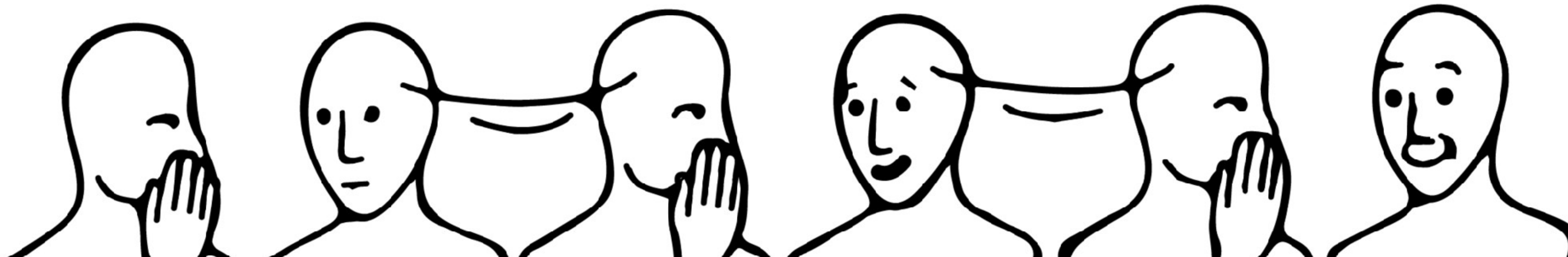


# From storytelling to Facebook

Content biases are stronger when  
retelling a story than when sharing it

Alberto Acerbi

- Cultural evolution researchers use *transmission chain experiments* to investigate which content is more likely to survive when transmitted from one individual to another.
- Examples of successful content:
  - Negative information (e.g. Bebbington et al., 2017)
  - Threat-related information (e.g. Blaine & Boyer, 2018)
  - Information eliciting disgust (e.g. Eriksson & Coultas, 2014)

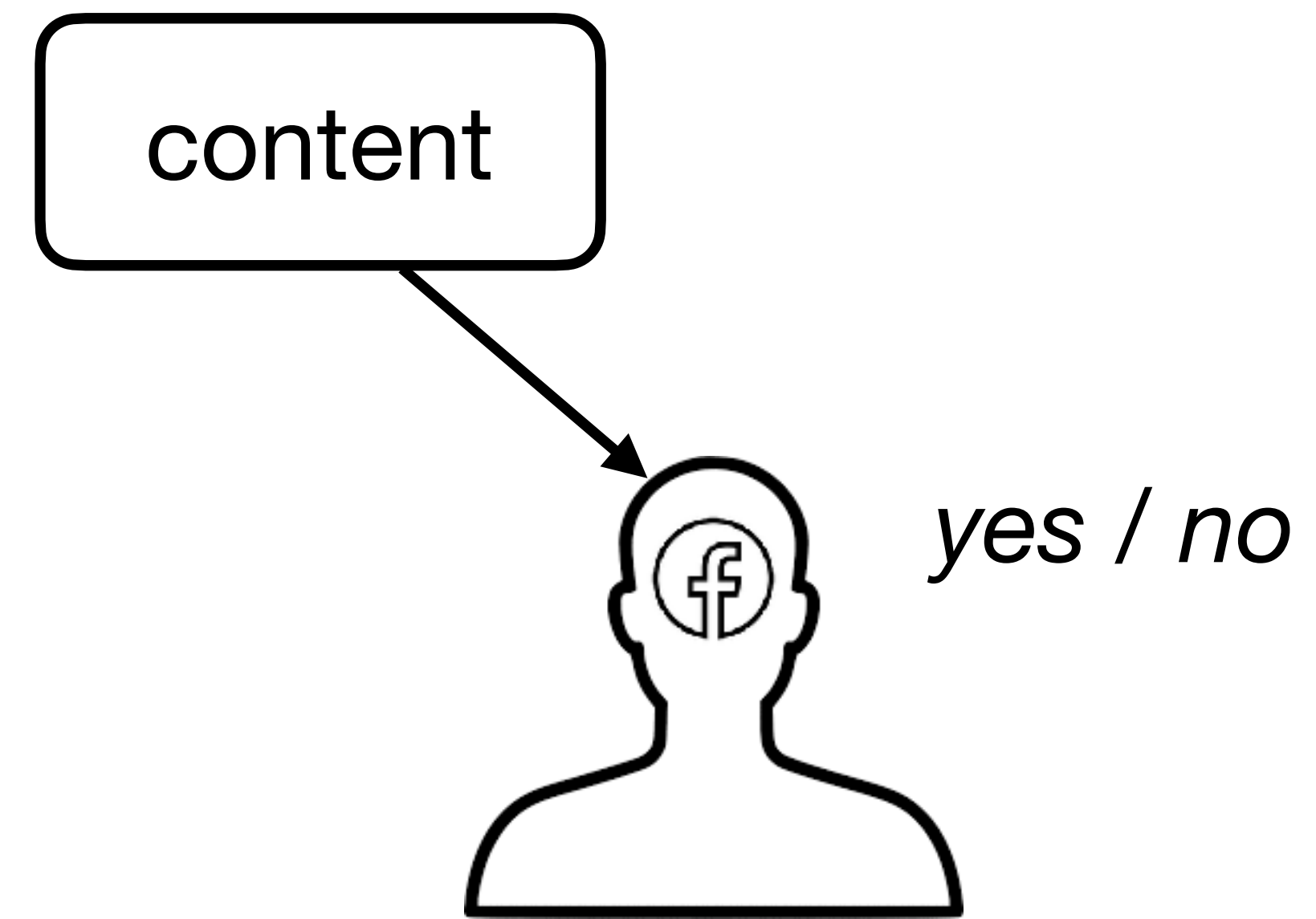
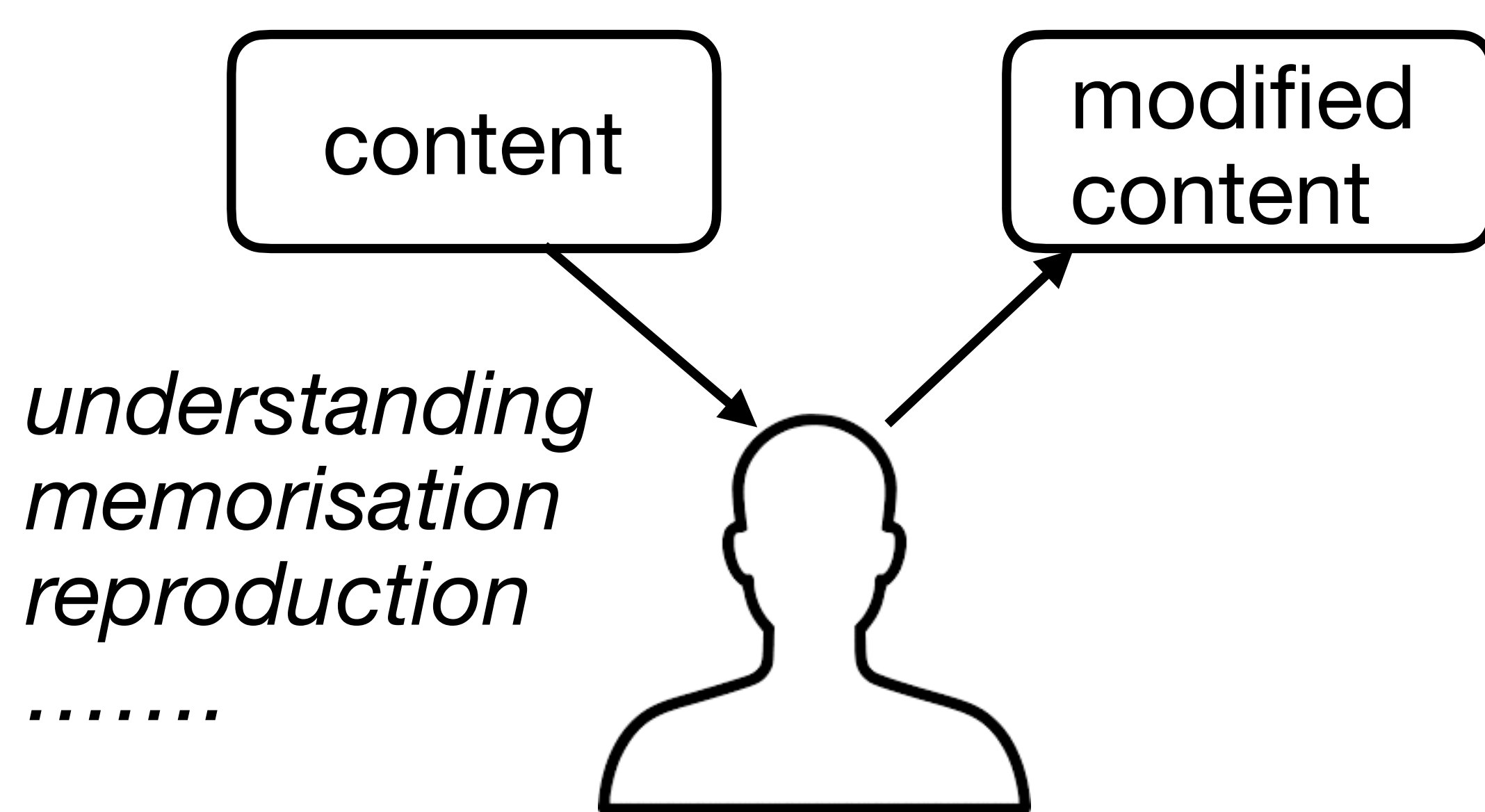








- But: participants in transmission chains need to *understand*, *memorise*, and *reproduce* the content, while an online “share” simply involves the willingness to share it.
- Does this change the content that is more likely to be successful?



- Two fully pre-registered online experiments
  - Experiment 1 (N=540) tests whether negative content, threat-related information, and information eliciting disgust are better transmitted than their neutral counterpart in a traditional transmission chain setup.
  - Experiment 2 (N=600) uses the exact same material, but participants are asked whether they would share or not the content in two conditions: in a large anonymous social network, or with their friends, in their favourite social network.

Pre-registration

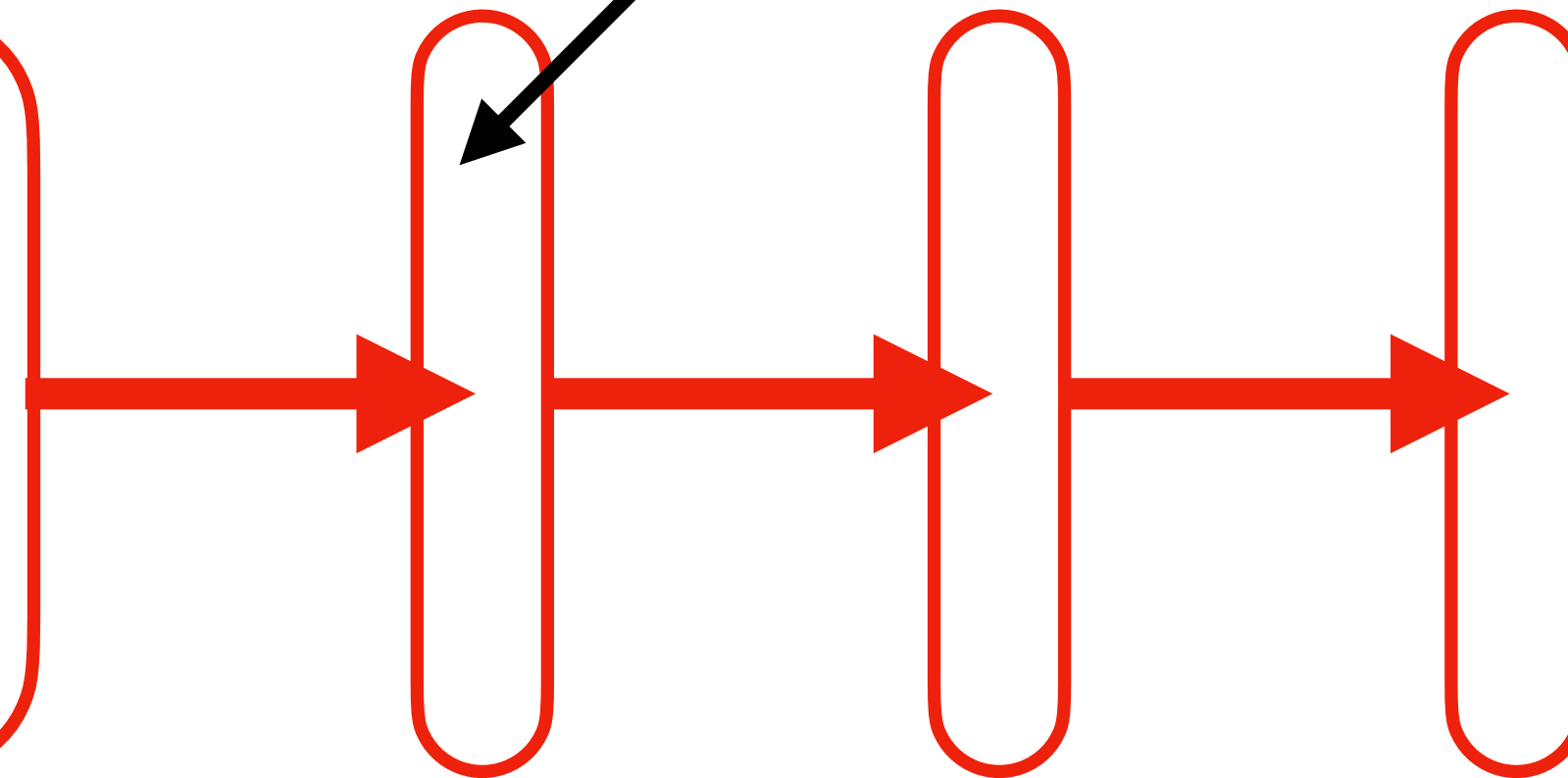
<https://osf.io/wf7pd>



## Attractive content

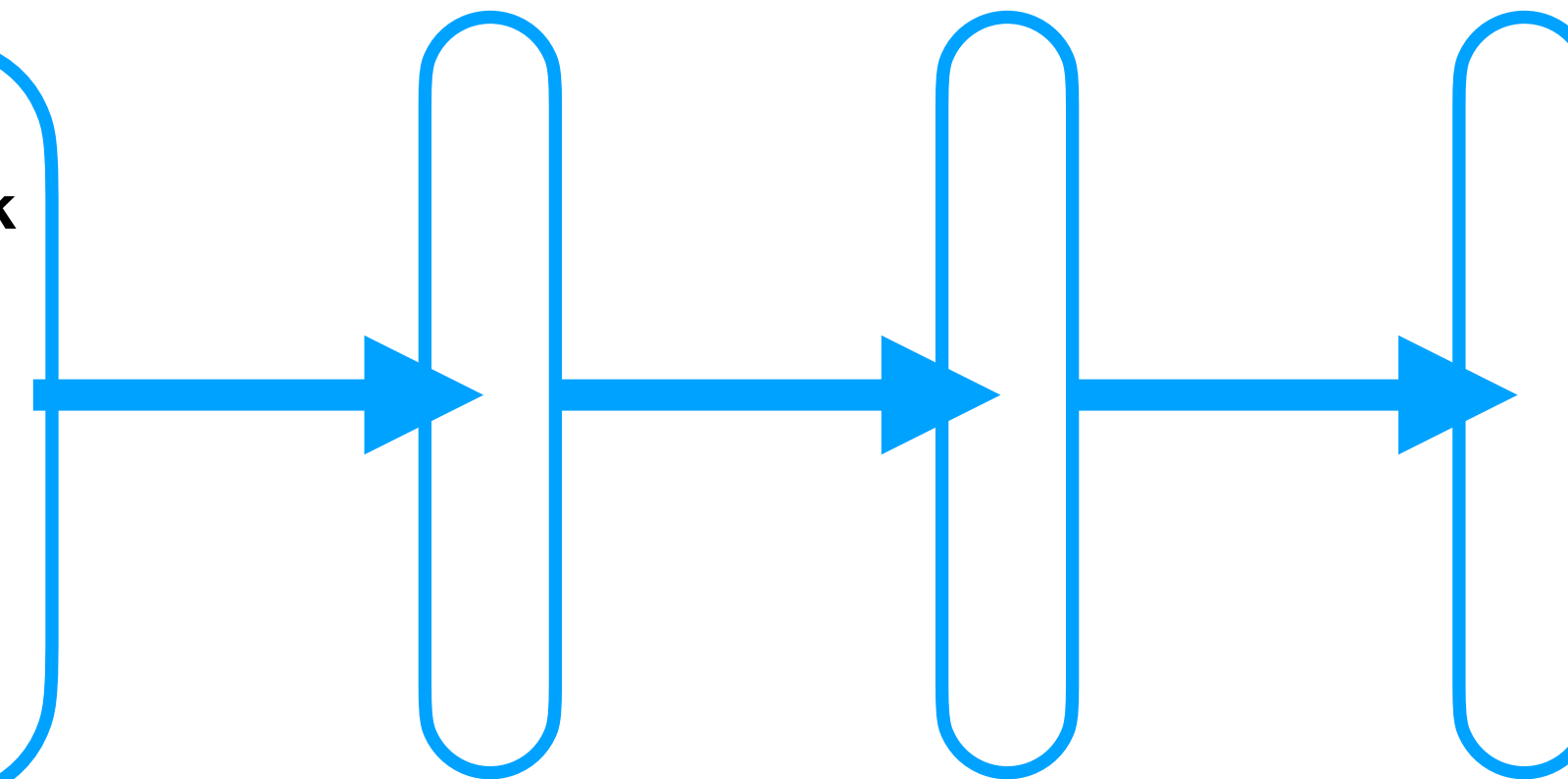
30 participants

A major outbreak of salmonella has been reported in the US. The outbreak is the largest in the last 25 years. The outbreak had its origin in Saint Rika's hospital. More than 500 cases were identified in the hospital only. **The likely source of the outbreak is contact with contaminated feces in the hospital's toilets.**

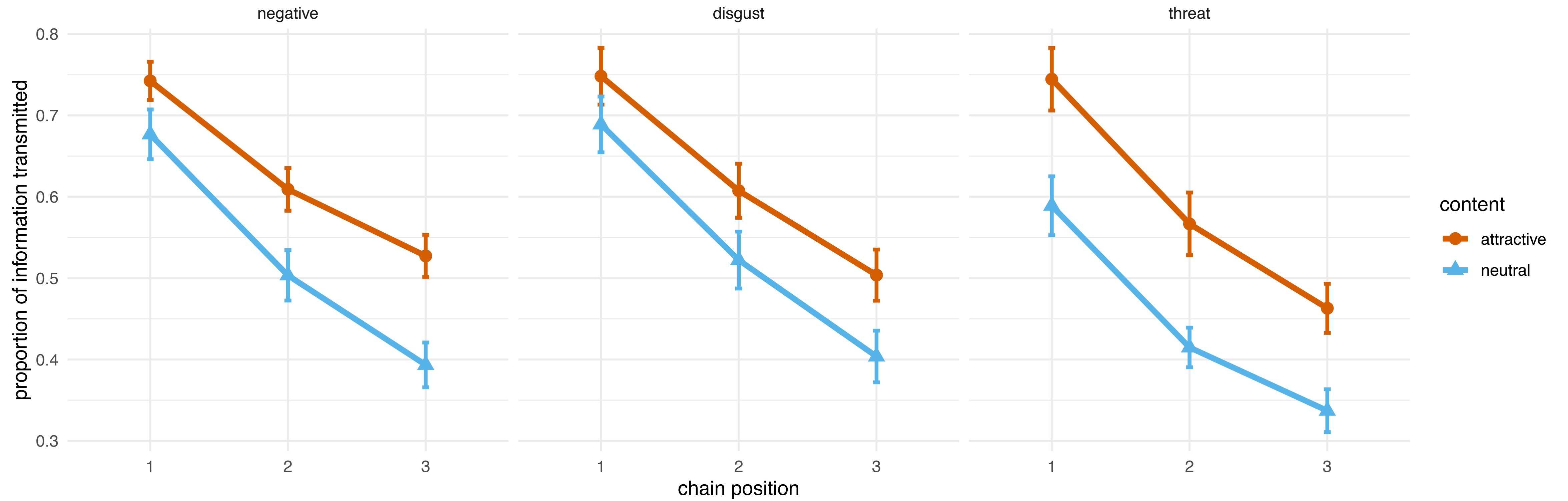


## Neutral content

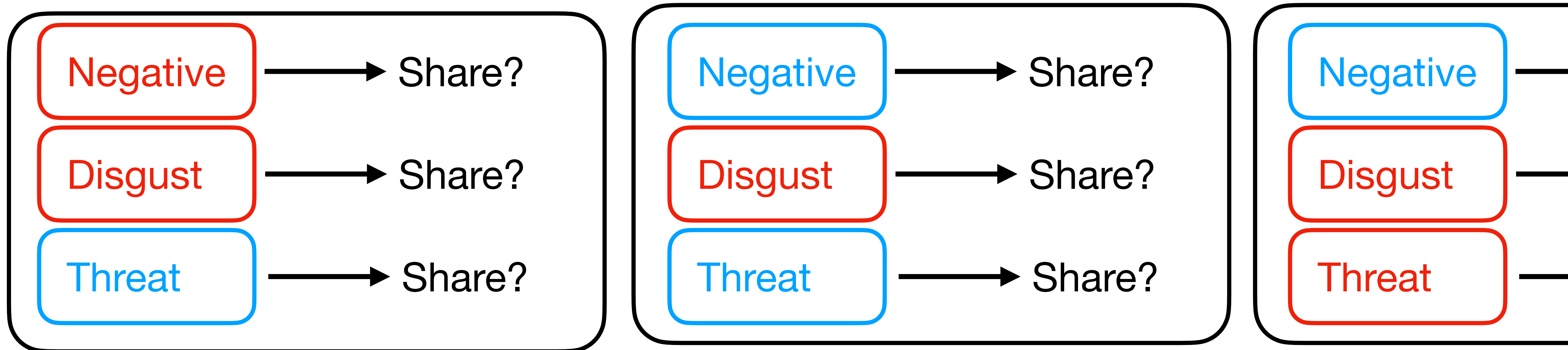
A major outbreak of chickenpox has been reported in the US. The outbreak is the largest in the last 25 years. The outbreak had its origin in Saint Rika's hospital. More than 500 cases were identified in the hospital only. **Chickenpox can be transmitted when a person touches another one.**



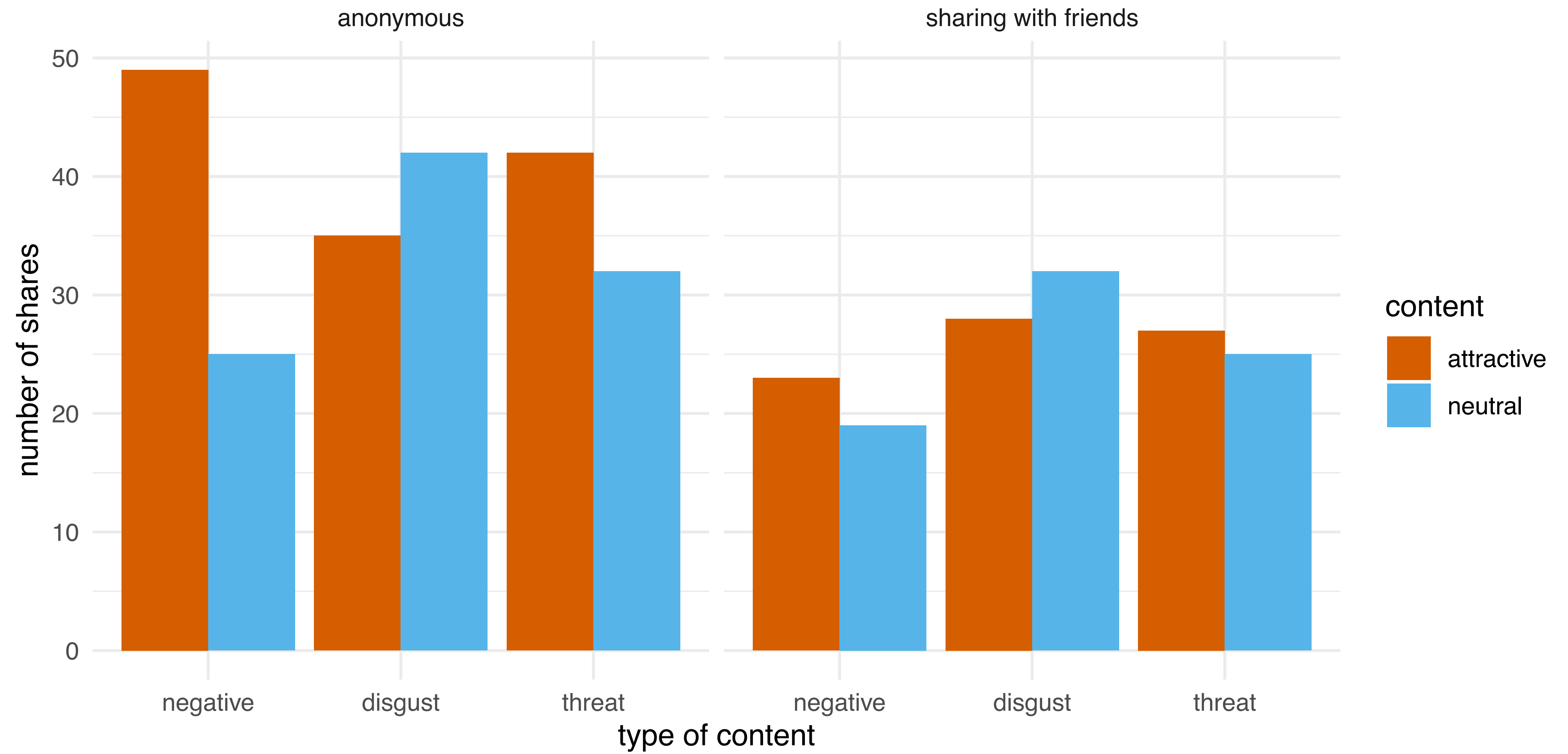
- 3 conditions (negative, disgust, threat)
- 2 types of content for each condition (attractive VS neutral)
- H: More information overall is transmitted, in each condition, for attractive content

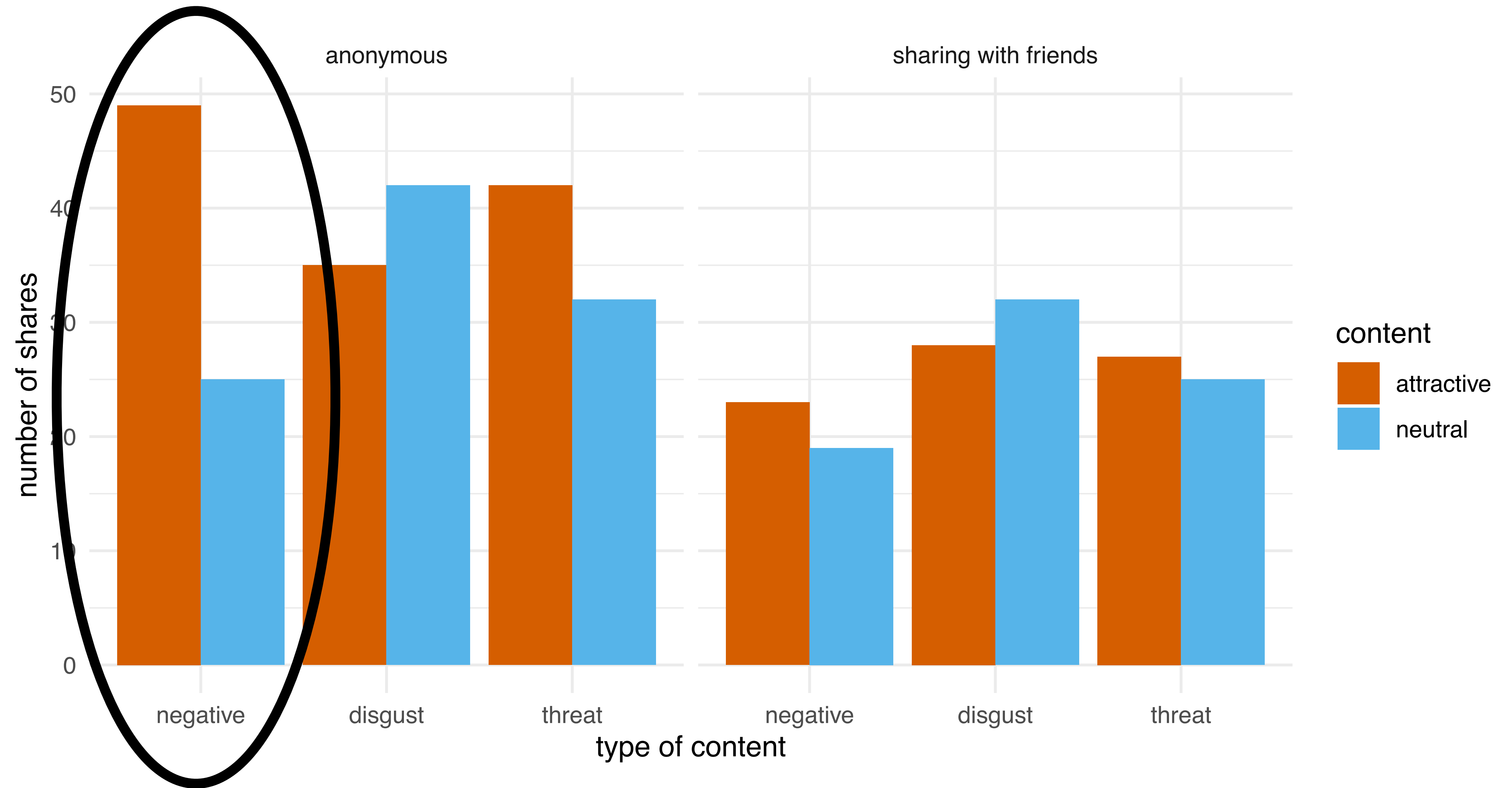


- Three contents presented to each participant (negative / disgust / threat), each of them neutral or attractive.
- Condition 1: participants are asked whether they would share each of the content *in a large anonymous social network*
- Condition 2: participants are asked whether they would share each of the content *with their friends, in their favourite social network*









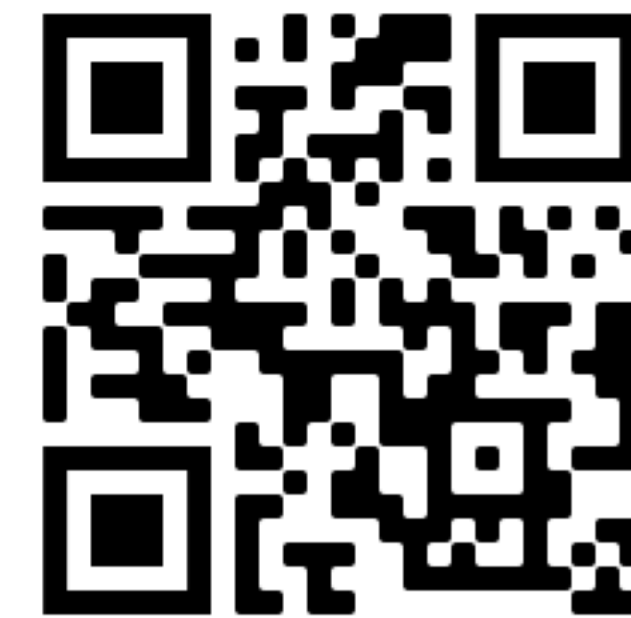


- Experiment 1 confirms that in transmission chains, attractive content is better transmitted than its neutral counterpart, for all three types of content.
- Experiment 2 shows that in only one condition (negative content *and* anonymous sharing) the attractive content is advantaged.
- Results suggest that (i) negative content may be stronger than other biases (ii) anonymous sharing is different from non-anonymous sharing, and (iii) memory, reproduction, etc. have an influence on content biases.
- More counterintuitively, content biases could be *less strong* in online sharing than in oral transmission.

# Thank you!

data / code

<https://osf.io/5yh4u/>



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