Who Performs Better at Searching for and Identifying Missing Children: Children or Adults?

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Introduction

The own-age bias - the finding that people are better able to recognize faces from their own age group than other age groups[1, 2]

Prospective person memory – remembering to complete a task in the future.
Required for sighting missing persons[3, 4]

Children are better at recognizing the faces of children; therefore, they may perform better at sighting missing children than adults.
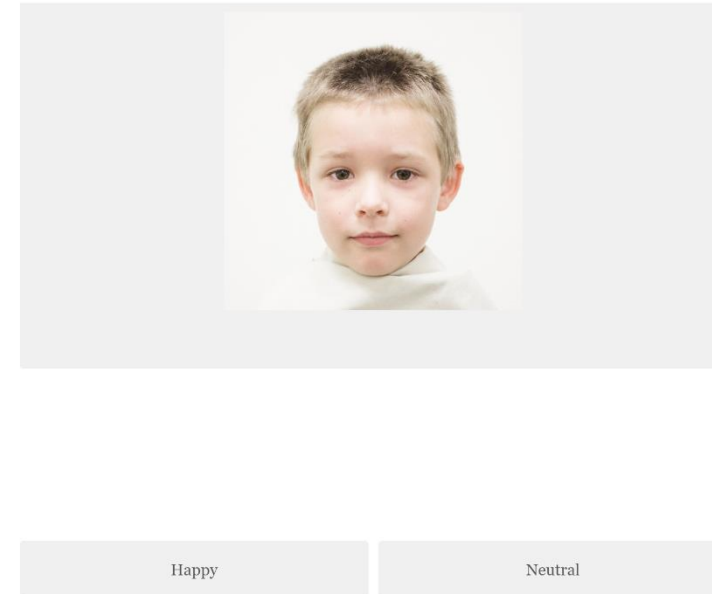
Objectives

This project is focused on determining whether the own-age bias affects how well children and adults perform at searching for missing children and adults.
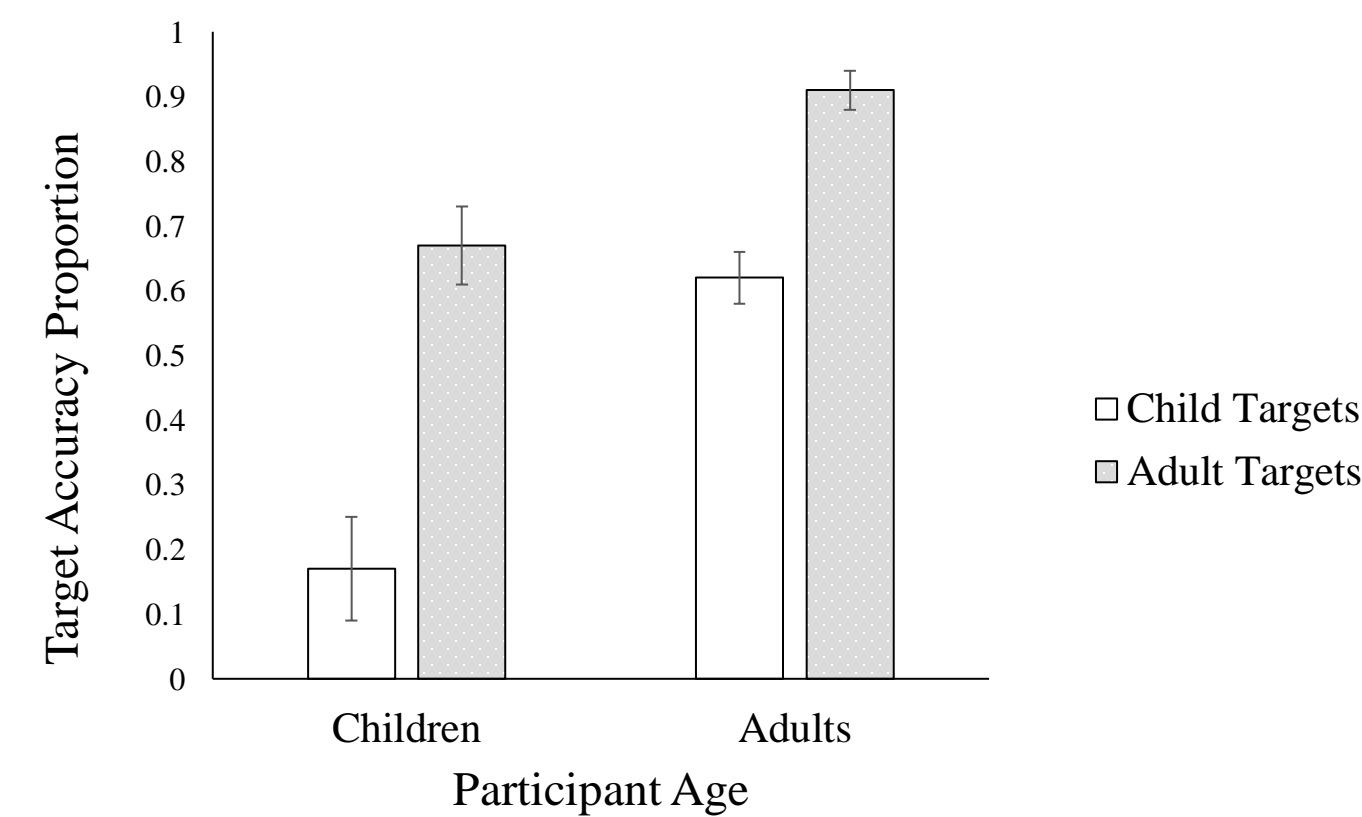
Hypotheses:
1. Children will perform better at sighting children's faces than they will at sighting adults' faces because of the Own Age Bias.
2. Adults will perform better at sighting adult's faces than they will at sighting children's faces because of the Own Age Bias.
3. Children will be better than adults at sighting children's faces.
4. Adults will be better than children at sighting adult's faces.

References

1. Harvard, C., Memon, A., Laybourn, P., & Cunningham, C. (2012). Own-age bias in video lineups: A comparison between children and adults. Psychology, Crime Sand Law, 18(10), 929-944. doi:10.1080/1068316X.2011.598156

2. Hills P., Lewis M. (2011). The own-age face recognition bias in children and adults. Quarterly Journal of Experimental Psychology, 64(1), 17-23. doi:10.1080/17470218.2010.537926

3. Lampinen, J. M., Arnal, J. D., & Hicks, J. L. (2009). Prospective person memory. In M. Kelley (Ed.) Applied memory (pp.167–184). Hauppauge, NY: Nova.

4. Lampinen, J.M., & Moore, K.N. (2016). Prospective person memory in the search for missing persons. In C.S. Colls & S. Morewitz (Eds). Handbook of missing persons. New York City: Springer.

Methodology

Participants completed a face separation task in which they separated the faces of children and adults based on facial expressions while being on the lookout for 5 target faces. After they finished this task, they were asked to identify whether a person shown was one of the 5 target faces or not.
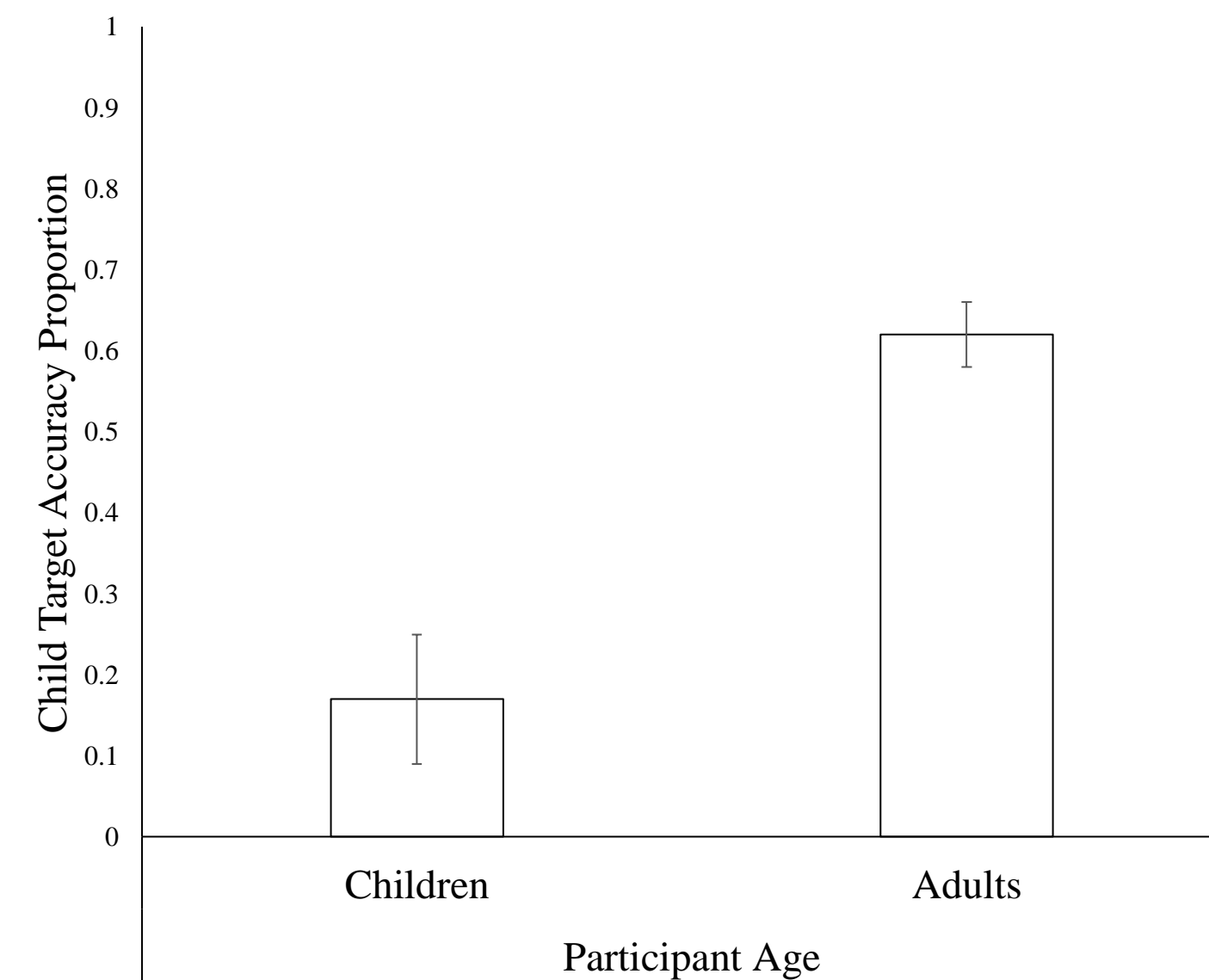
Results

Participants were more accurate at detecting adult targets (M = .79, SE = .03) than child targets (M = .4, SE = .04), $F(1, 114)$ = 71.17, $p < .001$, η_p^2 = .384.
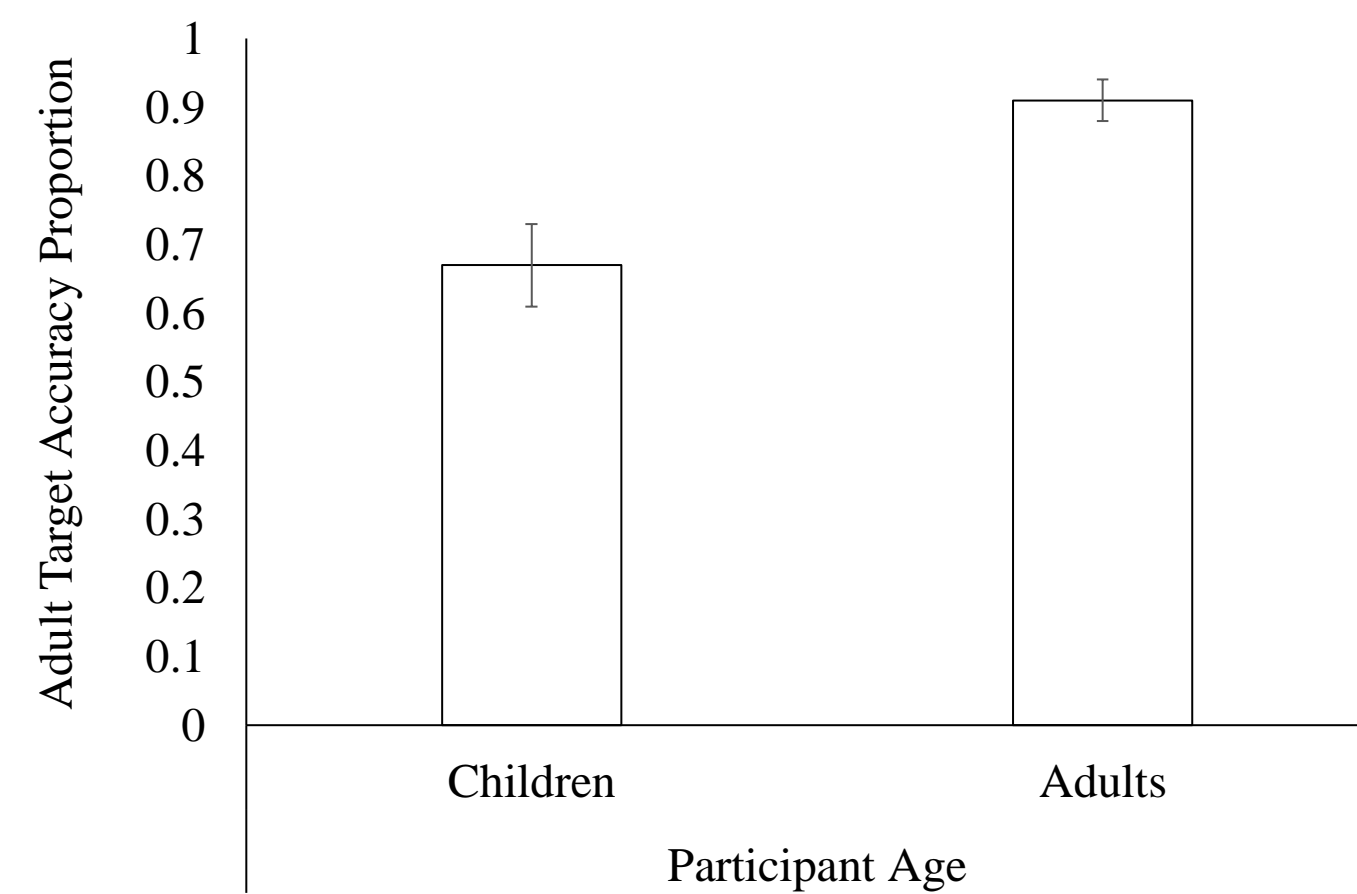
Adult participants were more accurate at detecting adult targets (M = .77, SE = .03) than child participants (M = .42, SE = .05), $F(1, 114)$ = 33.25, $p < .001$, η_p^2 = .226.

There was a significant interaction between target age and participant age on target accuracy, $F(1, 114)$ = 5.34, p = .023, η_p^2 = .045. The interaction was caused by children performing poorly at recognizing other children.

Results Cont.

Adult participants were more accurate at detecting child targets (M = 0.62, SE = 0.04) than child participants (M = 0.17, SE = 0.08), $F(1, 114)$ = 28.1, p = 0.92, η_p^2 = 0.2

Adult participants were more accurate at detecting adult targets (M = 0.91, SE = 0.03) than child participants (M = 0.67, SE = 0.06), $F(1, 114)$ = 13.19, p < 0.001, η_p^2 = 0.1

Discussion

- H1: Child participants performed worse at sighting child targets compared to adult targets thus implying the opposite of an own-age-bias.

- H3-4: Adults performed better overall at sighting targets compared to children.
- H2: Adults are better at identifying adult faces versus children faces therefore demonstrating an own-age-bias.

- This data is preliminary because data collection is ongoing for the child sample.
- This data suggests we should continue to recruit adults to search for missing people as they show greater accuracy at identifying missing people than children.
- Future research should study whether different child age groups do show an own-age-bias.

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