

Preschoolers attribute relative physical and social power from faces and postures



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Background

Young children are sensitive to differences in interpersonal power. By 4 years, children rate some faces as “stronger” than others (Cogsdill et al., 2014) and label people exhibiting expansive posture as “in charge” (Brey & Shutts, 2015). Although these labels mean different things, it is possible that children interpret facial and body cues similarly. For example, morphological cues that engender notions of physical strength might also engender notions of social power. Indeed, such functional relations between notions of physical and social power are evident in adults’ impressions of others (Lukaszewski et al., 2016) but the development of this conceptual organization is unknown.

Aims

Here we assess:

1. Whether children show the same overall tendency to attribute relative physical and social power on the basis of cues to which they have previously shown sensitivity (faces and postures)
2. Patterns of developmental change in children’s sensitivity to these distinct notions of power.
3. Whether children detect correspondences between power-relevant information contained in faces and power-relevant information contained in bodies.

Study 1 - Labeling Task

2 x 2 within-subject design across four age groups:

3 years: n = 32/32, 16f, M = 3.57 years, SD = .31

4 years: n = 22/32, 10f, M = 4.58 years, SD = .25

5 years: n = 29/32, 16f, M = 5.53 years, SD = .28

Adults: n = 32/32, 16f, M = 20.04 years, SD = 1.57

Question Type

Who's **stronger**?

Who's **in charge**?

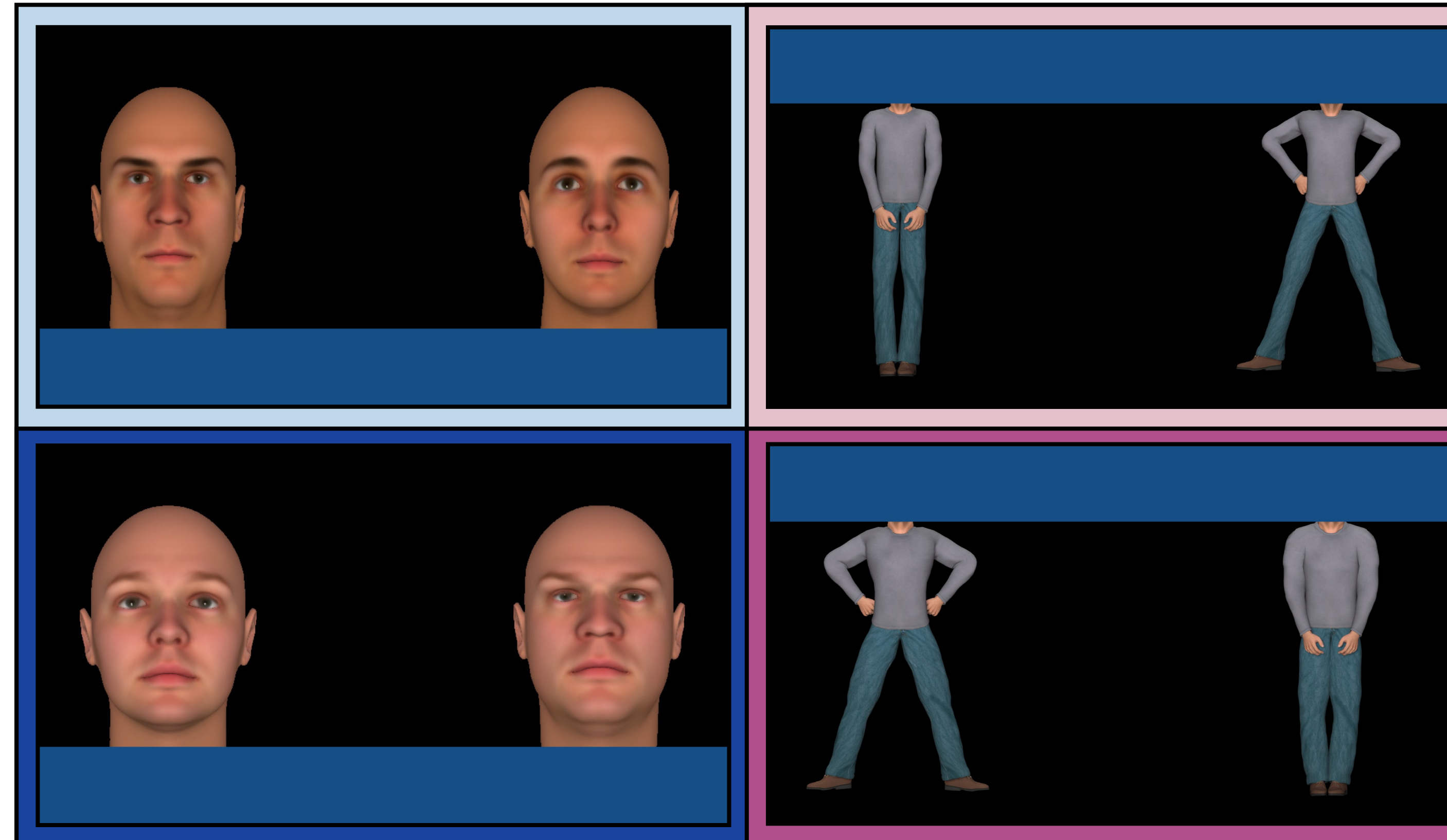
Cue Type

Faces

Postures

"dominance" modeled over morphology

expansiveness via arm and leg position

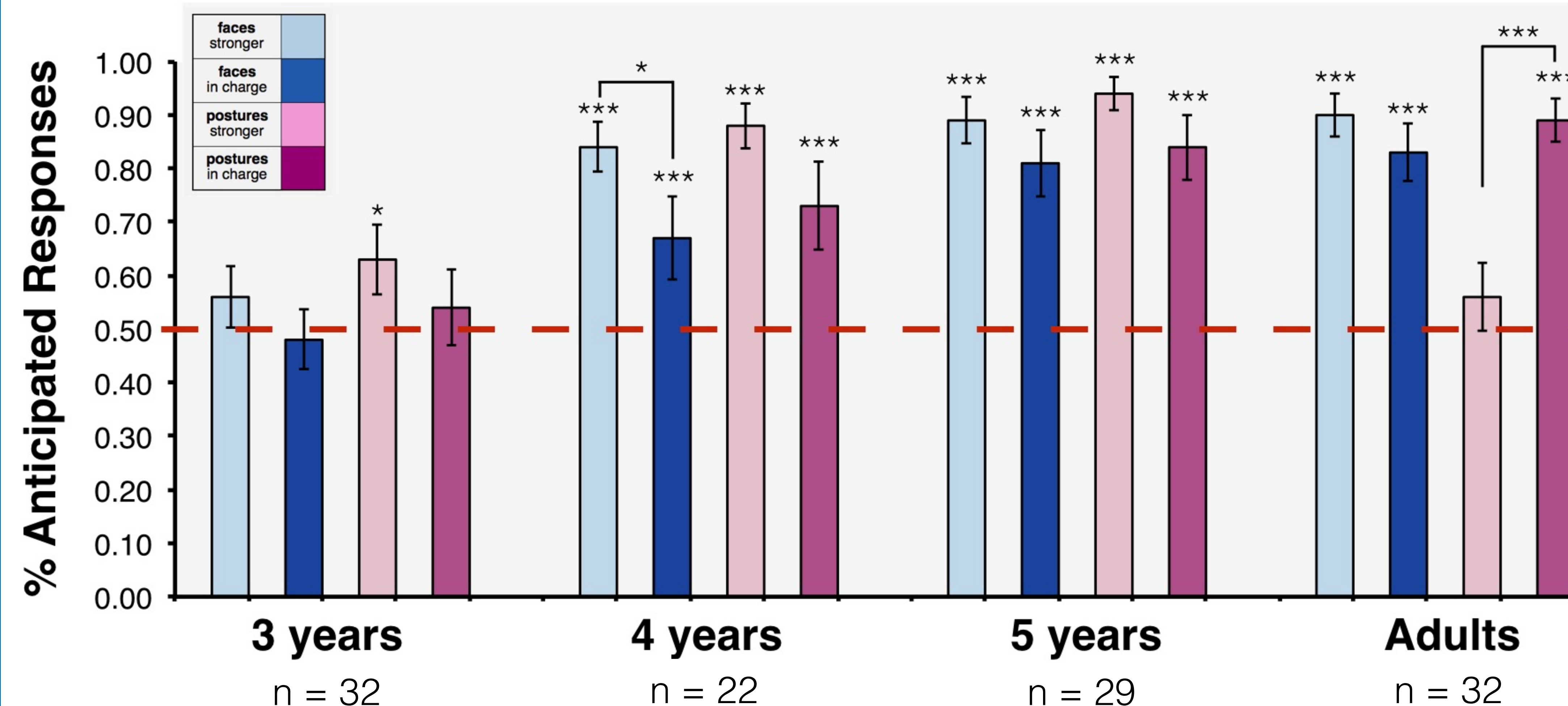


A prior norming study with adults established that the magnitude difference in "dominance" between each character was constant within and across stimulus categories.

20 trials total, 5 per Cue Type x Question Type block

Study 1 - Preliminary Results

Order of Question Type and Cue Type were counterbalanced across participants.



*p = .05, d < .5 ; ***p < .001, all d's > 1

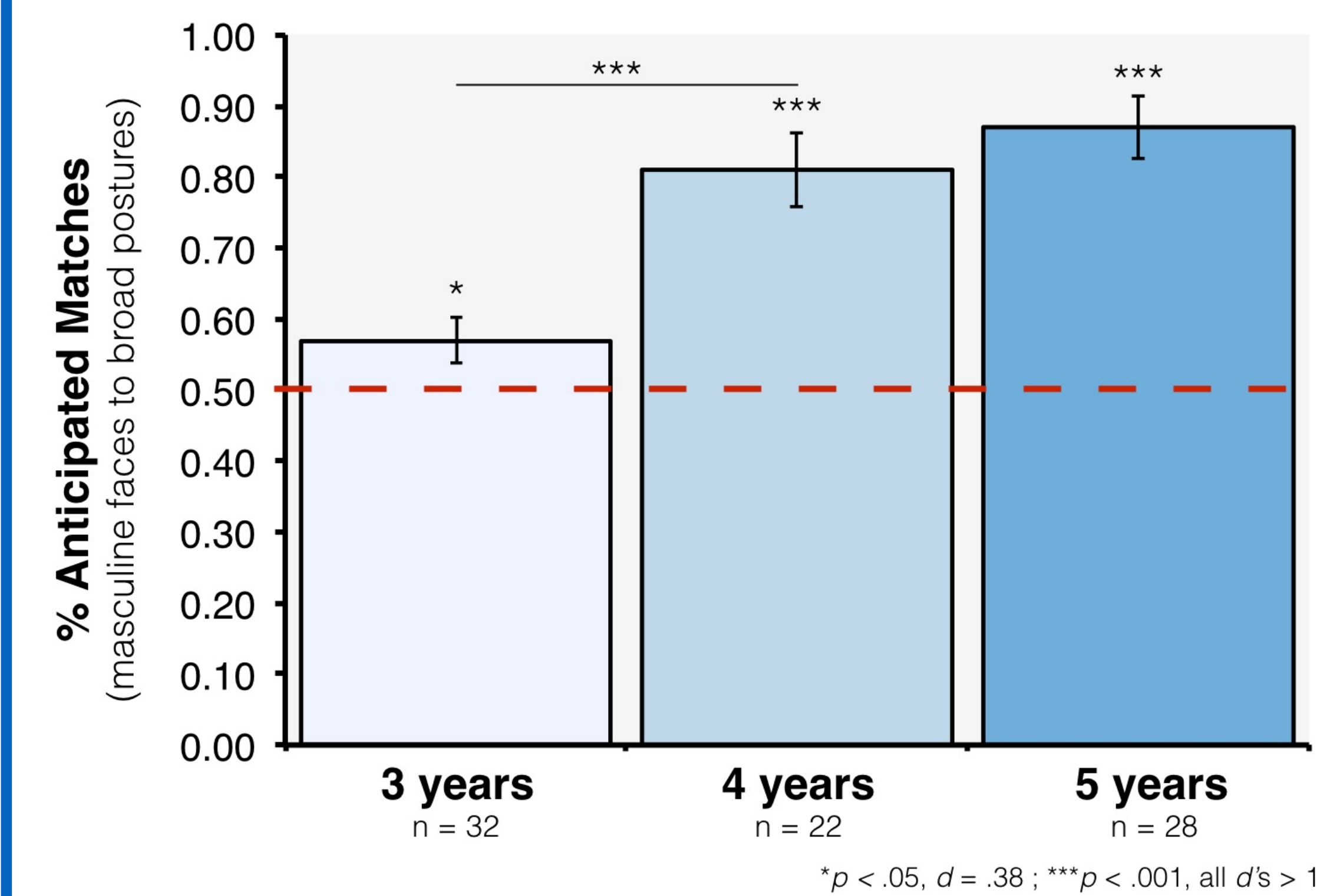
Study 2 - Matching Task



10 trials total

Location of powerful posture counterbalanced

Study 2 - Preliminary Results



*p < .05, d = .38 ; ***p < .001, all d's > 1

Conclusions

By at least 4, children attribute relative physical and social power from faces and postures.

Successful matching suggests that children detect correspondences between power-relevant information in faces and postures.

Adults’ responses suggest potential revision of specific cue/attribution associations.

References

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- Brey, E., & Shutts, K. (2014). Children Use Nonverbal Cues to Make Inferences About Social Power. *Child Development*, 86(1), 276–286. <http://doi.org/10.1111/cdev.12334>
- Lukaszewski, A. W., Simmons, Z. L., Anderson, C., & Roney, J. R. (2016). The role of physical formidability in human social status allocation. *Journal of Personality and Social Psychology*, 110(3), 385–406. <http://doi.org/10.1037/pspi0000042>