Be On the Lookout:
Racial Biases in Prospective Person Memory

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Prospective Person Memory

- Prospective Memory (PM) is "remembering to remember:" It is a memory system that enables people to recall an intention to do something in the future [1].
- Person Prospective Memory (PPM) is a type of event-based PM [2], where individuals must remember to perform an action when they encounter a specific person (e.g., AMBER alerts).

Figure from Lampinen, Curry, & Erickson (2016).
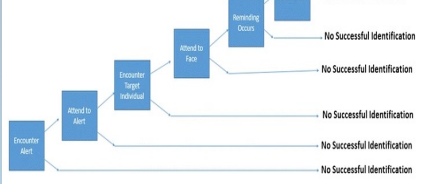
- Presenting multiple photos improves recognition in PM tasks, increasing identification accuracy by creating a more adaptable mental image of targets [2].

Racial Biases in Face Memory

- People are often less accurate recognizing other-ethnicity faces [3].
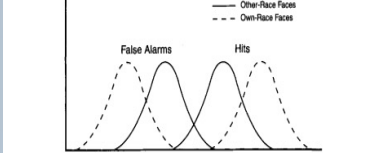

Figure from Meissner & Brigham (2001)

Figure 1. "Mirror-effect" pattern demonstrated in hit and false alarm responses to own-race and other-race faces.

- Prior research has found that participants looking for Caucasian faces detected **them at a higher rate** than participants looking for Indian/Asian faces [4].

Attentional Cost in PPM:

- Participants monitoring for Indian faces showed lower accuracy and slower response to an Indian PM target, reflecting greater cognitive demands in recognizing other-race faces during PPM tasks consistent with known "other race" memory effects [4].
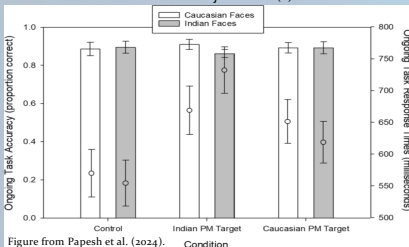

Figure from Papesh et al. (2024).

Every year, approximately 100,000 missing persons are reported to the police. In addition to conducting their own searches, authorities often call upon the public for assistance, using methods such as lost person-posters, social media posts, AMBER alerts, and billboards. The efficacy of these methods relies on the people seeing them engaging multiple memory-related processes: They must attend, learn the features of the missing person, remember to be on the lookout, and then successfully recognize the missing person once they are spotted. These processes place heavy demands on prospective memory (PM), the ability to remember to do something in the future. Unlike laboratory PM tasks, search for missing persons has a social element: Often, the missing person will be from a different social or racial group than the people called upon to search for them. Historically, efforts to search for missing people from non-White ethnic groups get less effort and publicity than searches for people from White ethnic groups. Our research expands on recent findings showing that search for non-White missing persons is more challenging by testing techniques to improve detection of non-White missing persons. Participants in our study completed unrelated face processing tasks while attempting to spot a White or Asian "missing person." The missing persons alerts participants were shown depicted either one or three photos of the missing person. Results will inform best practices in calling upon the public for assistance with search for missing people.

The Present Study

- Participants: n = 204 (M_{age} = 19.37)
- Design: 2 (Missing Person Race: Asian/European) x 2 (Number of Photos: One/Three) between-groups design.
- Participants were shown 1 or 3 Indian or White PM targets, then did ongoing task and were asked to identify PM target-PM target appeared 8 times.
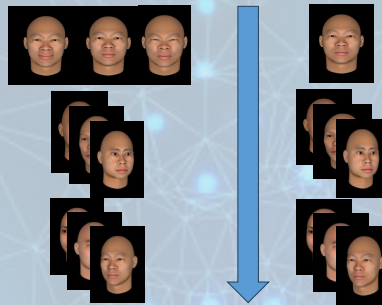
Hypotheses

H_1: Other-race PM faces will be more challenging to spot, but multiple photos at encoding will help.

- This should emerge in lower PM detection rates and/or slower PM detection times overall.
- Only other-race PM performance should be improved when multiple photos are shown at encoding.

H_2: Monitoring for other-race PM faces should produce greater attentional costs when the ongoing task (OT) face race matches the PM face.

- This should emerge in lower OT accuracy and slower OT decision times when the PM race and OT face race are the same.
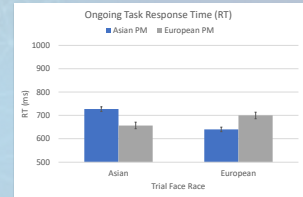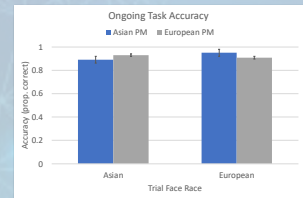
Results

H_1: ORB in PPM.
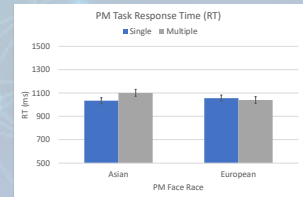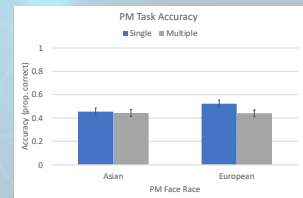
- No differences in PM performance.

H_2: Attentional Costs

- OT performance is slower and more error-prone when the PM and ongoing task faces are from the same race (interaction $ps < .001$).

Conclusions

- H1: No differences emerged in PM performance, possibly because of sample demographics (MSI) or easy OT
- H2: When monitoring for a person from a specific race, people slow down when cues suggest the person may appear.

Future Directions

- Collect data with a more diverse sample.
- Compare focal and non-focal ongoing tasks.

References

- 1 Einstein, G. O., & McDaniel, M. A. (2005). Prospective Memory: Multiple Retrieval Processes. Current Directions in Psychological Science, 14(6), 286–290.

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- 3 Meissner, C. A., & Brigham, J. C. (2001). Thirty years of investigating the own-race bias in memory for faces: A meta-analytic review. Psychology, Public Policy, and Law, 7(1), 3.

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