The Effects of Sex and Parenthood on Perceived Distances to Objects
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Introduction

- Does the literature and experimental evidence support this notion, or does this idea simply reflect a harmful stereotype?
- Could other individual difference variables more accurately capture differences in perception?

- It may be evolutionarily adaptive for parents to imagine a dangerous outcome when offspring have potential to be harmed [1]
- It's possible that this only generalizes to harm avoidant individuals, a trait-level individual difference measured by a subset of the multidimensional personality questionnaire [2]
- Harm avoidance may explain sex differences in exploration behavior [3]

Hypotheses

H1: Mothers will estimate that the baby is farther away from the actor
H2: Harm avoidance will better account for variance in vertical displacement than gender and parenthood
H3: These effects will be unique to harmful situations

Methodology

Independent Variables

- 4 within-subjects: Stimulus type, distance, directional plane, facing/not facing
- 3 between-subjects: Gender (41 M, 44 F), parenthood (35 P, 50 non-P), harm-avoidance [2]

Results: Vertical Judgments (H1 & H2)

A mixed, two-level regression model tested whether the effect of stimulus type (level 1 variable), varied as a function of gender and parenthood (level 2).
A second model tested whether the effect of stimulus varied as a function of harm avoidance.

Dependent Variable: Pixel displacement
Positive values indicate further from actor relative to initial location

Regression summary:
1. There was no difference in displacement based on stimulus (p = 0.08).
2. There was no difference in displacement based on sex (p = 0.89) or parenthood (p = 0.67) and no interactions with stimulus (H1 not supported).
3. Harm avoidant individuals placed the stimulus closer to the original location but higher than the average individual (p = 0.006, H2 supported, see Figure 2).

Conclusions & Open Questions

Our results do not support the predictions that gender and parenthood alter remembered location of objects. There were also no individual differences dependent on stimulus type. Harm avoidance, a trait-level individual difference, demonstrated the greatest influence on perceptual judgments across both stimuli.

Future directions:
- Testing manipulations of stereotype threat; does the gender of actor matter?
- If the effect of harm avoidance generalizes to all scenarios, is the effect meaningfully predictive? How pervasive is the effect?
- Does harm avoidance predict navigation behavior and spatial skills such as MRT? Does it alter how individuals visually guide their actions?

Results: Horizontal Judgments (H3)

Regression summary:
1. There was no difference in displacement based on stimulus (p = 0.32).
2. There was no difference in displacement based on sex (p = 0.80) or parenthood (p = 0.26) and no interactions with stimulus.
3. Harm avoidant individuals placed the stimulus further from its original location (p = 0.004, H3 not supported, see Figure 3).

References


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