

# Do Social Relationships Influence Distance Perception?

## Background

The closer we feel toward 2 acquaintances, the more passable the aperture between them appear and the less we need space to pass<sup>1</sup>

## Hypothesis

We should perceive a shorter distance between a disliked person and a wall (i.e., the aperture width) than between a liked person and a wall

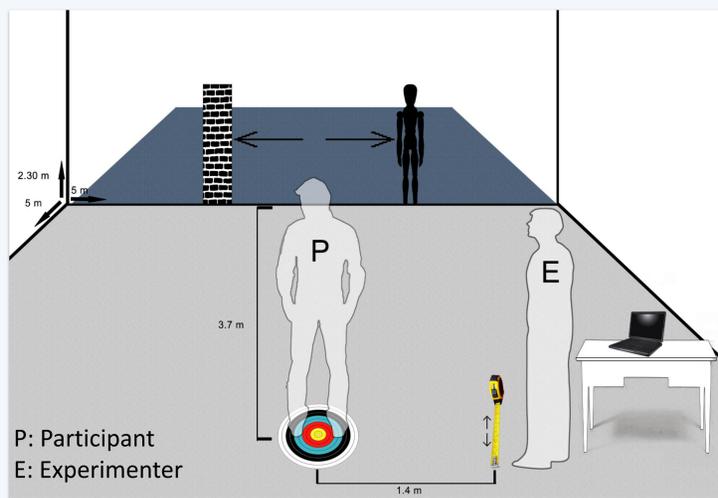
## Procedure

### 1. Mental imagery task

To think about a **liked** (n = 27) or a **disliked** (n = 29) person

### 2. Perceptual task

- To imagine passing between the wall and the chosen person represented by the human figure (see the Figure below)
- To stop the experimenter while he unrolled a tape measure when the length of the tape matches the aperture width
- To indicate if the aperture is wide enough to pass (i.e., passability judgments)

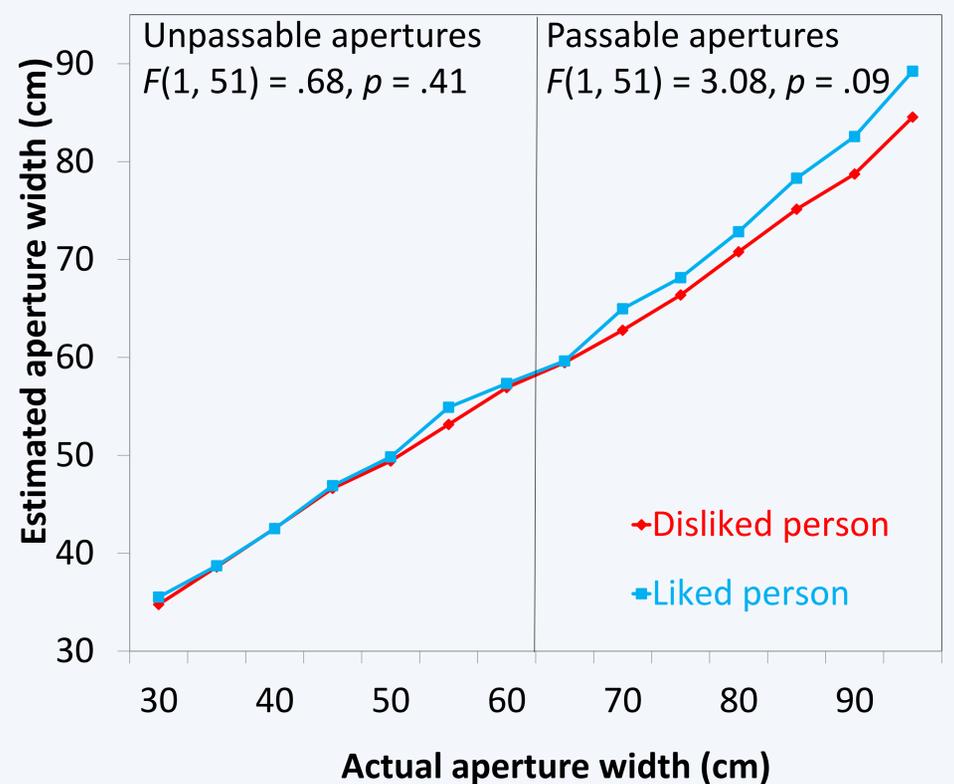


### 3. Post-experimental questionnaire

Suspicion and affective closeness

## Results

Social relationships\*Actual aperture width on Estimated aperture width:  $F(13, 663) = 2, p = .02$



### Affective closeness and passability judgments

**Disliked:**  $r = .64, p = .01$

**Liked:**  $r = -.42, p = .23$

### Suspicion about our hypothesis

**Liked < Disliked:**  $t(54) = 21.32, p < .001$

## Two alternative explanations

### Phenotypic account of perception<sup>2</sup>

Personal space invasion<sup>3</sup> → aperture widths perceived as shorter with disliked persons than with liked ones

### Demand bias account<sup>4</sup>

Suspicion about our hypothesis → response bias consistent with our hypothesis

## References

<sup>1</sup>Morgado, N., Muller, D., Gentaz, E., & Palluel-Germain, R. (2011). Close to me? The influence of affective closeness on space perception. *Perception*, 40(7), 877-879.

<sup>2</sup>Proffitt, D. R., & Linkenauger (2013). Perception viewed as a phenotypic expression. In W. Prinz, M. Beisert, & A. Herwig (Eds.), *Tutorials in Action Science*. MIT Press.

<sup>3</sup>Hayduk, L. A. (1983). Personal space: Where we now stand. *Psychological Bulletin*, 94(2), 293-335.

<sup>4</sup>Durgin, F. H., Baird, J. A., Greenburg, M., Russell, R., Shaughnessy, K., & Waymouth, S. (2009). Who is being deceived? The experimental demands of wearing a backpack. *Psychonomic Bulletin & Review*, 16(5), 964-969.

