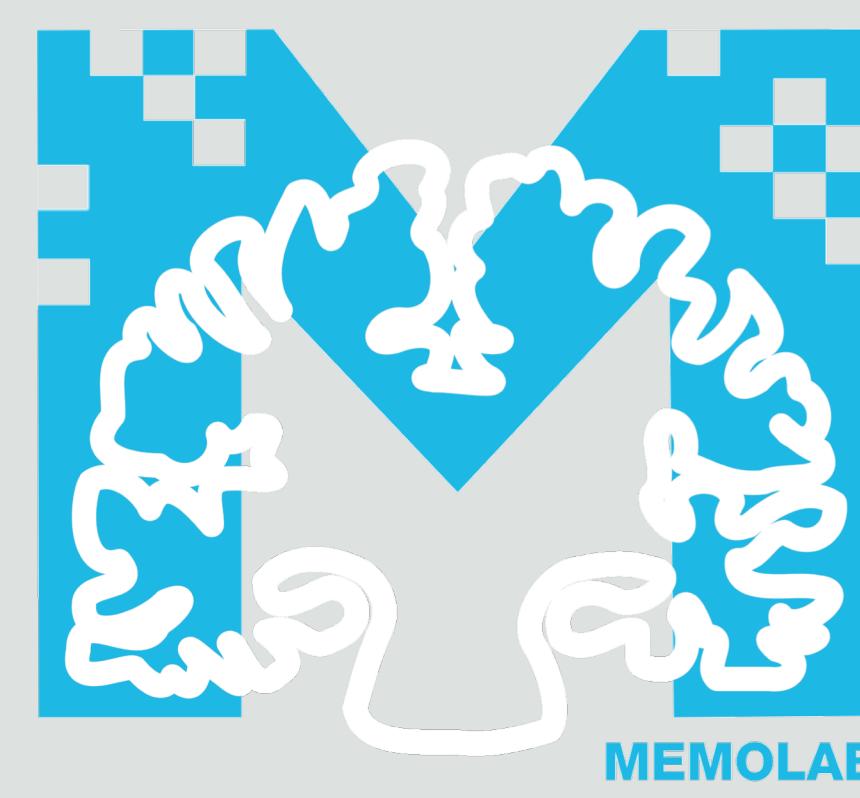




BOSTON
COLLEGE

NEWS FLASH! INVESTIGATING THE DYNAMICS OF EMOTIONAL MEMORY USING REAL-LIFE EVENT VIDEOS

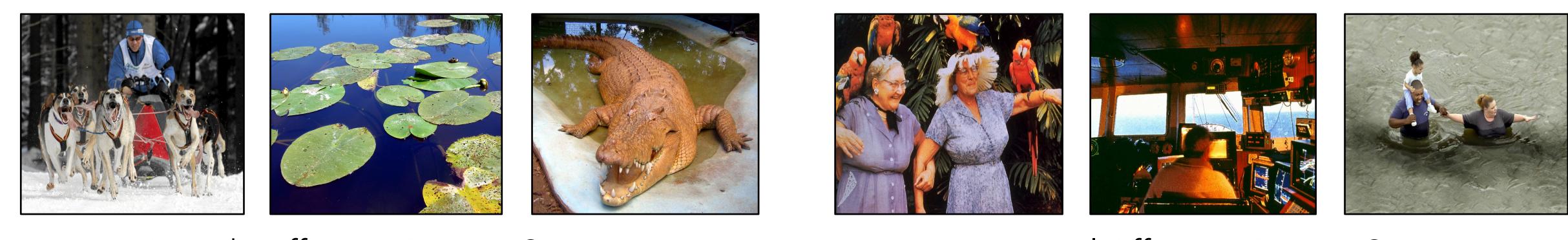
Helen Schmidt, Rosalie Samide, Rose Cooper, & Maureen Ritchey



BACKGROUND

How does emotion dynamically affect cognition?

Static images are frequently used to study emotion...



Nencki Affective Picture System (NAPS; Marchewka et al. 2014)

International Affective Picture System (IAPS; Lang et al., 2008)

...but natural events unfold over time.

In this study, we selected a subset of our news video stimulus set to see how the dynamic emotional content of the videos affected subjects' abilities to recall the stories covered.

We hypothesized that emotional videos would be remembered most frequently and vividly.

METHODS

Participants

N = 35 healthy young adults

Viewing Phase

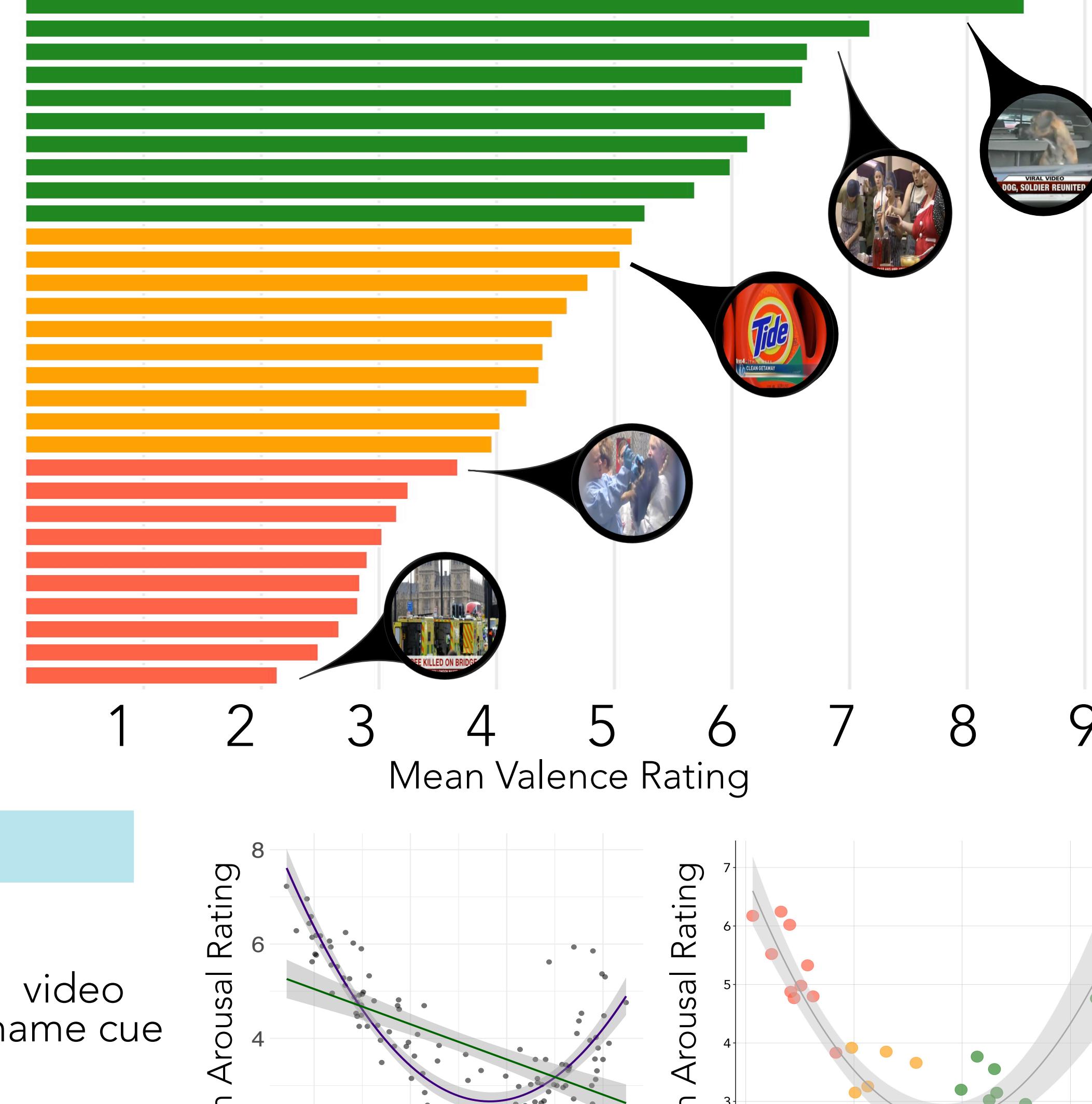


Watch 30 news videos
- 10 negative
- 10 neutral
- 10 positive

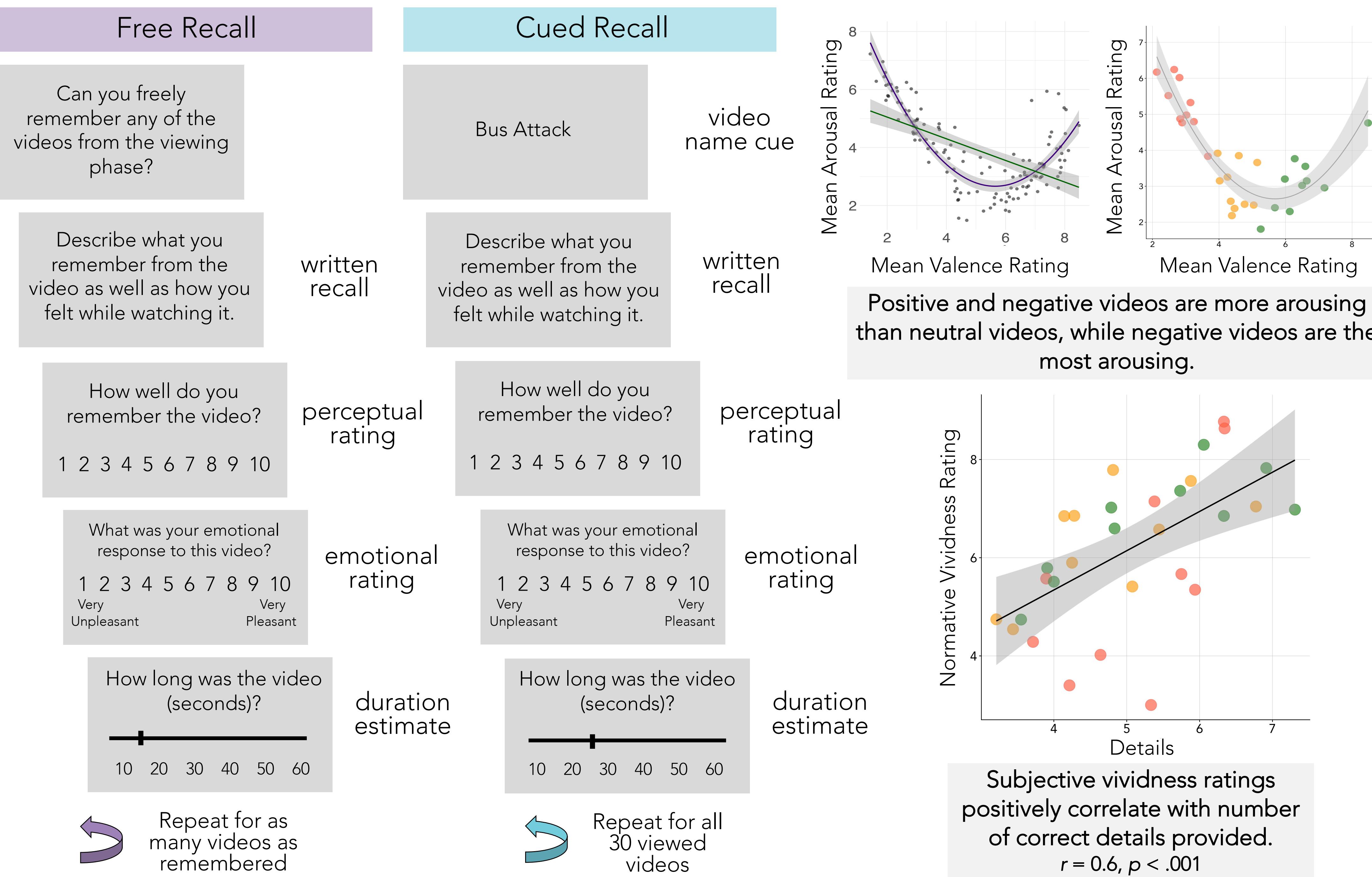
Video Selection Criteria:

- Mean valence rating
- Dynamic valence variability
- Mean arousal rating
- Story content and memorability

Selected Subset Mean Valence

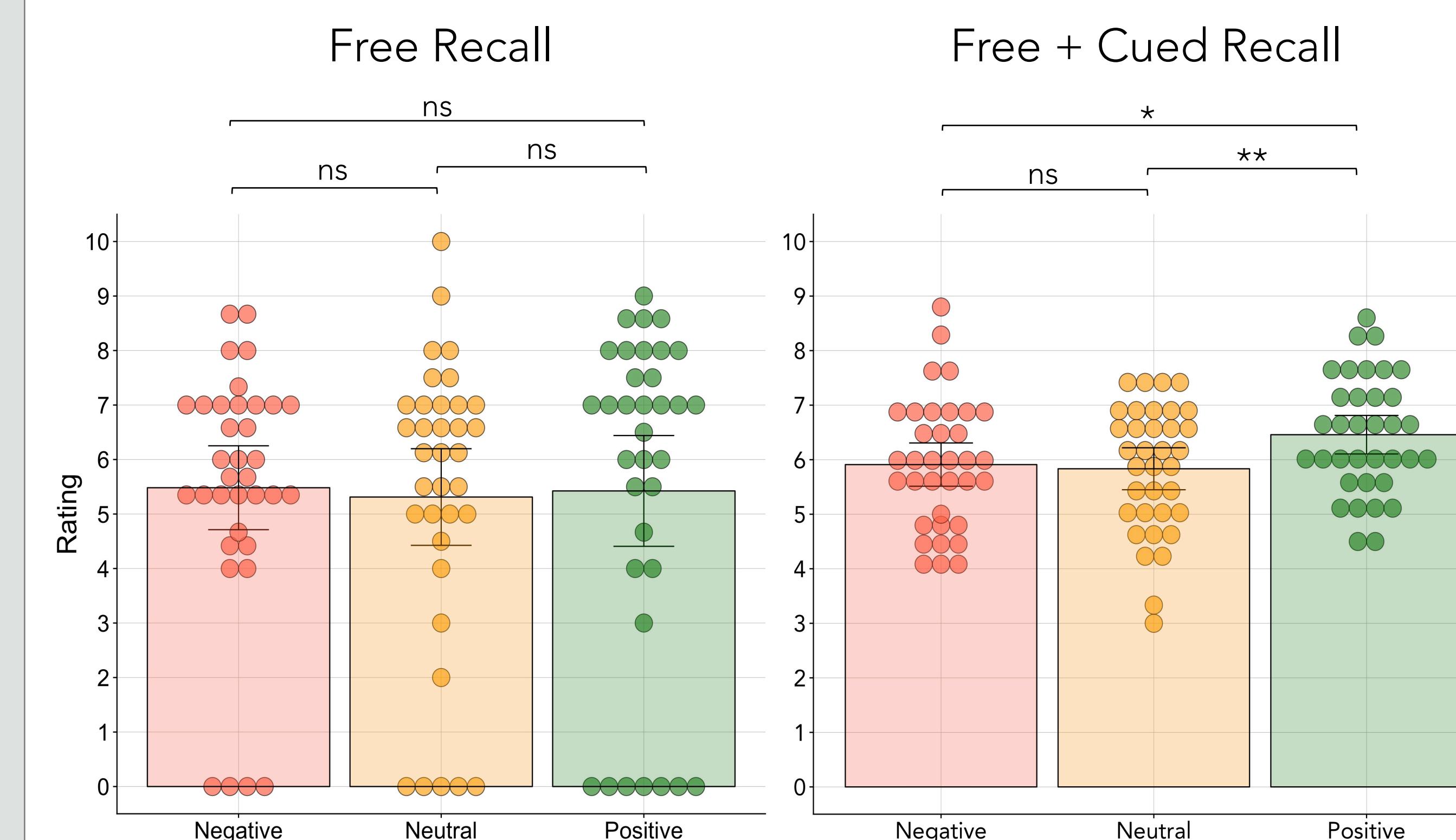


Recall Phase (24 hours later)



RESULTS

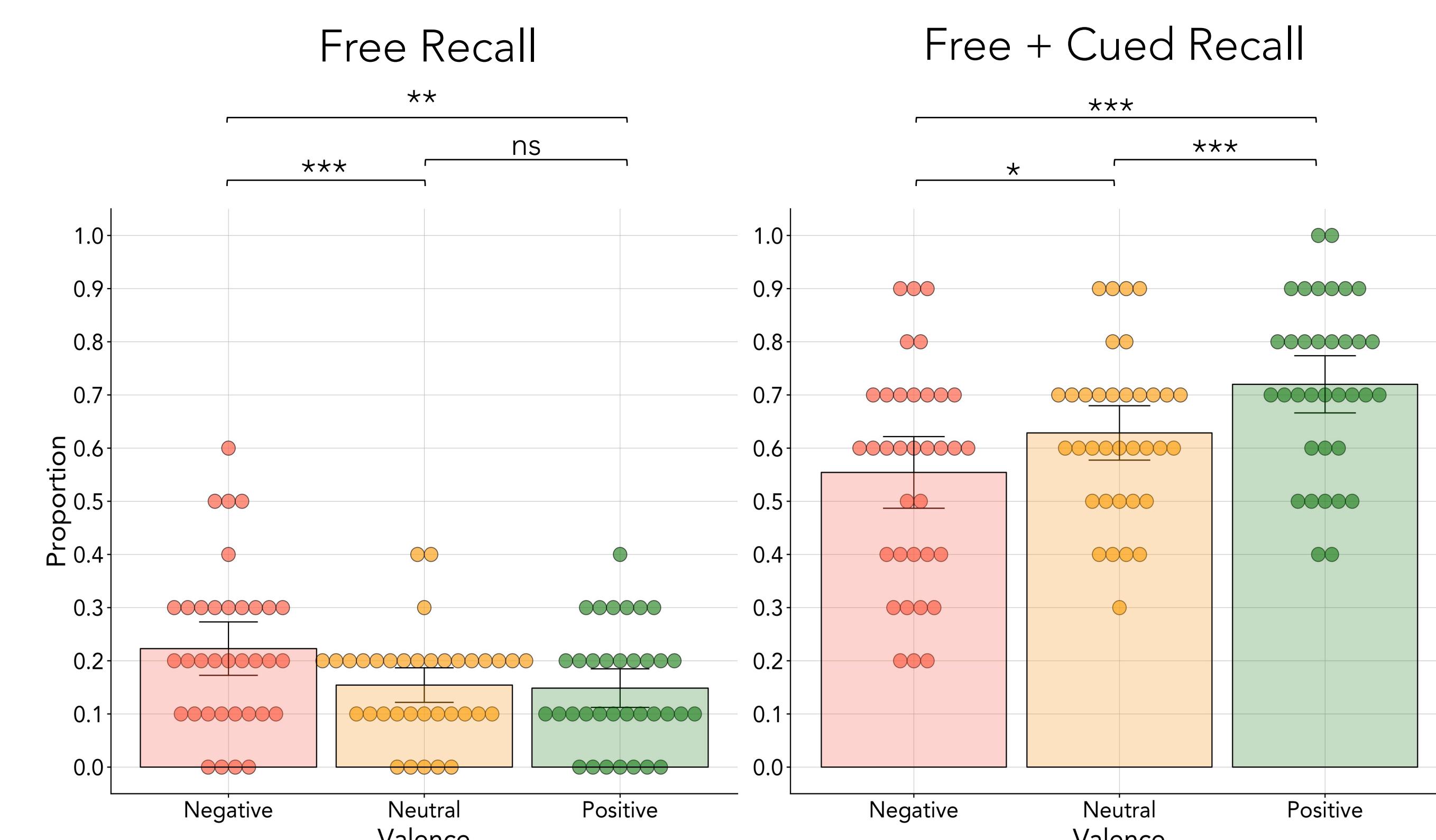
Perceptual Ratings



No significant difference in perceptual ratings during free recall, and positive videos are the most perceptually vivid overall.

Free Recall ($p = .945$), Total Recall ($p < .001$)

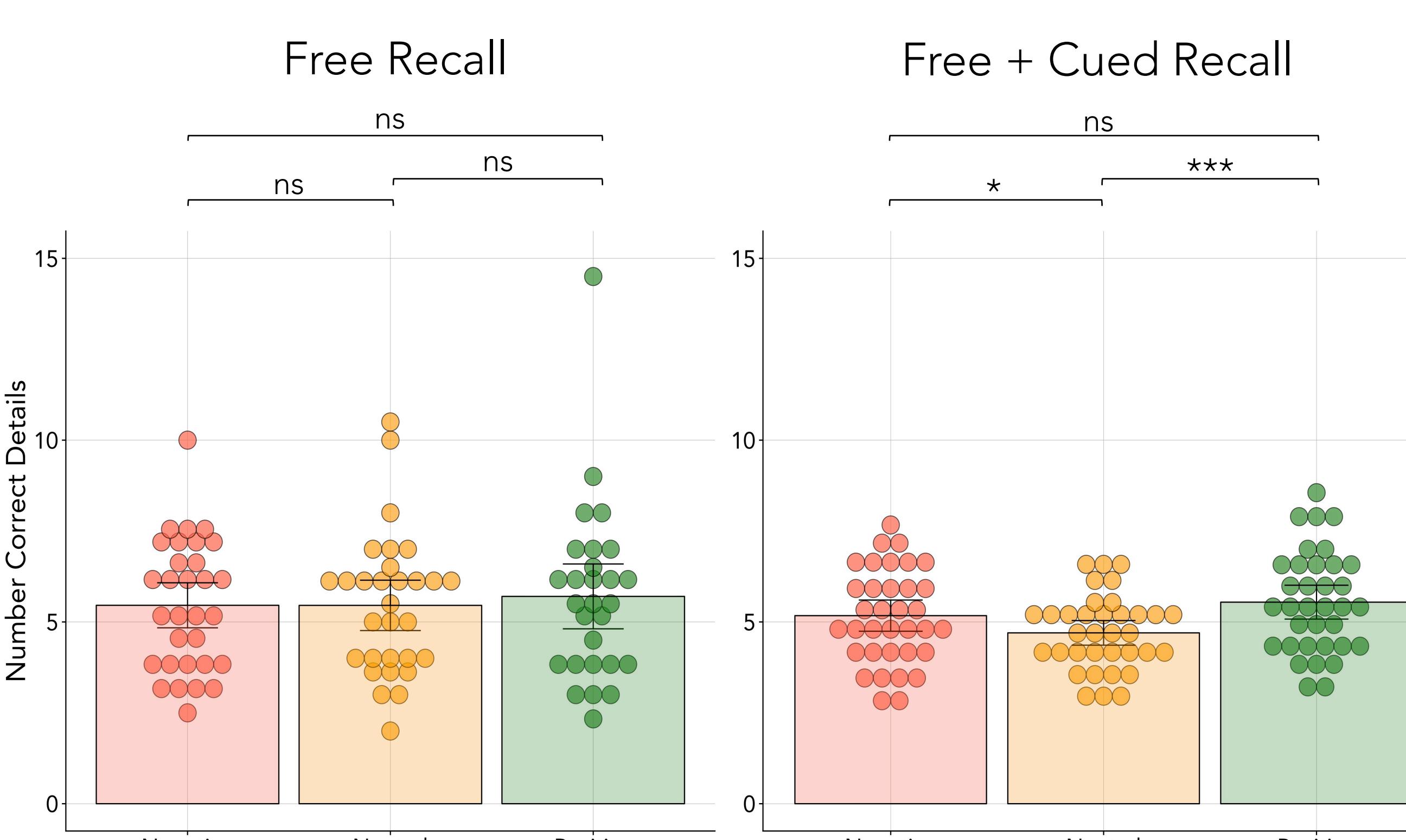
Proportion Remembered



Negative videos are recalled more frequently during free recall, while positive videos are remembered most often overall.

Free Recall, Total Recall ($p < .001$)

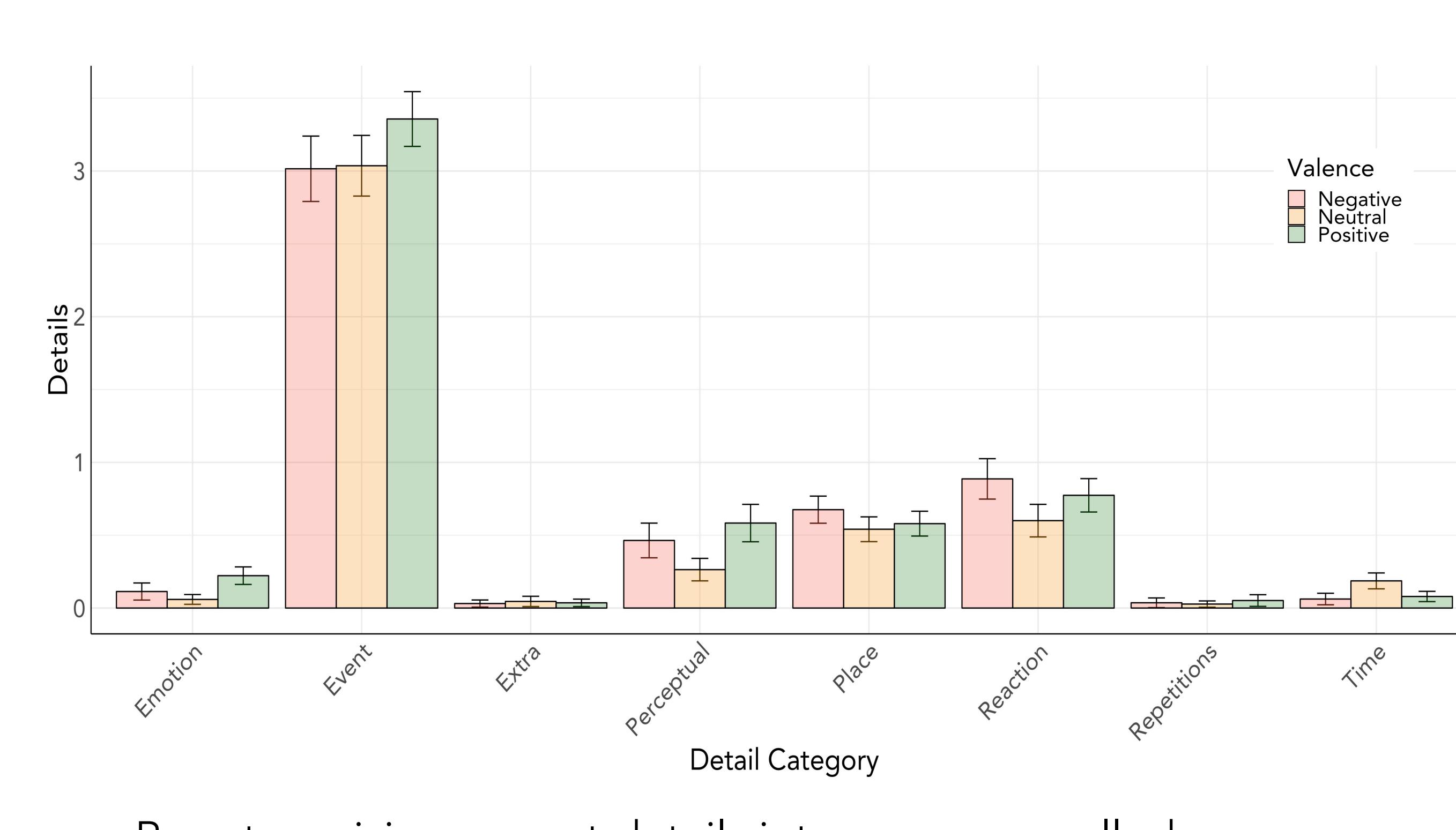
Correct Details



No significant difference in detail number during free recall, but more details are given when recalling emotional videos overall.

Free Recall ($p = .863$), Total Recall ($p < .001$)

Detail Categories



By categorizing correct details into groups, recalled responses overwhelmingly contain event details, with additional inclusions of perceptual, place, and reaction details (Levine et al. 2002).

SUMMARY

- Subjective perceptual vividness does not vary by valence during free recall, but it is higher for positive videos overall.
- Negative videos are remembered most frequently during free recall, but positive videos are remembered more frequently than negative or neutral videos overall.
- Overall, more correct details are given for emotional videos than for neutral videos.
- Emotional videos increase the number of emotional, event, perceptual, and reaction details recalled.

FUTURE PLANS

- New design paradigm to investigate temporal clustering vs emotional clustering during free recall.
- Instruct participants to include additional detail categories – perceptual, emotional, time, place – in their recall responses when possible.