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# Boosting Debiasing: Benefits of Animated Videos on Training Efficacy

Nina FRANIATTE<sup>1,2</sup>, Esther BOISSIN<sup>1</sup>, Alexandra DELMAS<sup>2</sup>, Wim DE NEYS<sup>1</sup>

<sup>1</sup>LaPsyDÉ, CNRS, Université Paris Cité, Paris, France

<sup>2</sup>Onepoint, R&D Department, Bordeaux, France

@franiatte.nina@gmail.com X NinaFraniatte

## BACKGROUND

Recent debiasing studies showed that intuitive and deliberate reasoning performance can be boosted with short text training [1][2].

However, these interventions may be limited in their ability to reach a broader audience. Videos provide a dynamic and appealing format that may increase motivation and participation.

Here, we examined whether a video-based debiasing training can further boost reasoning performance.

## METHOD

### Two-response paradigm

Reasoners give one intuitive and one deliberate response in each trial [3].

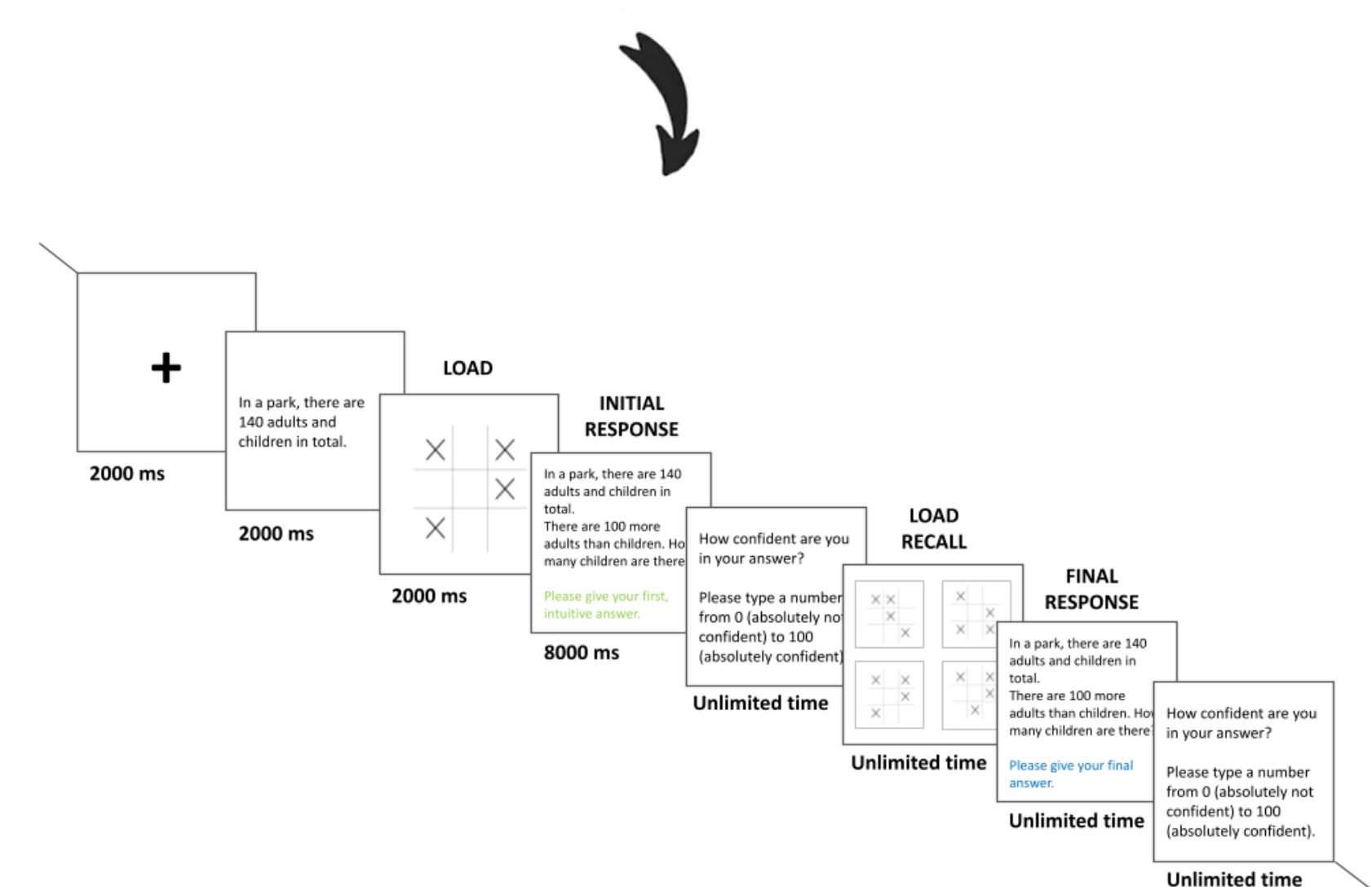


Fig.1. Example of a two-response trial with a bat-and-ball problem.

### Material & Participants

- Study 1 (n=150): Bat-and-ball task
- Study 2 (n=150): Base-rate neglect task
- Study 3 (n=150): Conjunction fallacy task

### Training design

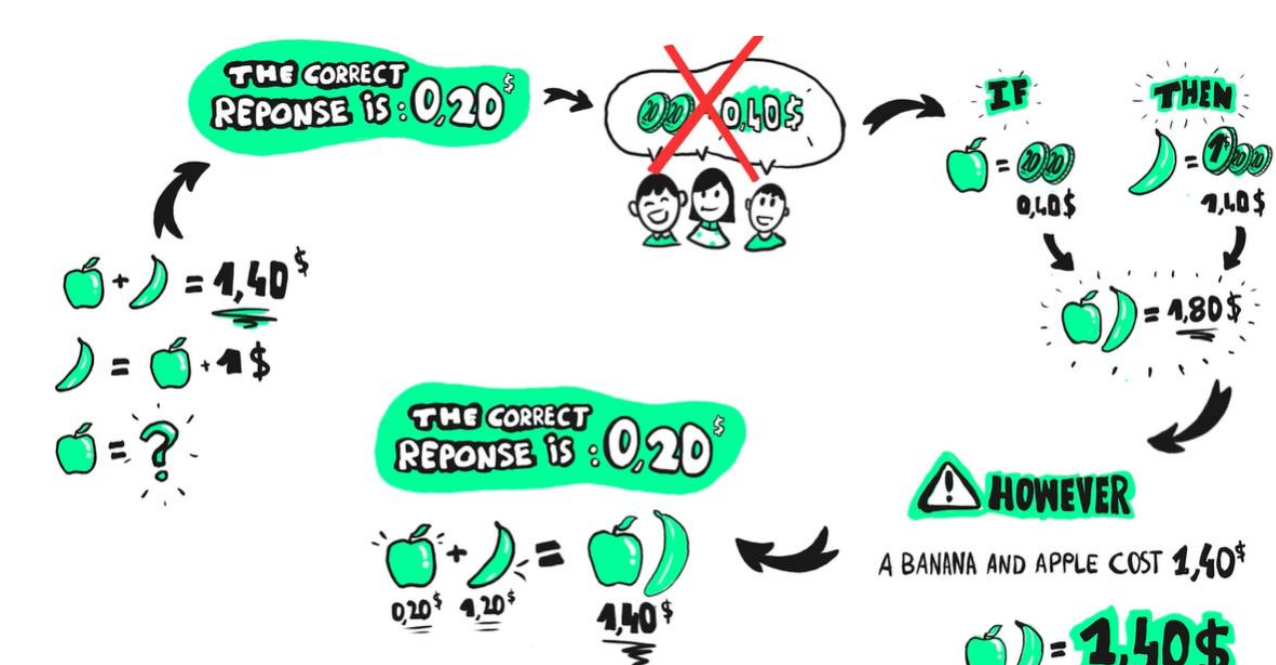
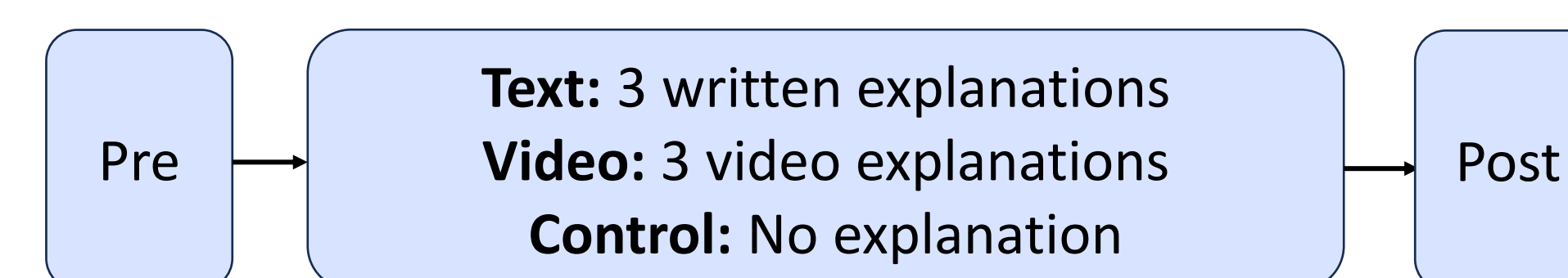


Fig.2. Screenshot of an explanation given in the bat-and-ball video training.

## RESULTS

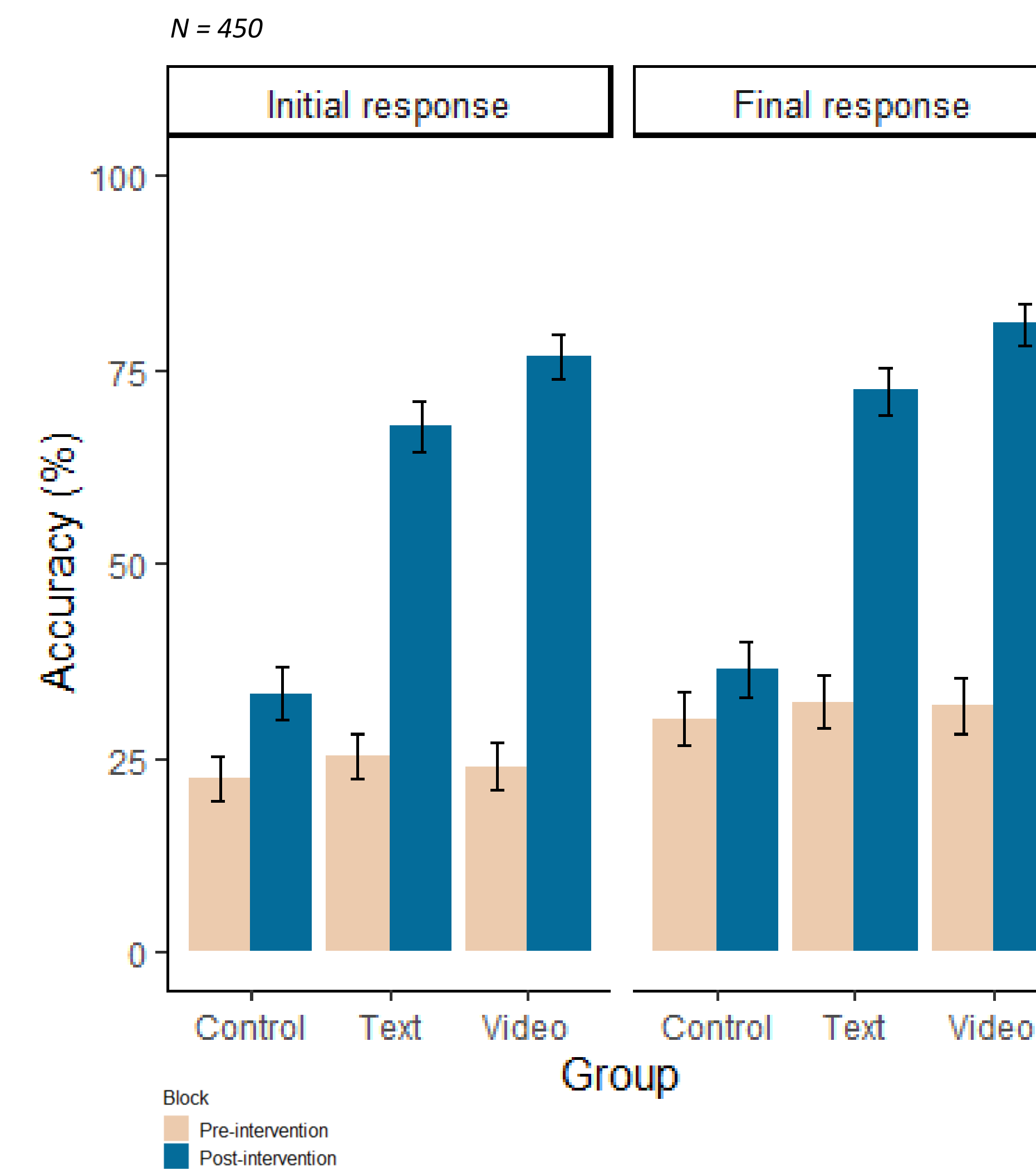


Fig.3. Average initial and final accuracy on conflict items for control, text, and video groups, for all tasks. Error bars are standard errors.

➡ We can further boost intuitive reasoning with videos!

**Text and video training significantly improved accuracies for all tasks:**

- ✓ Initial responses increased by **42 points** (text) and **53 points** (video)
- ✓ Final responses increased by **40 points** (text) and **49 points** (video)
- ✓ Among biased participants, **62%** started giving correct responses after the video interventions and **52%** after the text interventions

## TEST YOURSELF!

**Cogitum** is an online platform where you can test your reasoning abilities and enjoy the debiasing videos

### Two main goals

- ✓ Make the videos accessible to a broader audience
- ✓ Collect data to assess whether our results can be replicated on a larger scale

Scan me and try it!



## REFERENCES

- [1] Boissin, E., Caparos, S., Raelison, M., & De Neys, W. (2021). From bias to sound intuiting: Boosting correct intuitive reasoning. *Cognition*, 211.
- [2] Franiatte, N., Boissin, E., Delmas, A., & De Neys, W. (2024). Boosting debiasing: Impact of repeated training on reasoning. *Learning and Instruction*, 89, 101845.
- [3] Thompson, V. A., Prowse Turner, J. A., & Pennycook, G. (2011). Intuition, reason, and metacognition. *Cognitive Psychology*, 63(3), 107-140.