Overreliance on **perceptual** compared to **value-based evidence** in decision-making

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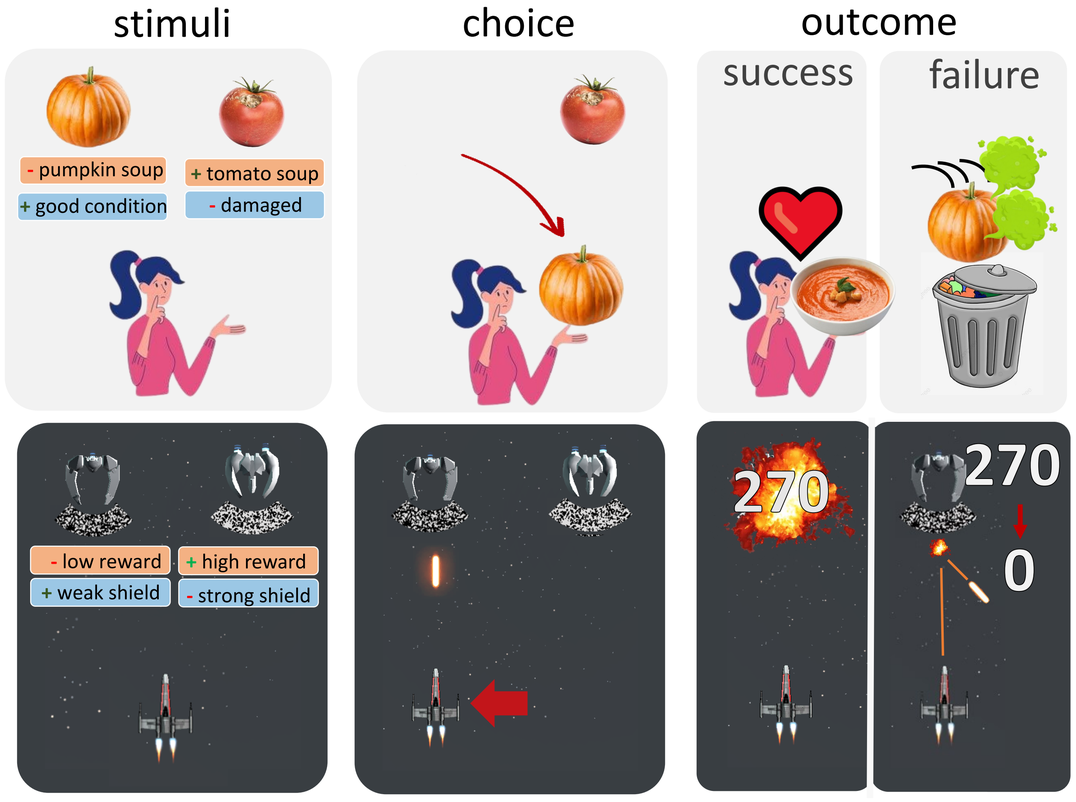
Play the game!

Design

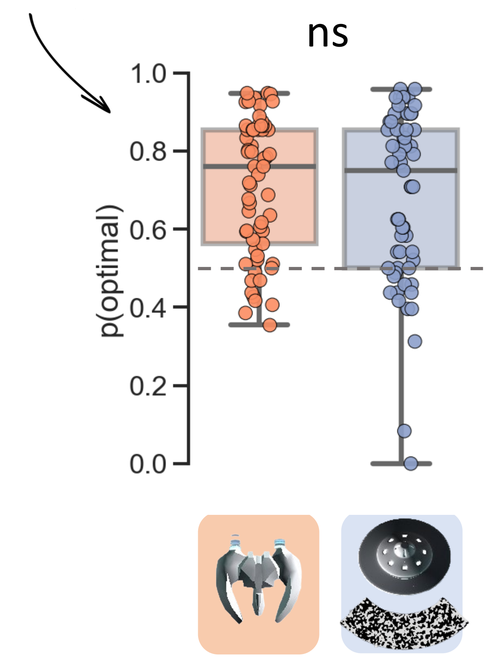
1



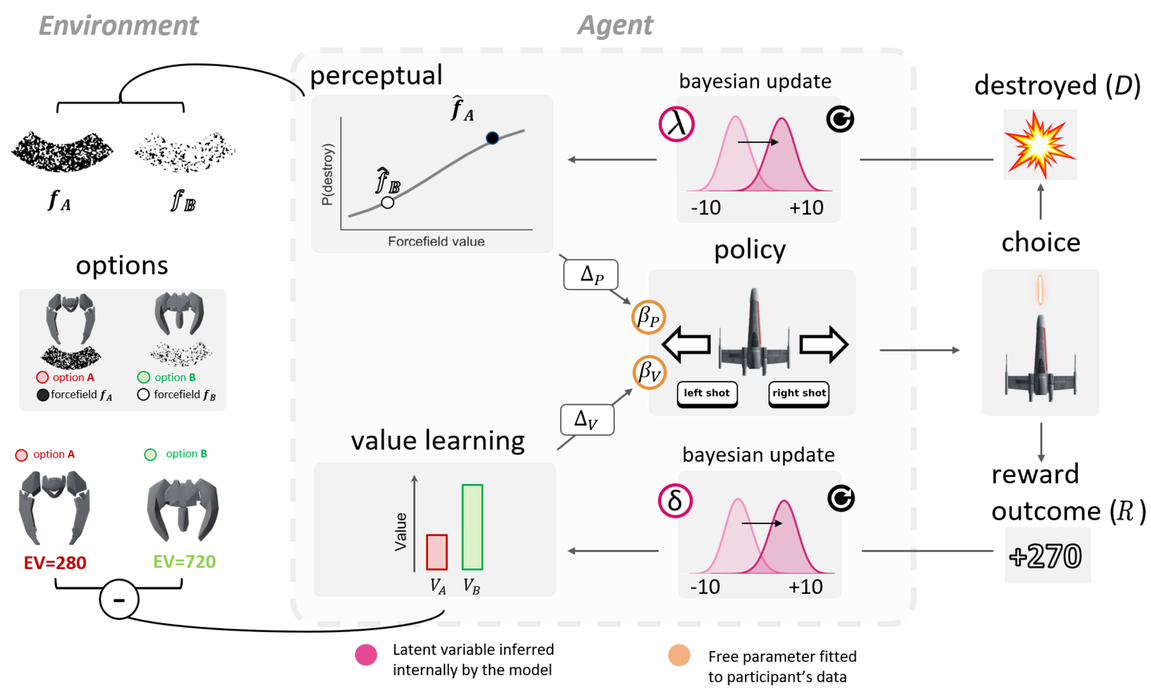
Training

2

Participants learn spaceship and shield values above chance, without significant differences between the two kind of cues

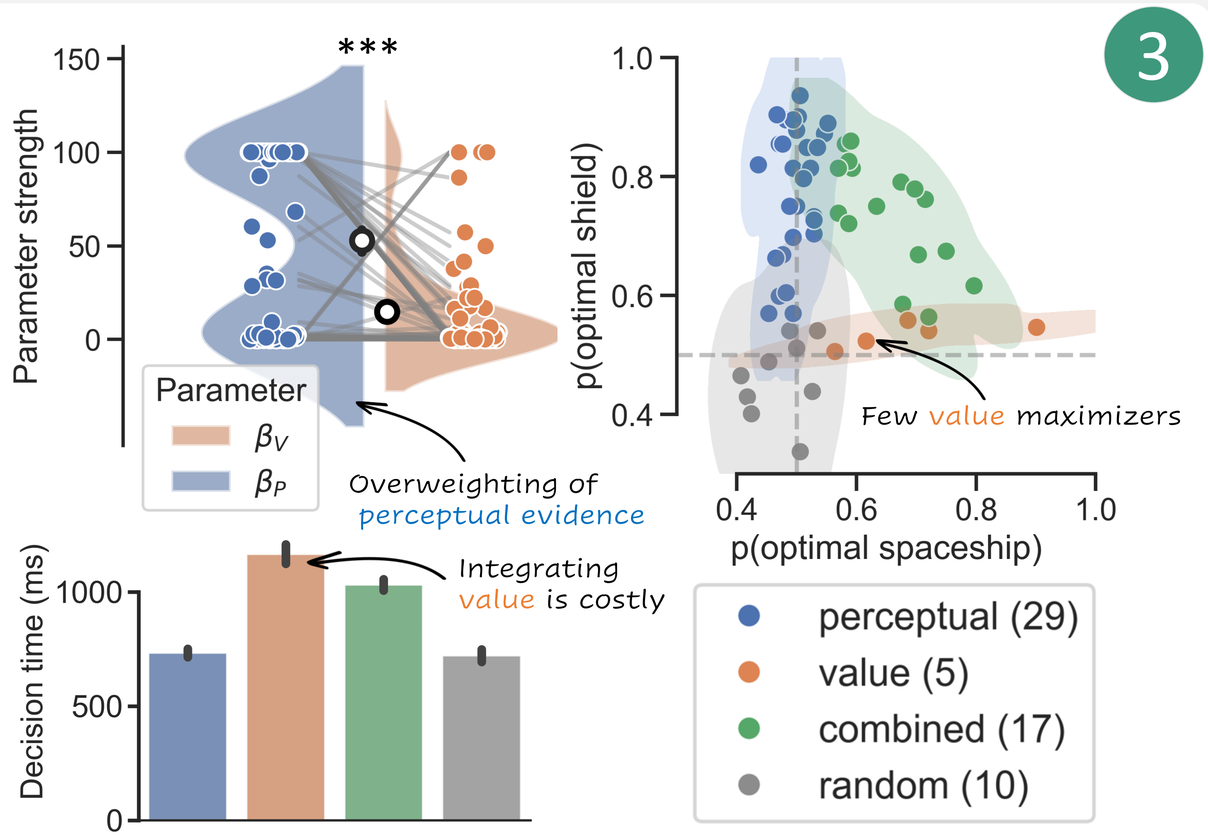


Model



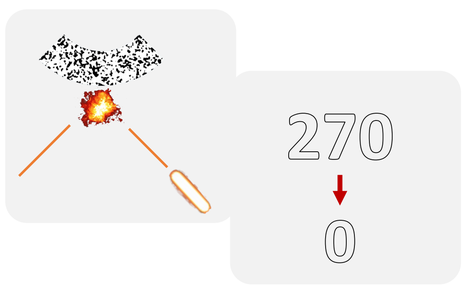
Results

3

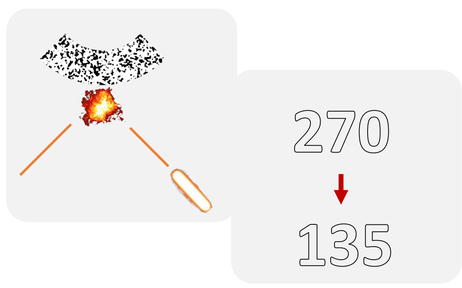


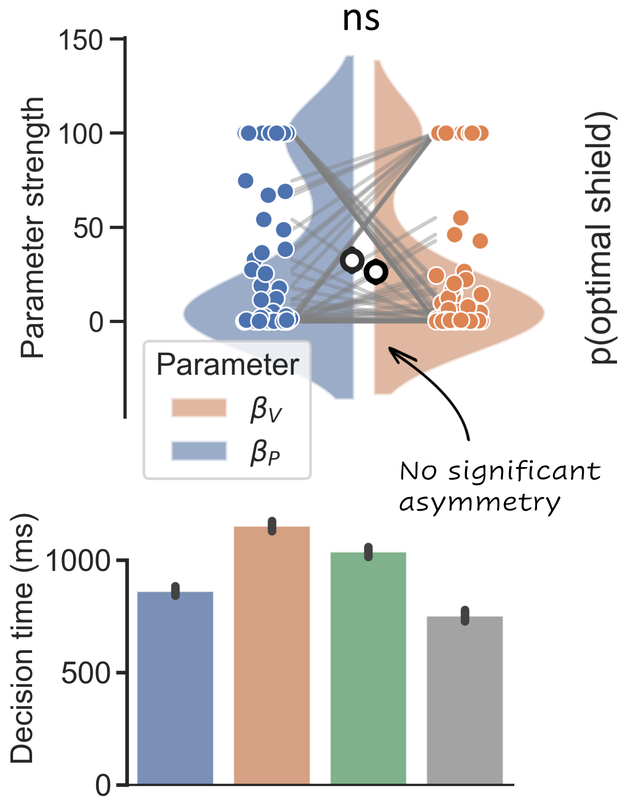
Results Exp. 2

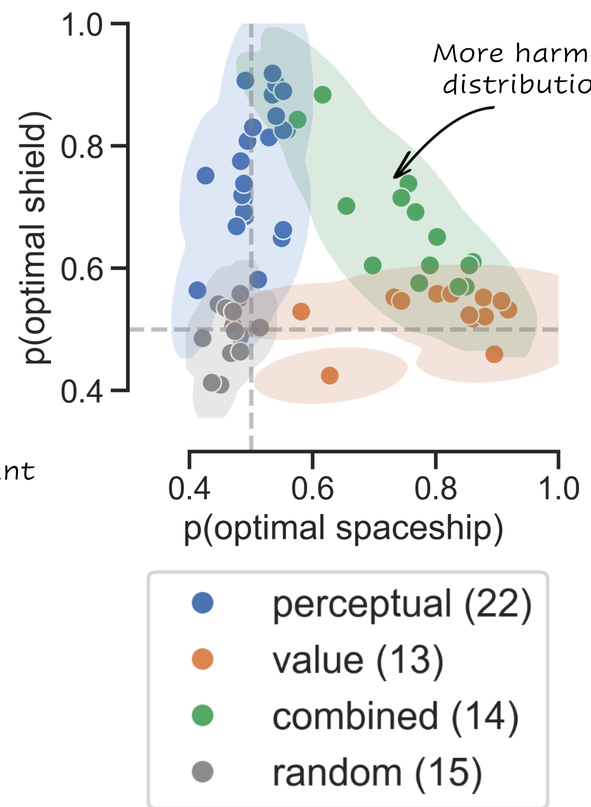
Exp. 1 – opportunity cost only



Exp. 2 – adding partial reward







4

Summary

5

- While participants perform **equally well** with value-based and perceptual cues during **training**, they tend to **prioritize** perceptual cues during the **main task** (Exp .1)
- Our **computational model** reflects this **bias**, shown as an **overweighting** of perceptual evidence ($\beta_P > \beta_V$) (Exp .1)
- Providing **partial rewards** when shields resist encourages participants to **maximize** spaceship use, opportunity cost feedback is not sufficient (Exp. 2)
- This **decision-maker** profile **distribution** will be used to analyze the neural chronometry of value and perceptual evidence **integration via MEG**. (Exp. 2)

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