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Gaze aversions act as social signals conveying the performer's cognitive state

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Background

- During conversations, people often avert their gaze at certain moments of the interaction, especially while they are engaged in effortful thinking [1].
- Previous studies explained this **gaze aversion (GA)** behavior as an attentional avoidance mechanism, which is sensitive to the physical attributes of the visual distraction [2] and to cognitive load [1].
- Here we hypothesize that GAs serve as social signals, conveying to conversation partners that performers are currently engaged in cognitive processing, relevant to the conversation.



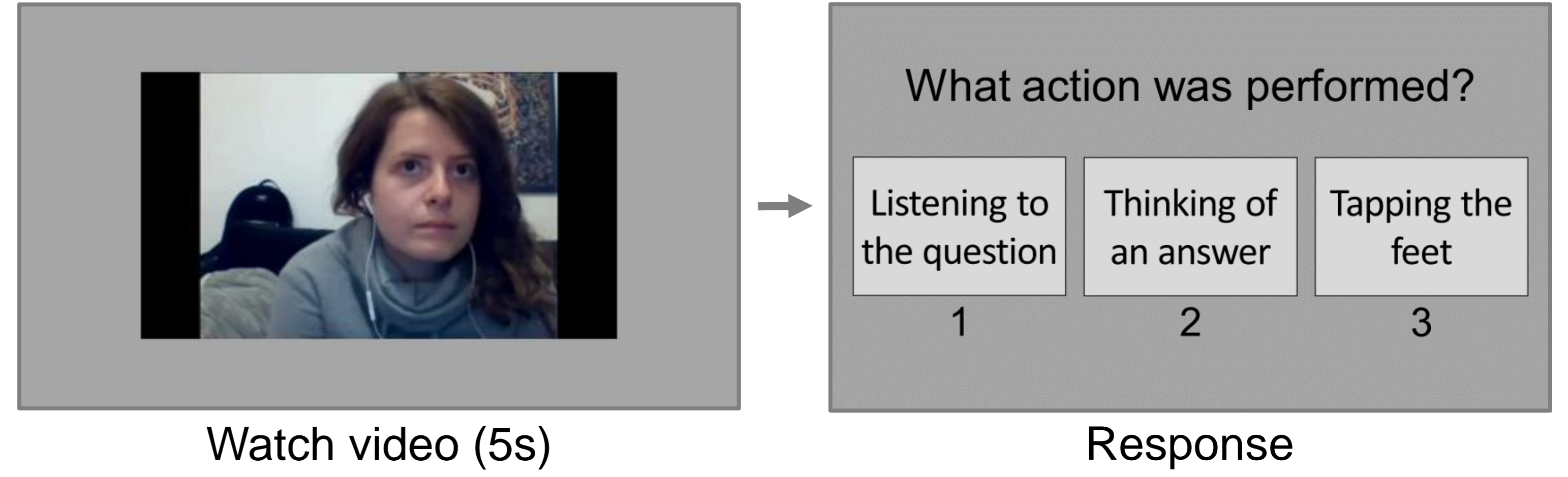
Processing...

Research question

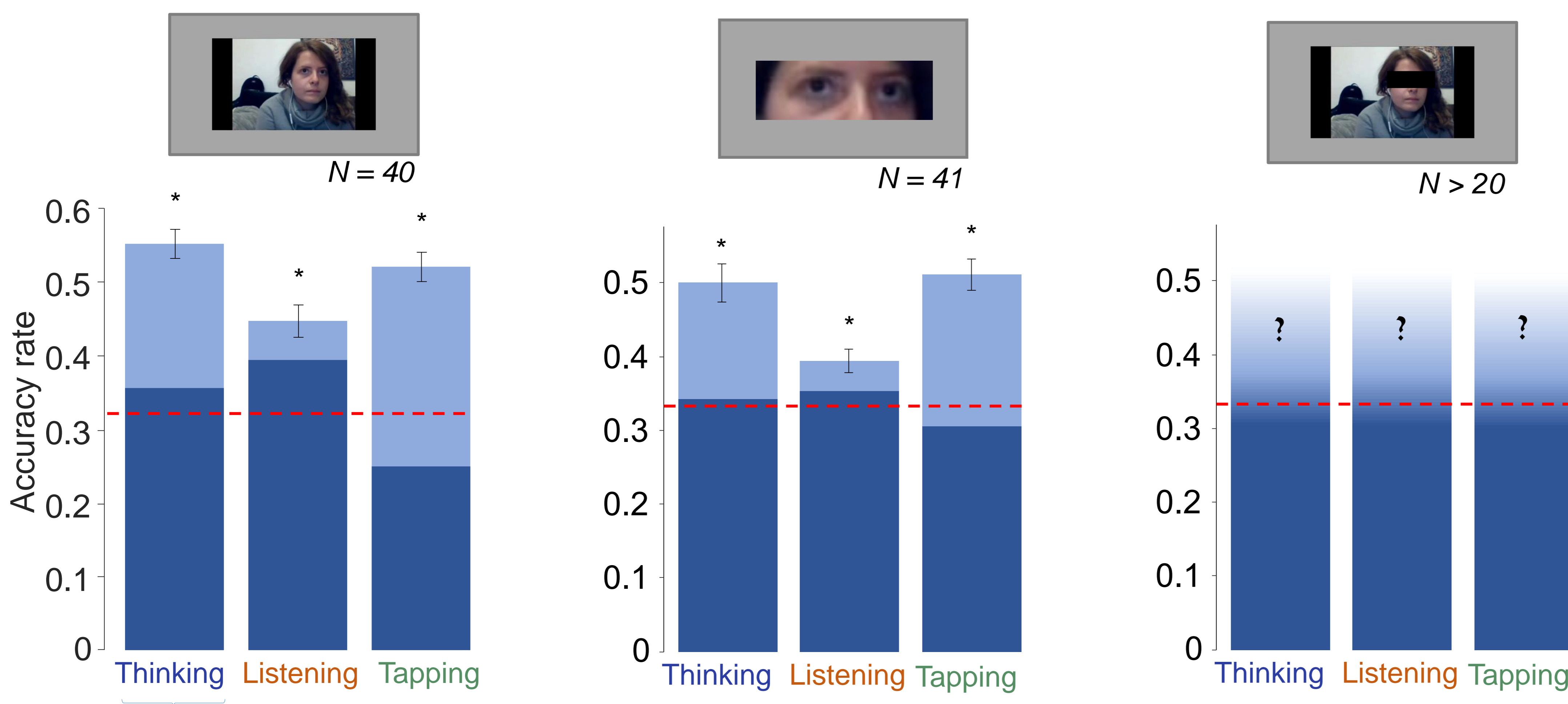
Do GAs serve as a **social signal**, conveying to observers information regarding the performer's mental state?

Methods

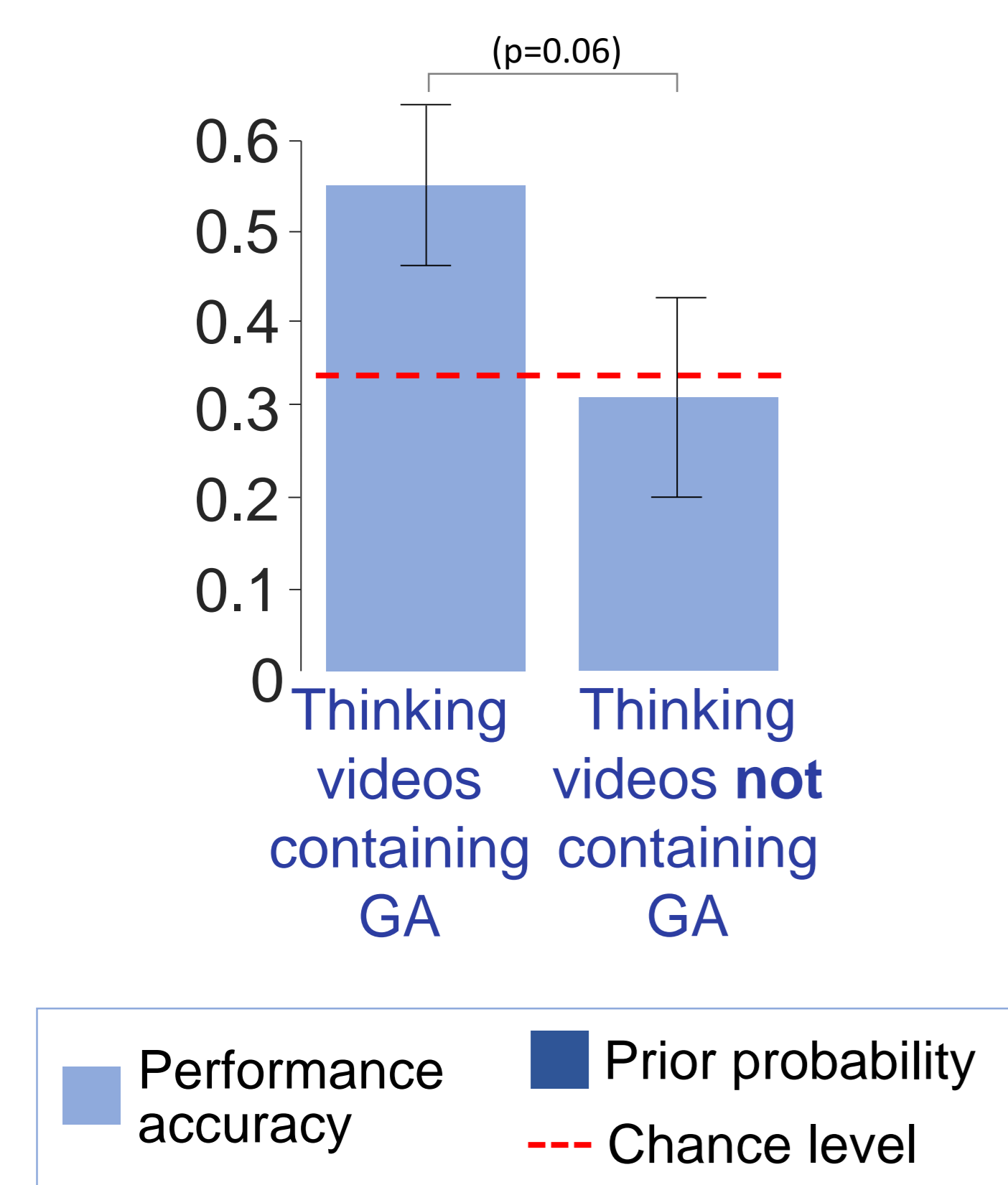
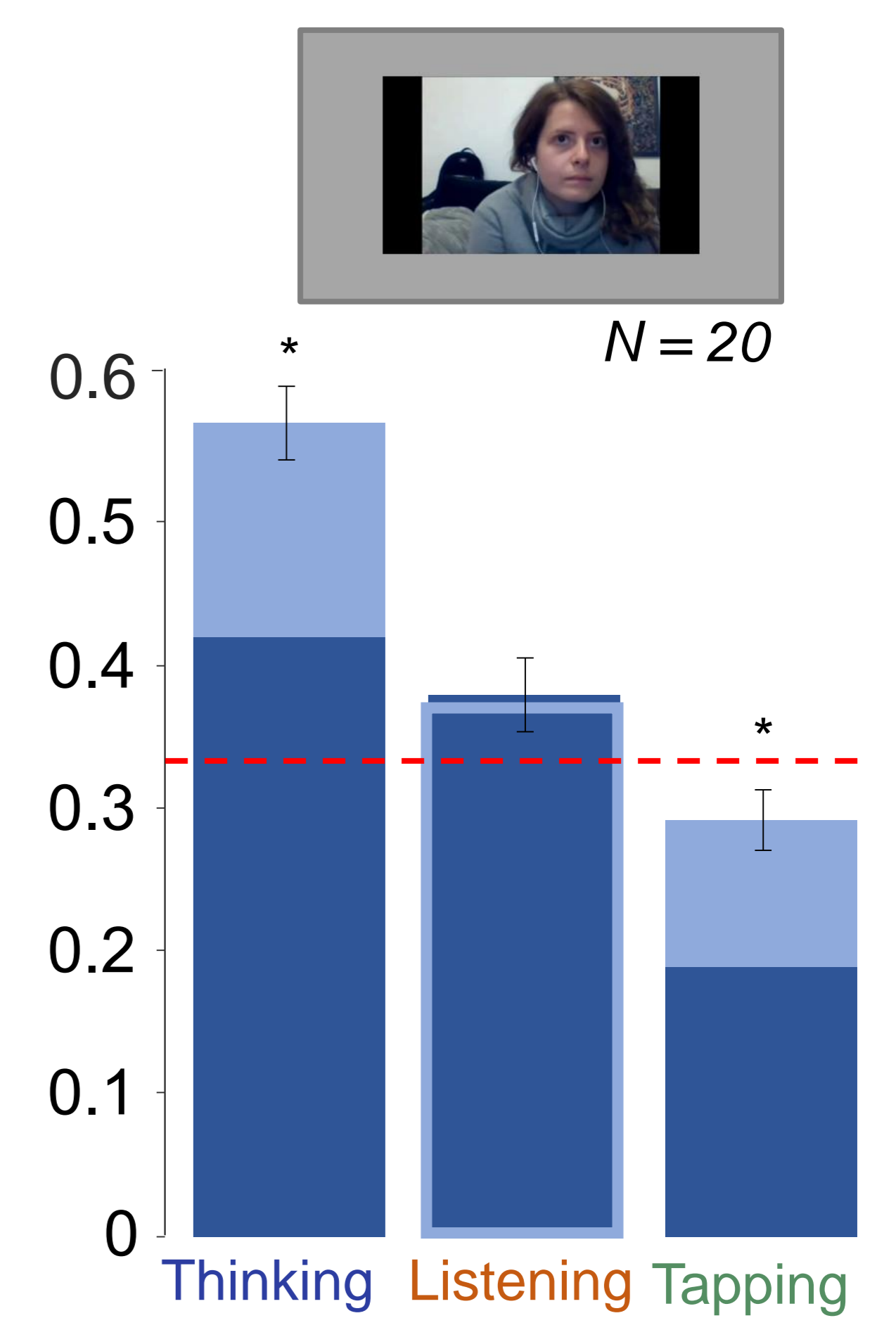
- Participants watched videos of individuals **listening**, **thinking**, or **tapping** and were requested to indicate what the depicted individuals are doing



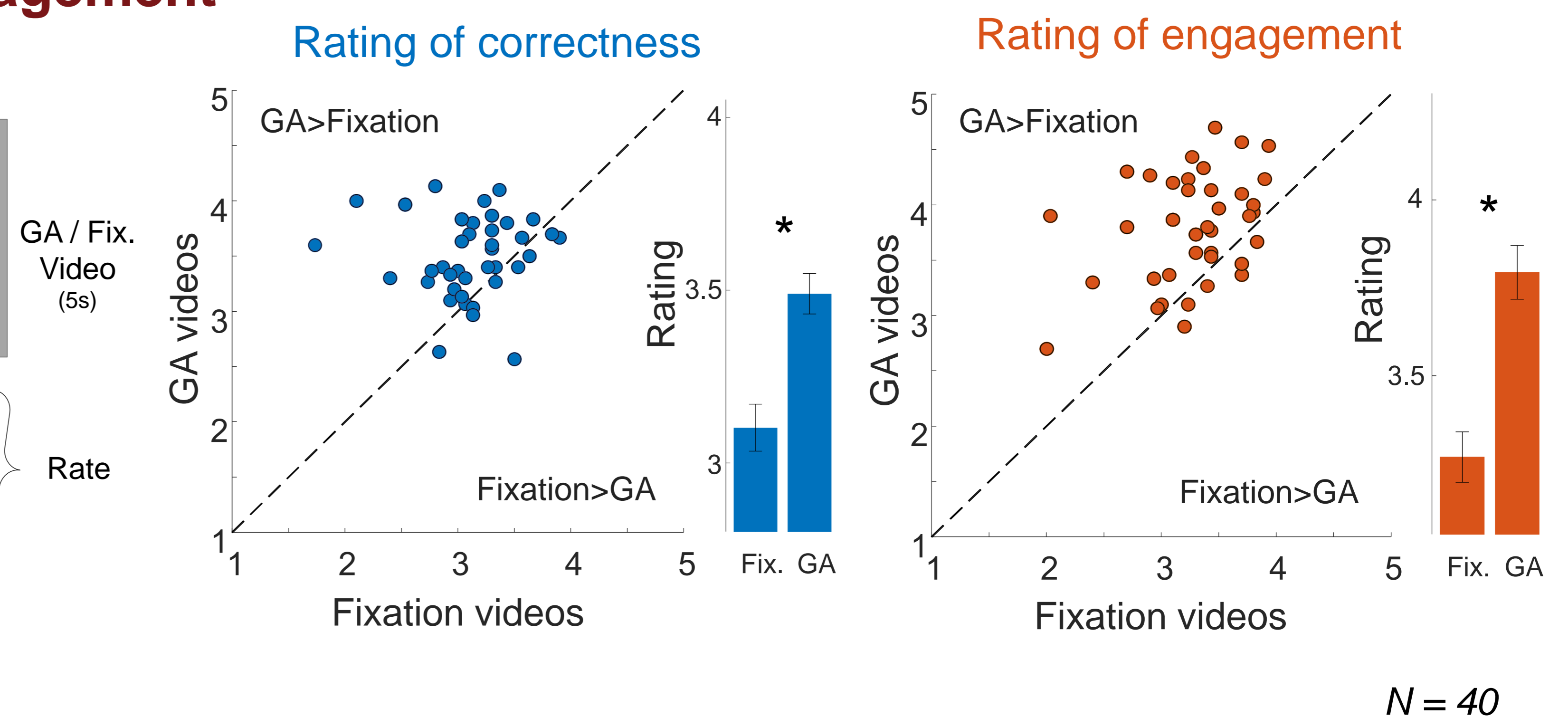
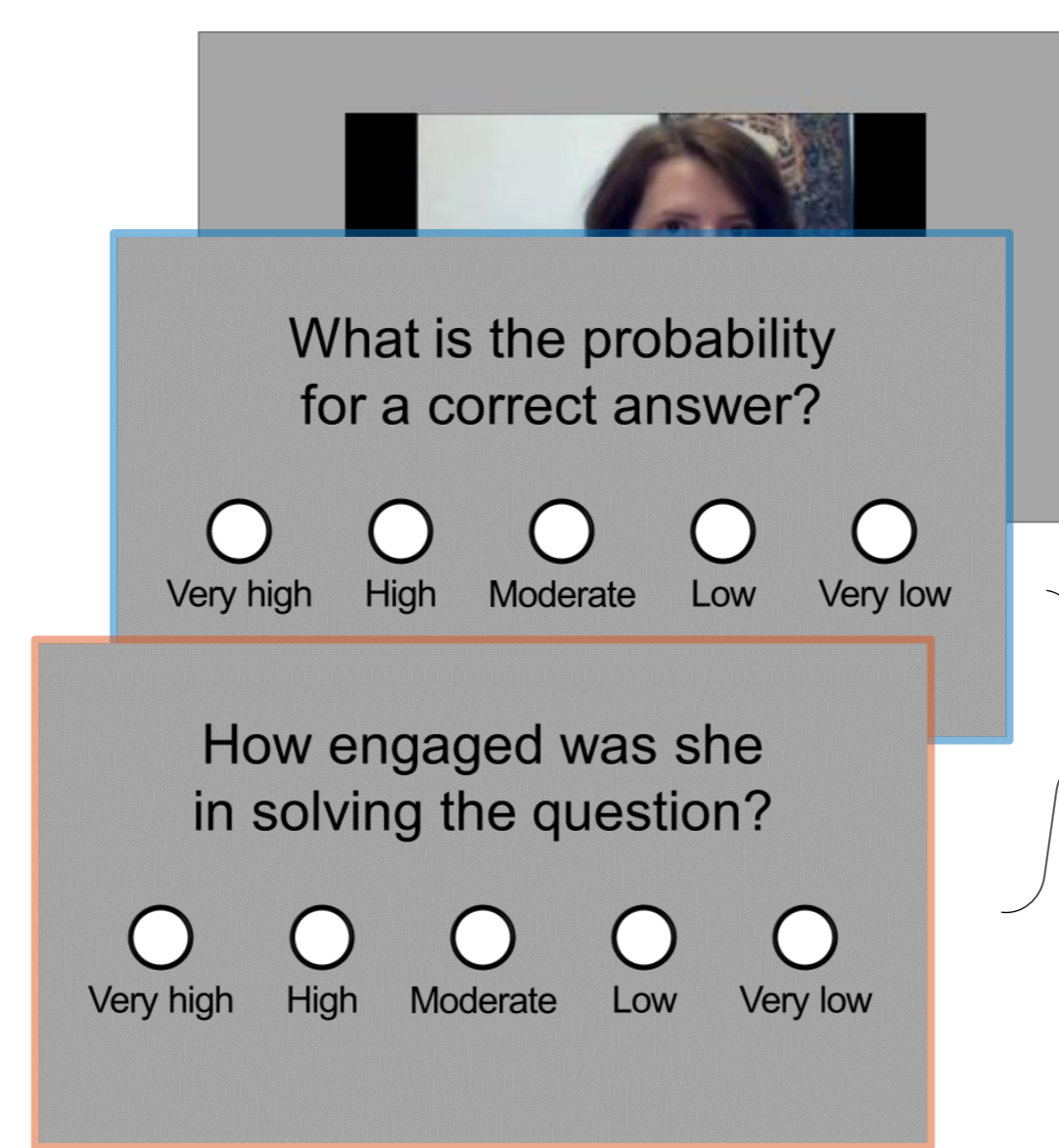
Results – Adults



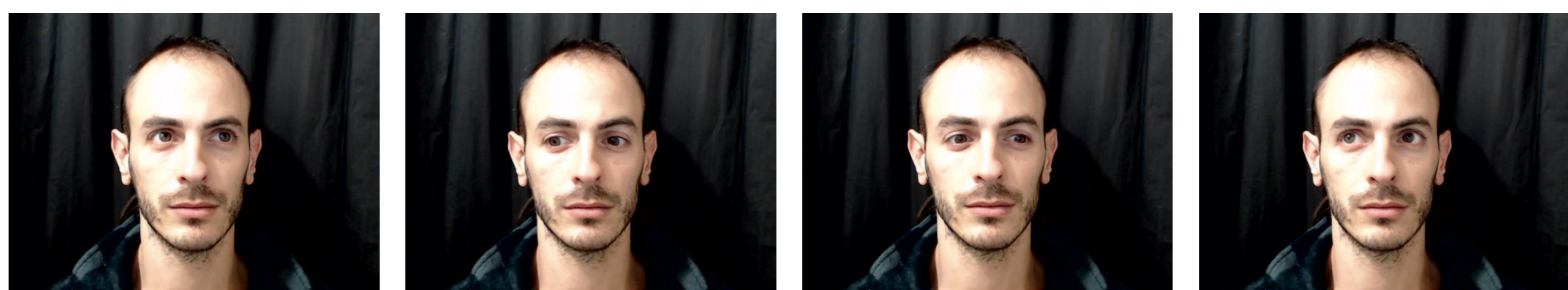
Results – Children (7-8 y/o)



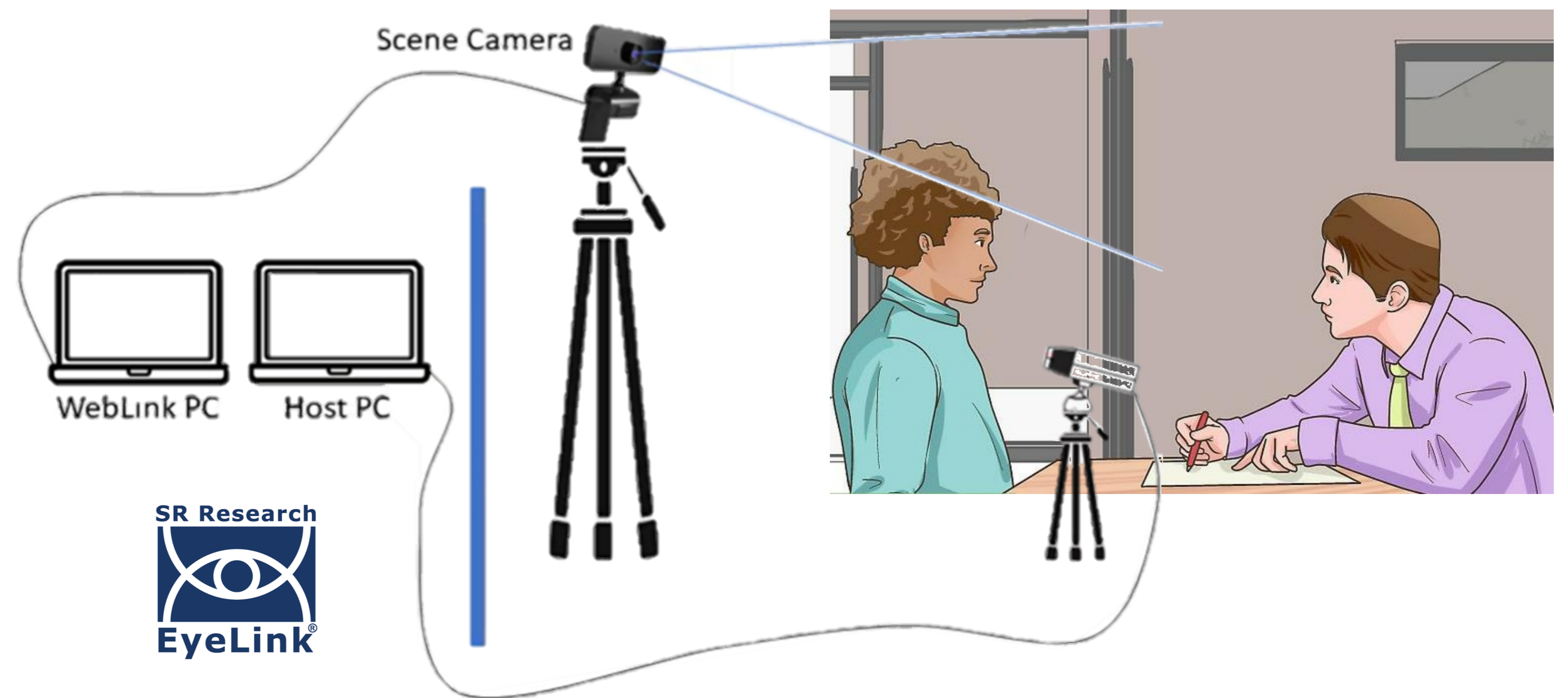
GA as a signal for engagement



Controlled GA



Live teacher-student interaction



Conclusions

- **Cognitive state can be interpreted based on visual signals**
- **Gaze aversions serve as social cues** conveying to observers information about mental processing of the performers.
- The ability to identify a thinking process by GA seems to develop already at the age of 7-8, despite a lower general ability to interpret a cognitive state

References

- [1] Glenberg, A. M., Schroeder, J. L., & Robertson, D. A. (1998). Averting the gaze disengages the environment and facilitates remembering. *Memory & cognition*.
- [2] Abeles, D., & Yuval-Greenberg, S. (2017). Just look away: Gaze aversions as an overt attentional disengagement mechanism. *Cognition*, 168, 99-109.