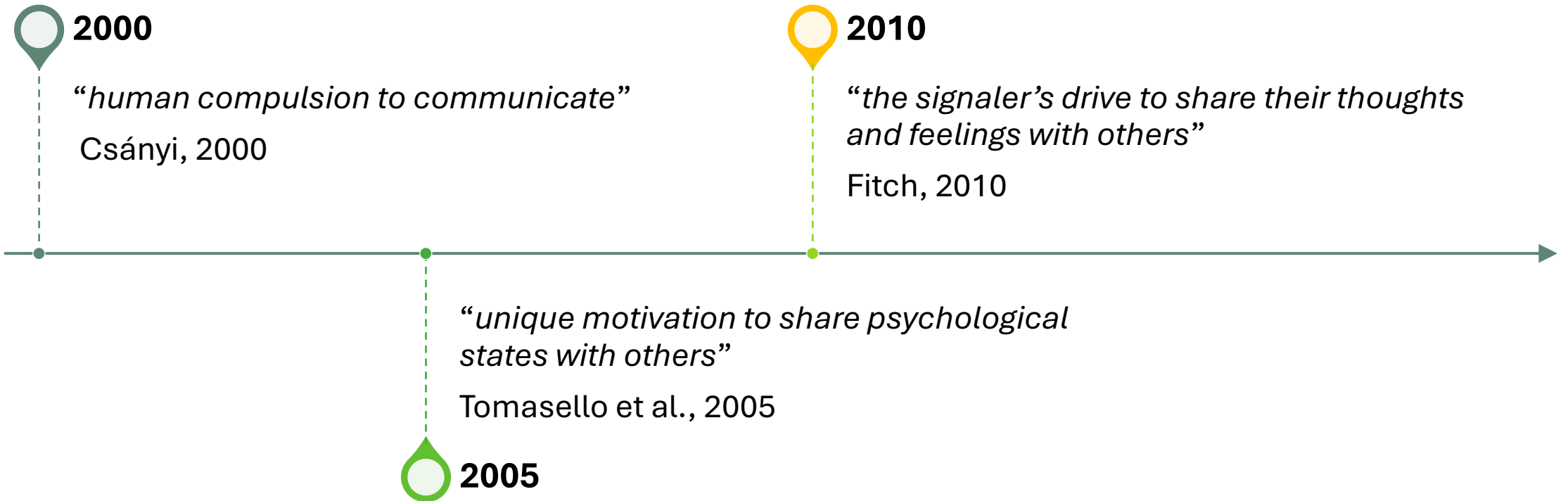
# Raise your hand if...

You have shared your thoughts and feelings today

You have ever felt like *you needed* to tell someone something

You have ever wondered “why did I share that?”







## Fitch, 2010

*“the signaler’s drive to share their thoughts and feelings with others”*

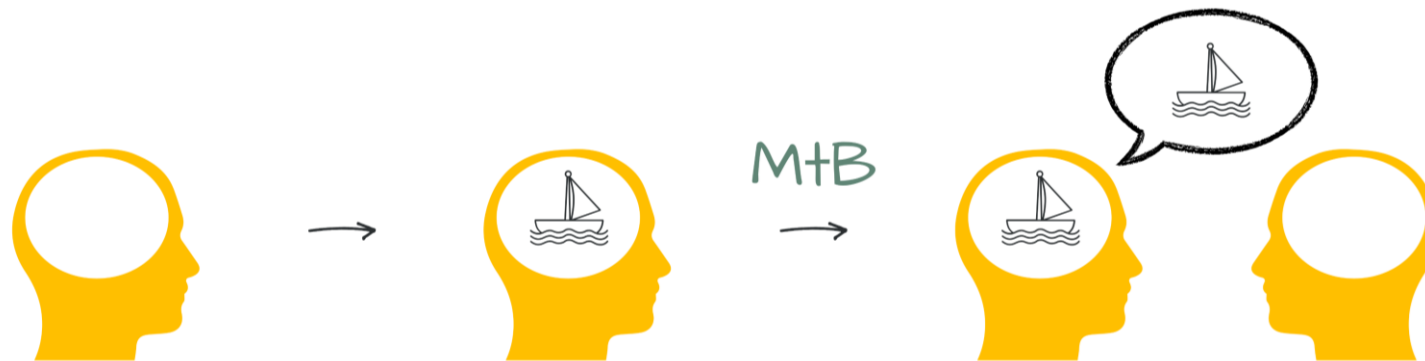


## **Mitteilungsbedürfnis (MtB)**

German for *“the need to communicate/express oneself/share one’s thoughts and feelings”*

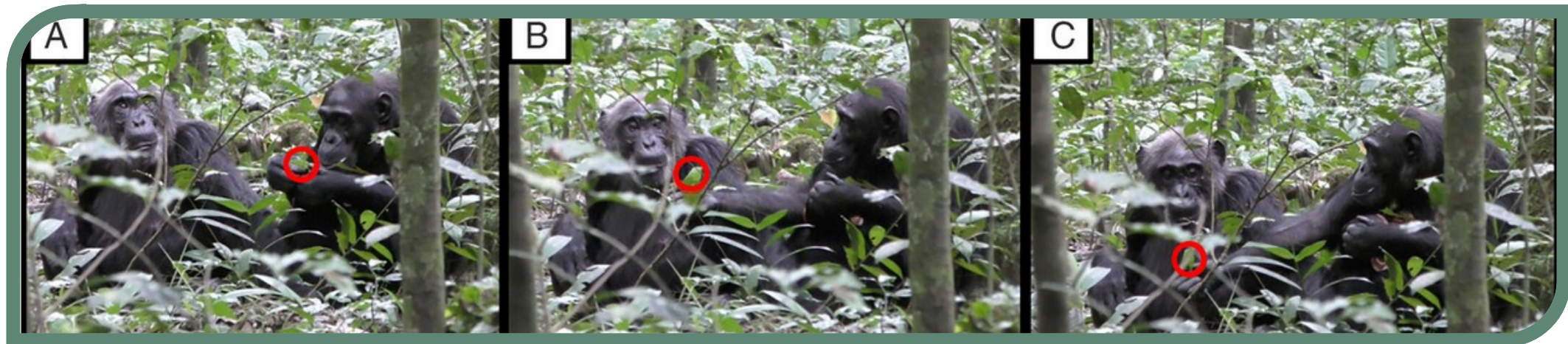
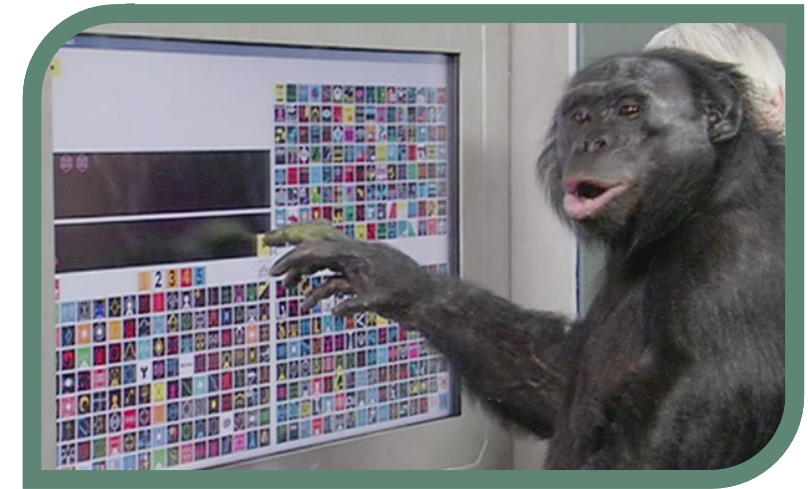
## Our definition

intrinsic drive to share what is on our minds with others, which is *independent of external motivations*



# Non-human apes

- Next to no recorded incidents of declarative sharing in the wild (exception: Wilke et al., 2022)
- Utterances of language-trained apes with caregivers overwhelmingly imperative (e.g. 96% of Kanzi's utterances; Greenfield & Savage-Rumbaugh, 1990)





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# Human children



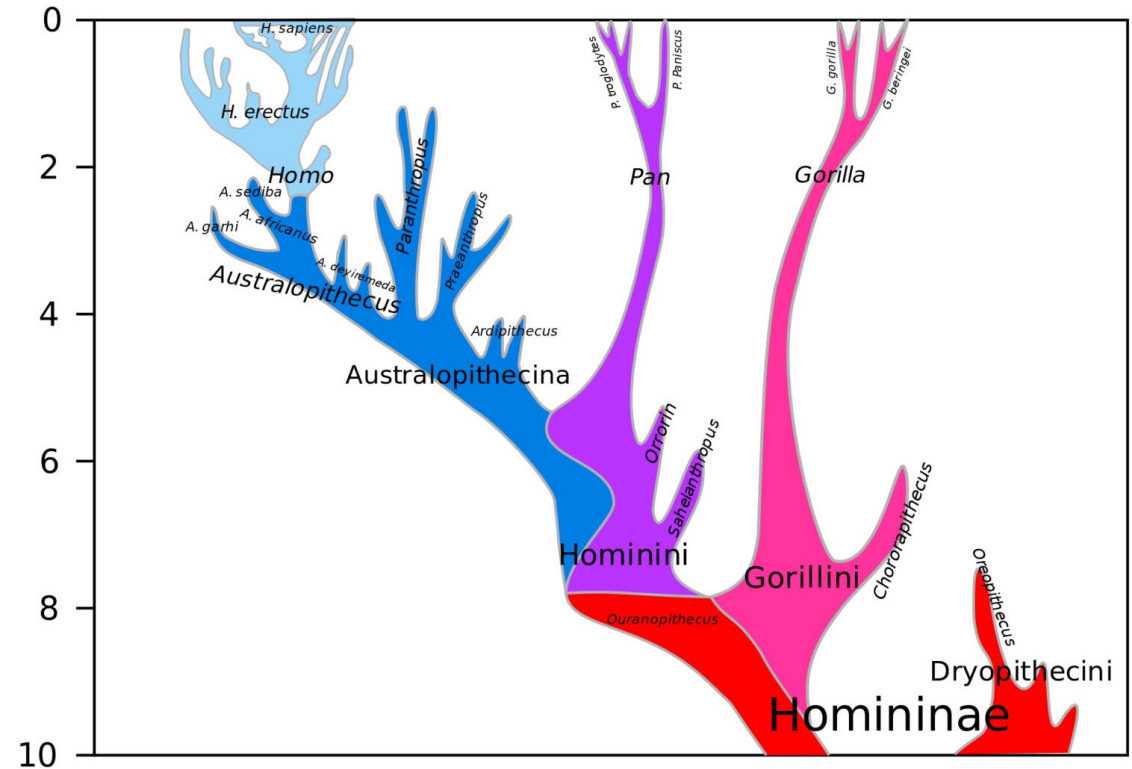
- declarative communication arises very early, potentially with proto-conversations (from few months after birth)
- more obviously with pointing and hold-out gestures from around 6 months
- allows for collaborative engagement from 12 months onwards (Tomasello et al. 2005)

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# Evolutionary explanations

- Socioecological explanation for cognitive and behavioural differences in human and other apes (Csányi, 2000; Dor 2023; Tomasello et al. 2012)
  - At some point after split of the *Pan* and *Homo* lines (~6 mya), being able to collaborate with others became obligatory for archaic humans
  - Strong social selection for individuals with cooperative skills and motivations



# Existing empirical evidence

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*Behavioural/Neuroimaging evidence* (Tamir & Mitchell, 2012; Tamir et al., 2015)


- Participants chose to **forgo money** to answer questions about themselves or inform others
- Brain regions previously shown to be associated with **reward** activated when participants shared
- Participants shared information that was **random** and did **not provide an obvious benefit** to them or the receiver

# Existing empirical evidence

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*Role of partner choice in information sharing* (Jimenez et al. 2025 [preprint])

- Series of experiments to test if knowledge holders would share with those who had high reputations for sharing and withhold information from those who had low reputation
- Participants **shared their knowledge quite indiscriminately**, even when they could have obtained higher pay-offs by being selfish



# Existing empirical evidence – limitations



## External motivations

- Jimenez et al. 2025 – clear motivation to help others
- Tamir et al. studies – strong social component

Our study



# Paradigm



## Experiment task

On the next screen, you will see an image. Please have a look at it - you can take as much time as you need. You will then be asked to name something you have discovered in the image.

Continue

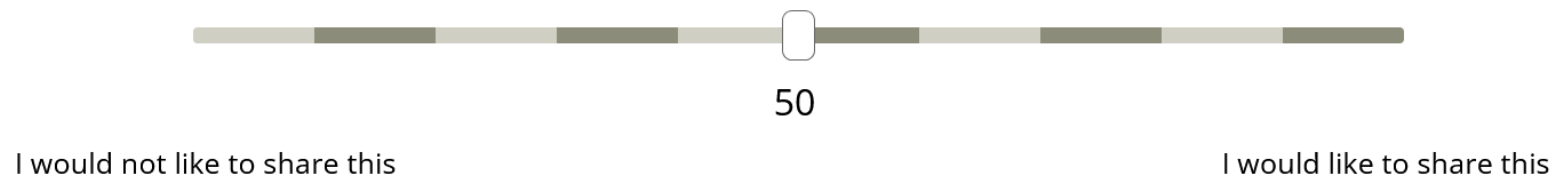




Please name one thing you have discovered:

Continue

Would you like to share your discovery of "blue flower" with someone else?



Continue

We are interested in how and why people share information. Could you tell us why you would like to share this?

Continue

## Experiment task

You will now see the image again, and we will again ask you to name something you have discovered in the image. You can choose the same item or something different.

Continue

# Participants

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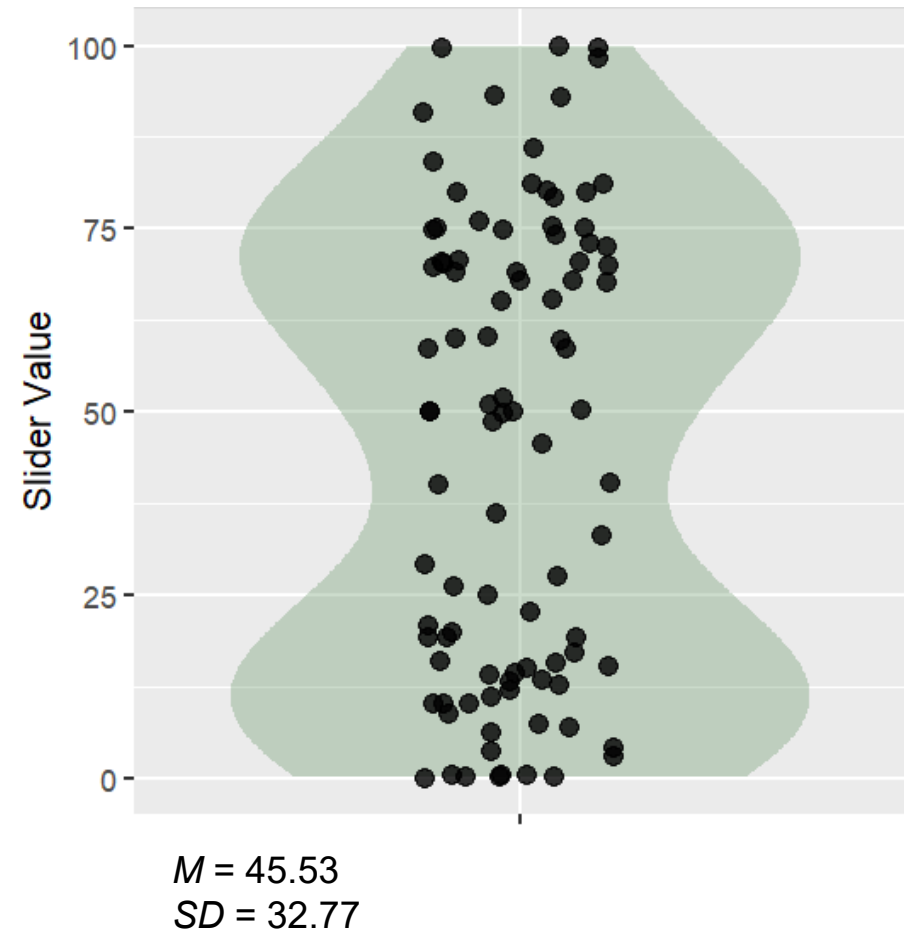
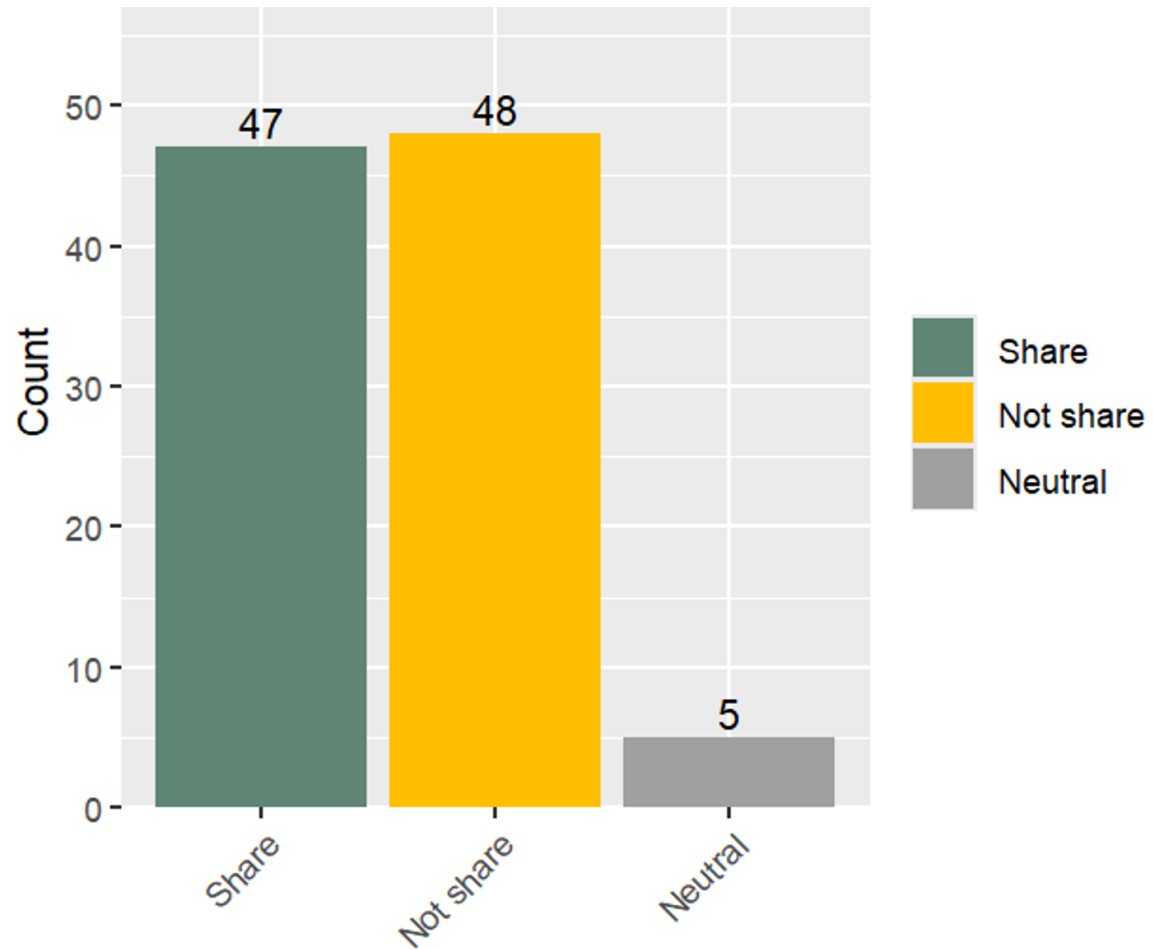
- 50 participants on Prolific from US, UK, and EU (self-reported)

# Results

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Will participants share information even without a clear external motivation?

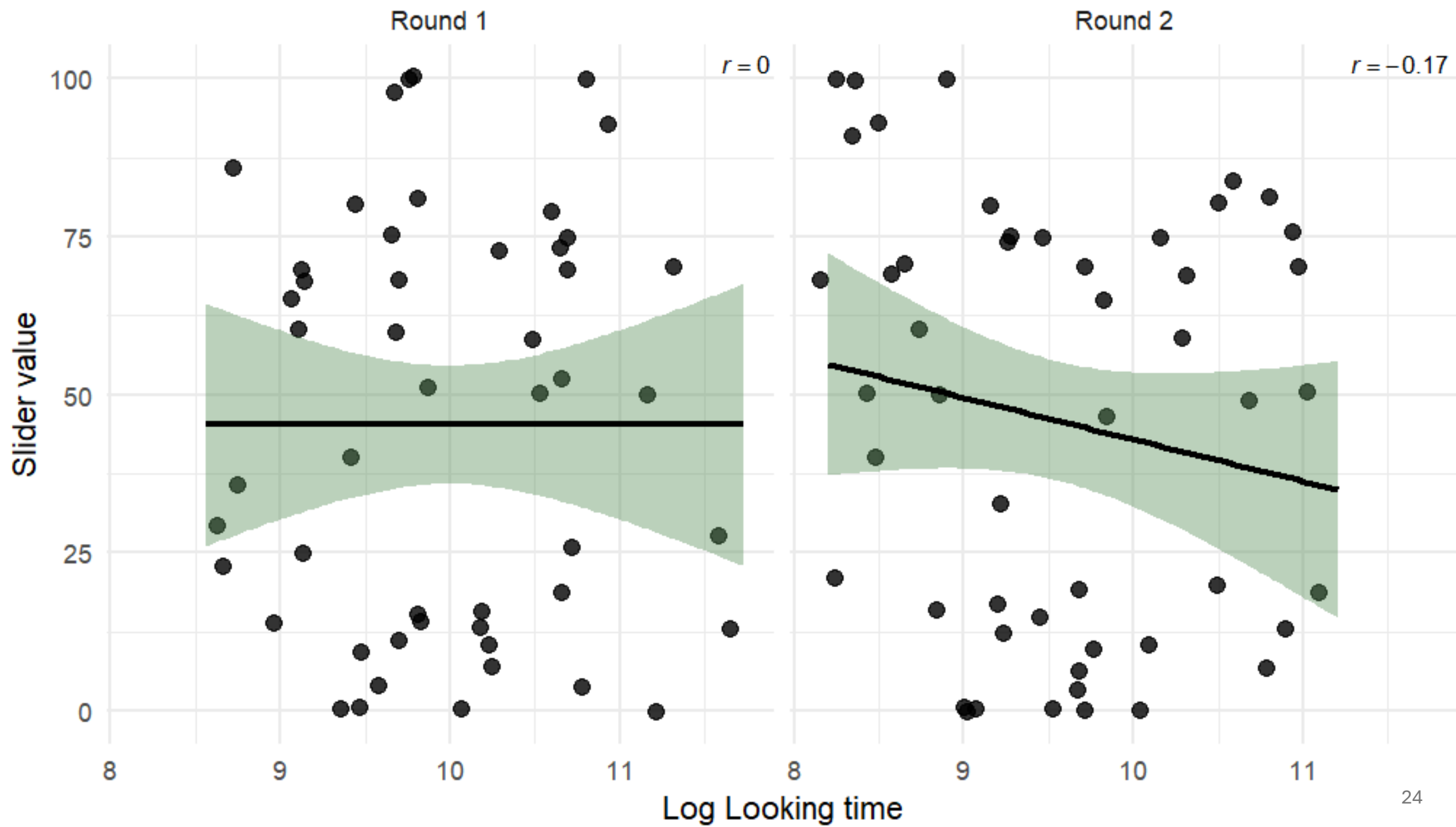
# Results





# Collection effort

- Collecting information reveals what we pay attention to
- Sharing information that is perceived as valuable might advertise sharer as valuable themselves (Dessalles, 2010)
- Prediction: Longer looking time = higher slider value

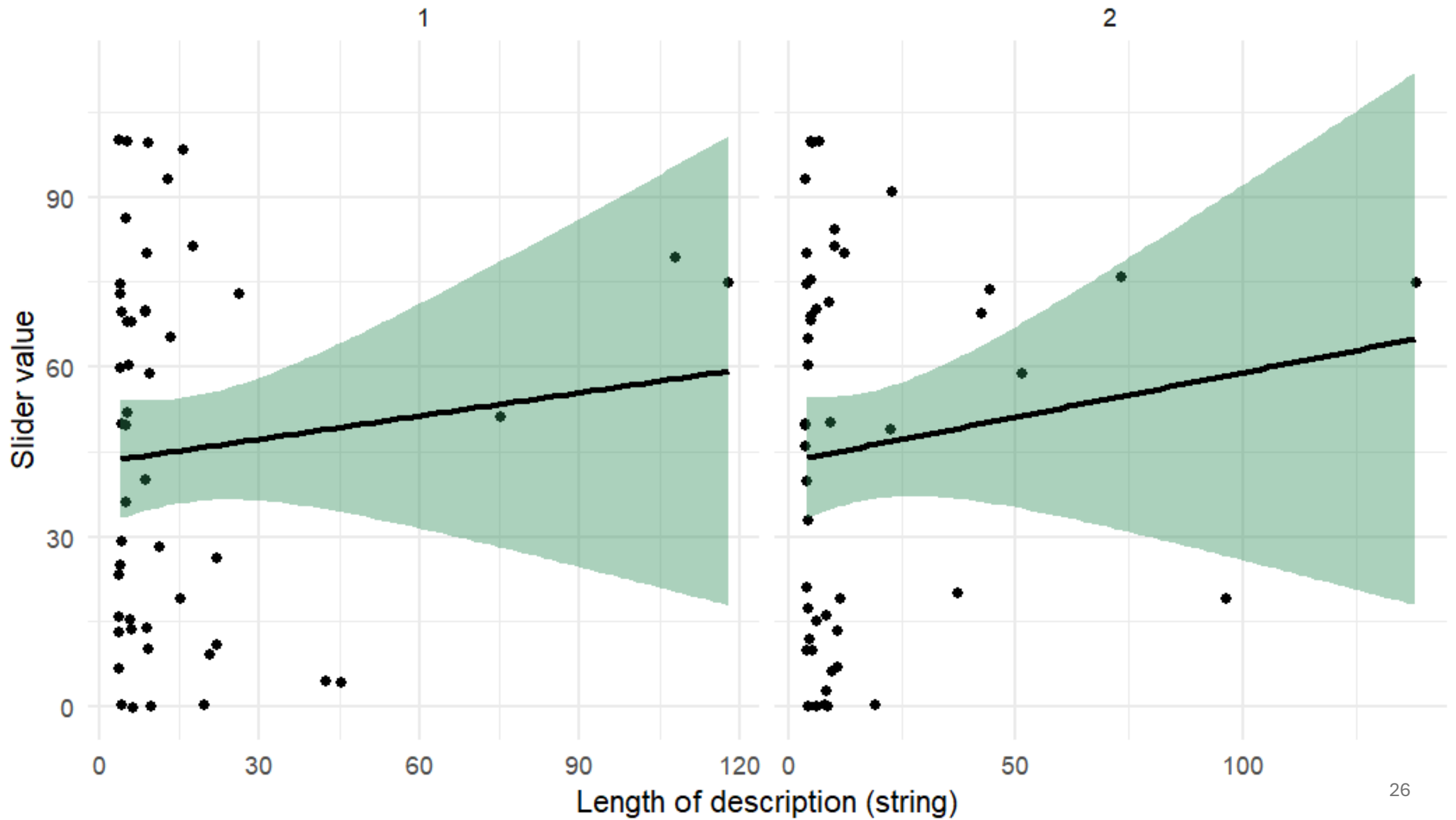


# Length of description and sharing choice

Toad

Two birds on top standing on branches that no artist would ever put them on because the branches seem way too thin to support those birds

# Slider values and length of description by round



# Remove information collection?

- Follow up experiment (50 participants on Prolific from US, UK, and EU (self-reported))
- Paradigm identical except for information collection
- Prediction: Participants will share less

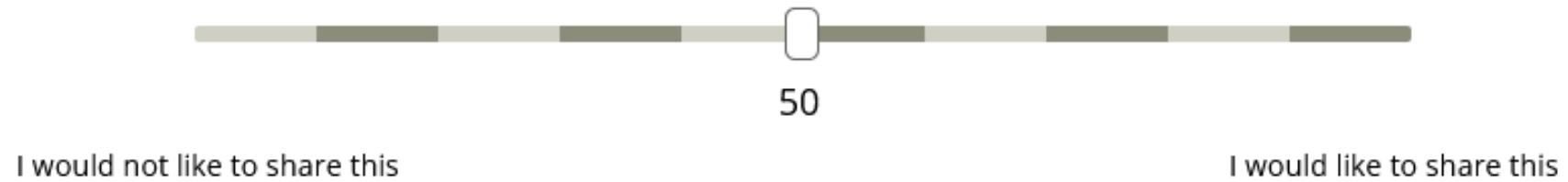


Here is one thing from the image:

**frog**

Continue

Would you like to share that there is a **frog** in the image with someone else?



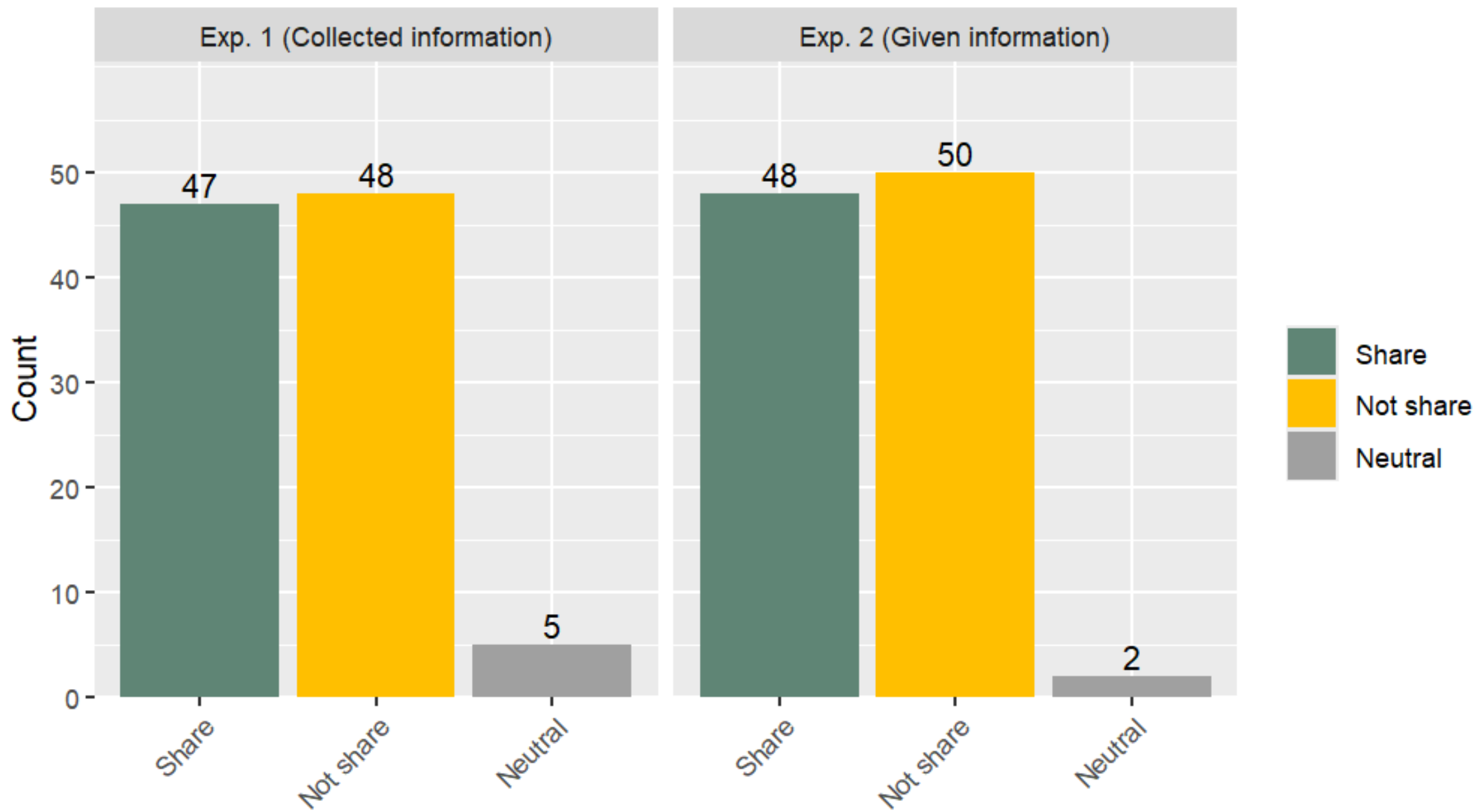
Continue

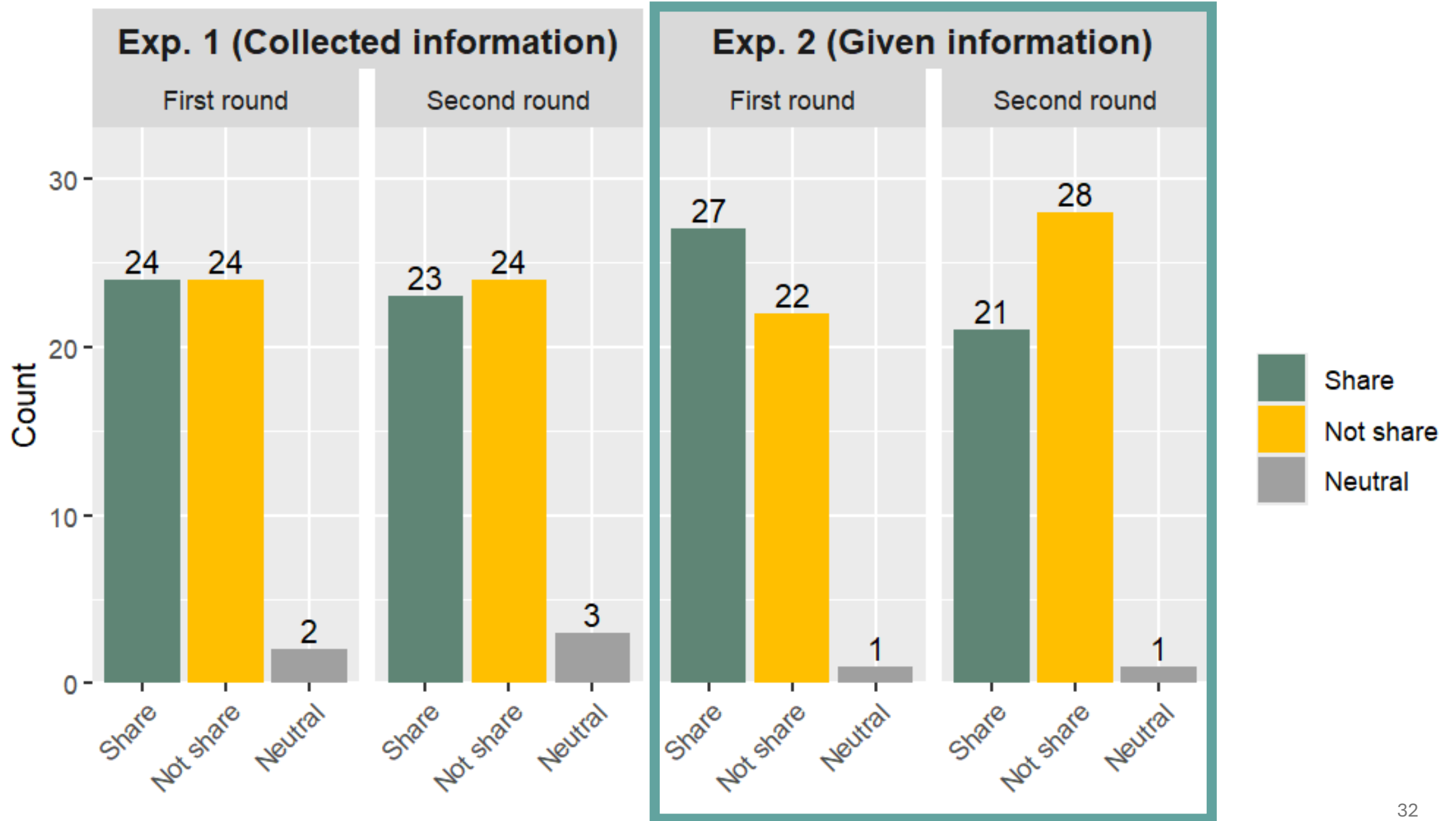
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# Results

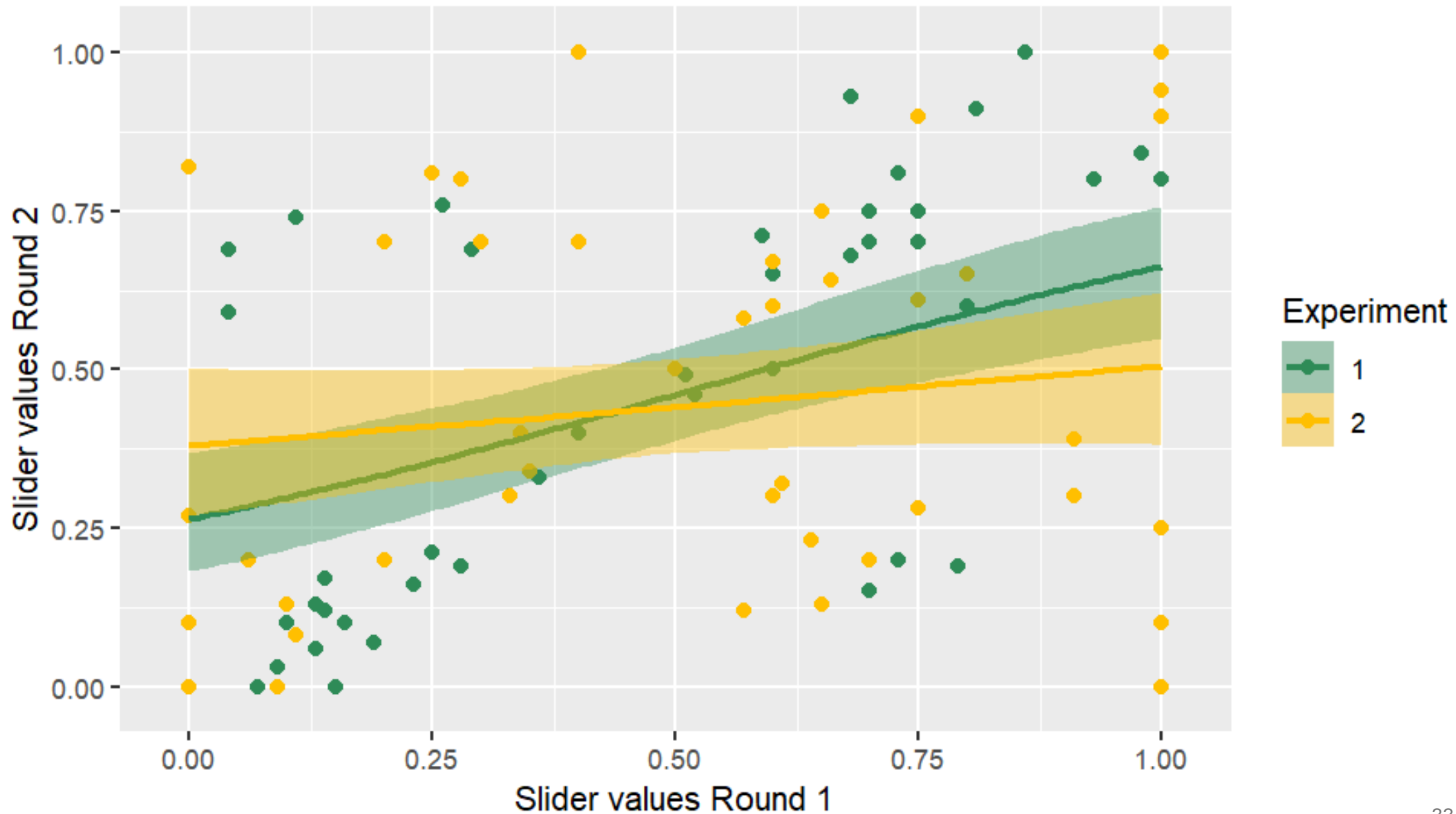
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Will collected  
information be  
shared more readily?





Slider value consistency by round (Model output)



# Why did participants choose to share/not to share?

not obvious  
too obvious  
certainty of knowledge  
**help others**  
personal values  
not interesting/special  
interesting/unusual/unexpected  
share something positive  
relevant no one to share with  
**irrelevant**  
encourage searching

1

like object  
**dislike object**  
impression management not useful  
share something positive  
personal values mtb help others  
humour  
not interesting/special  
something to talk about dislike image  
**accuracy of information**  
interesting/unusual/unexpected  
relevant too obvious  
**irrelevant**  
not obvious

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# Summary & Discussion

Paradigm works

No clear support that collection effort influences sharing choice

Mixed picture for collected vs given information



## Next steps

- Test for stable individual variation/personality correlations
- Test paradigm with non-WEIRD populations
- Introduction of sharing cost

Thank you :)

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