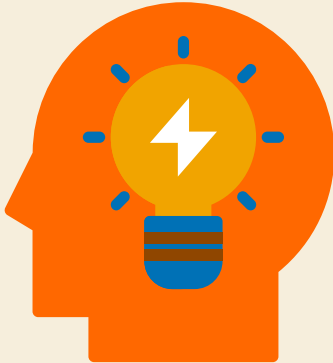


The impact of emotional valence on memory

SooYeon Choi | SIPPS 2022
Mentors: Camille Gasser, John Thorp,
Wangjin Yu



Introduction



Literature Review

- According to Clewett and Murty (2019), valence and emotion affect memory.
 - Positive - memory broadening, better associative memory → more likely to remember in order
 - Negative - memory narrowing, better detail memory
- Memories for neutral information can be preserved by a future emotional event (Dunsmoor et al., 2015).



Does the valence of
the Story Ending
(Negative vs. Positive)
Affect the Way People
Remember a Story?

Experiment Design

4 short stories with valenced endings

- Positive = goal achieved
- Negative = goal failed

After 6 hours



Memory tests

- **Free recall**
- Detail memory test

Sophie had arrived on the west coast last year with a new job at a publishing company...



Positive ending

With a nervous swallow, Sophie raised the phone to her cheek and listened. "You mean I got it?" she almost yelped, tripping over an uneven chunk of sidewalk in the process...

...

Negative ending

With a nervous swallow, Sophie raised the phone to her cheek and listened. "Oh, I see," she swallowed, tripping over an uneven chunk of sidewalk in the process...

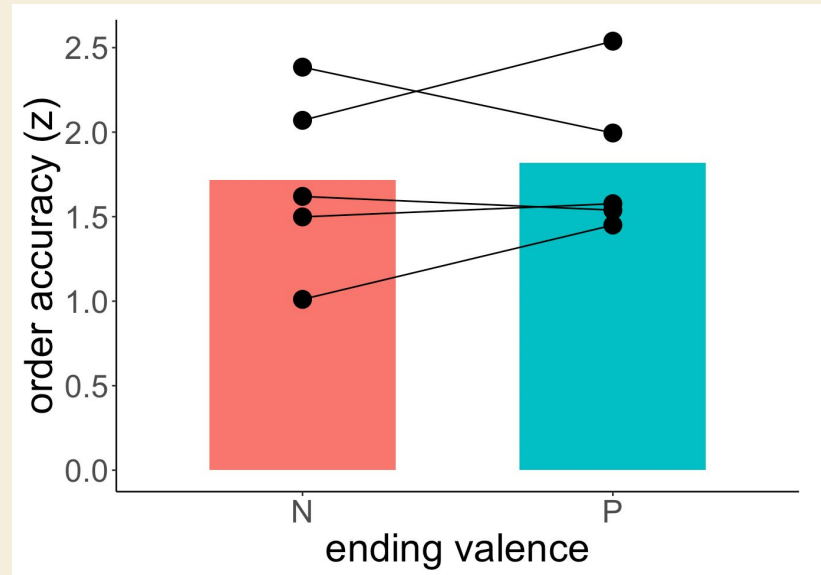


Hypothesis

- 01 Participants might recall more details from stories with negative endings than stories with positive endings
- 02 Participants might recall stories with positive endings more in order than stories with negative endings

Findings - Order Accuracy

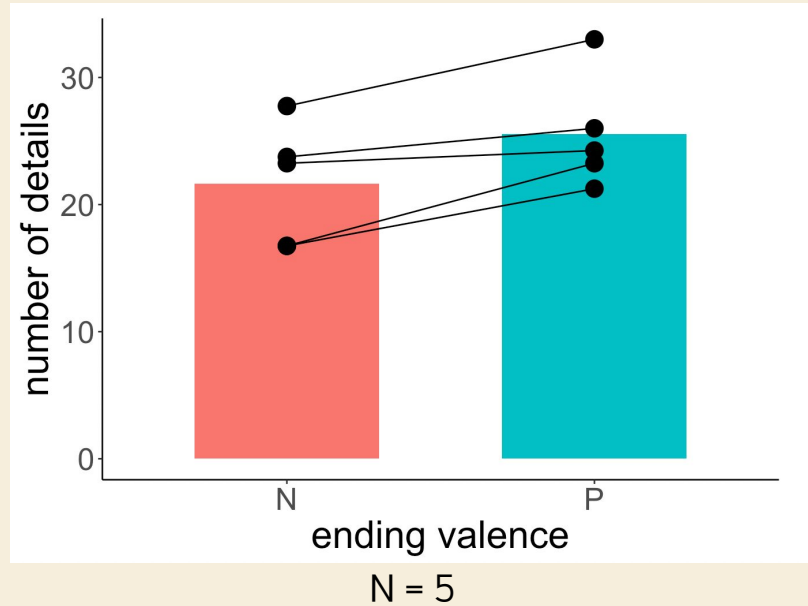
- Calculating the mean score of correlation between the order participants recalled and the “real” order for stories in each valence condition
- $t(4) = -0.64, p = 0.56, CI = [-0.55, 0.35]$



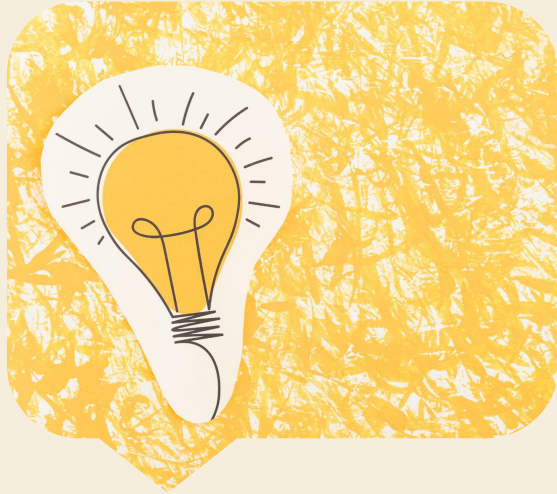
N = 5

Findings - Number of Details

- Calculating the mean score of the number of details for each valence
- $t(4) = -3.89$, $p = 0.018$, $CI = [-6.68, -1.12]$
- Significant results as p -value (0.018) is less than 0.05



Conclusions



- Emotional valence of endings do not significantly affect participants' memories regarding order.
- Participants remember more details from stories with positive endings than stories with negative endings.
- Emotional valence affects different forms of memory in different ways.
- The results are based on five subjects.