

When do human infants and pet dogs expect **contact** in transport events?

The role of animacy in causal expectations

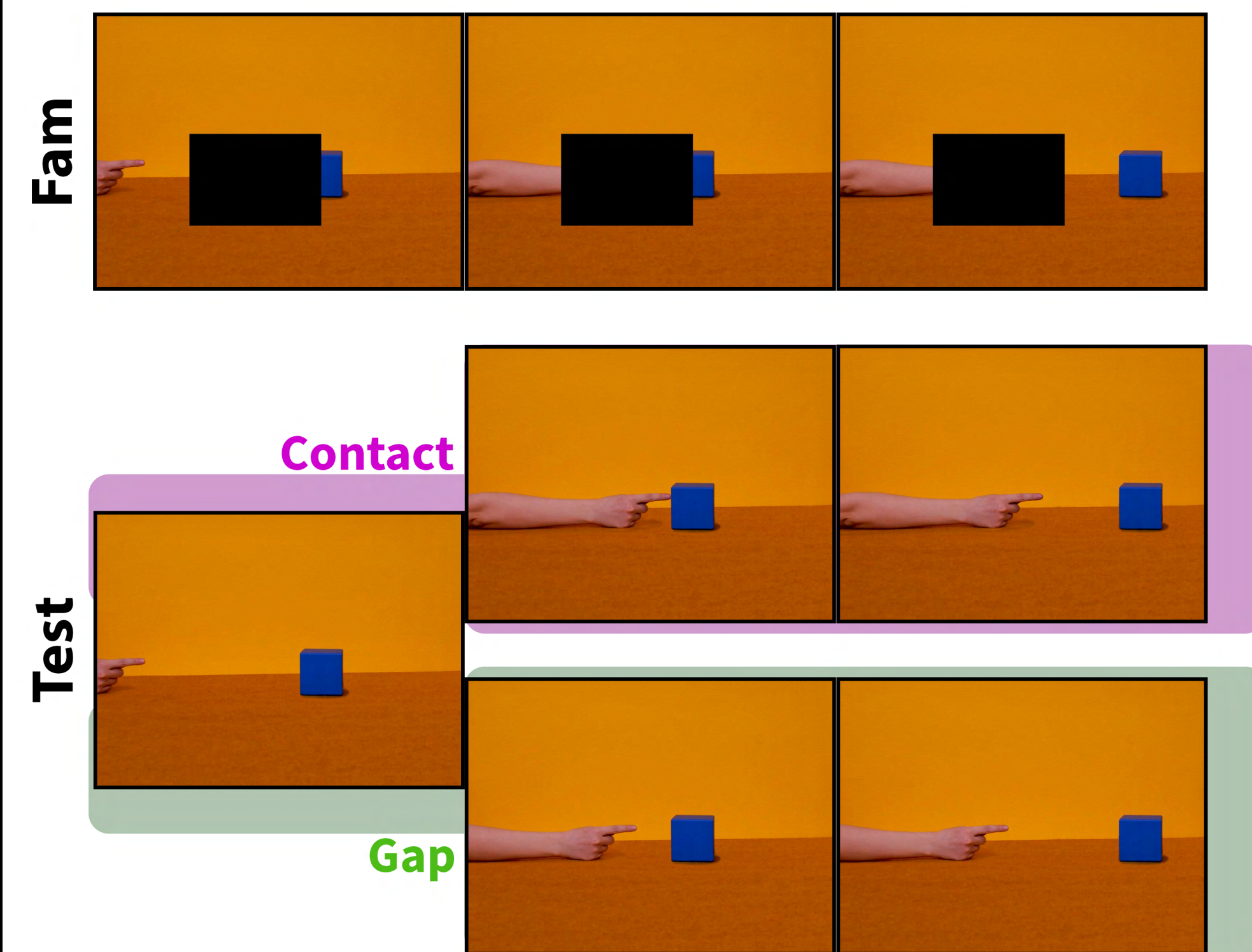
Beyza G. Ciftci¹, Gergely Csibra^{1,2}, Christoph Völter^{3,4}, Jonathan F. Kominsky¹

¹Central European University, ²Birkbeck, University of London, ³Messerli Research Institute, Vetmeduni Vienna, Medical University of Vienna and University of Vienna, ⁴Max Planck Institute for Evolutionary Anthropology

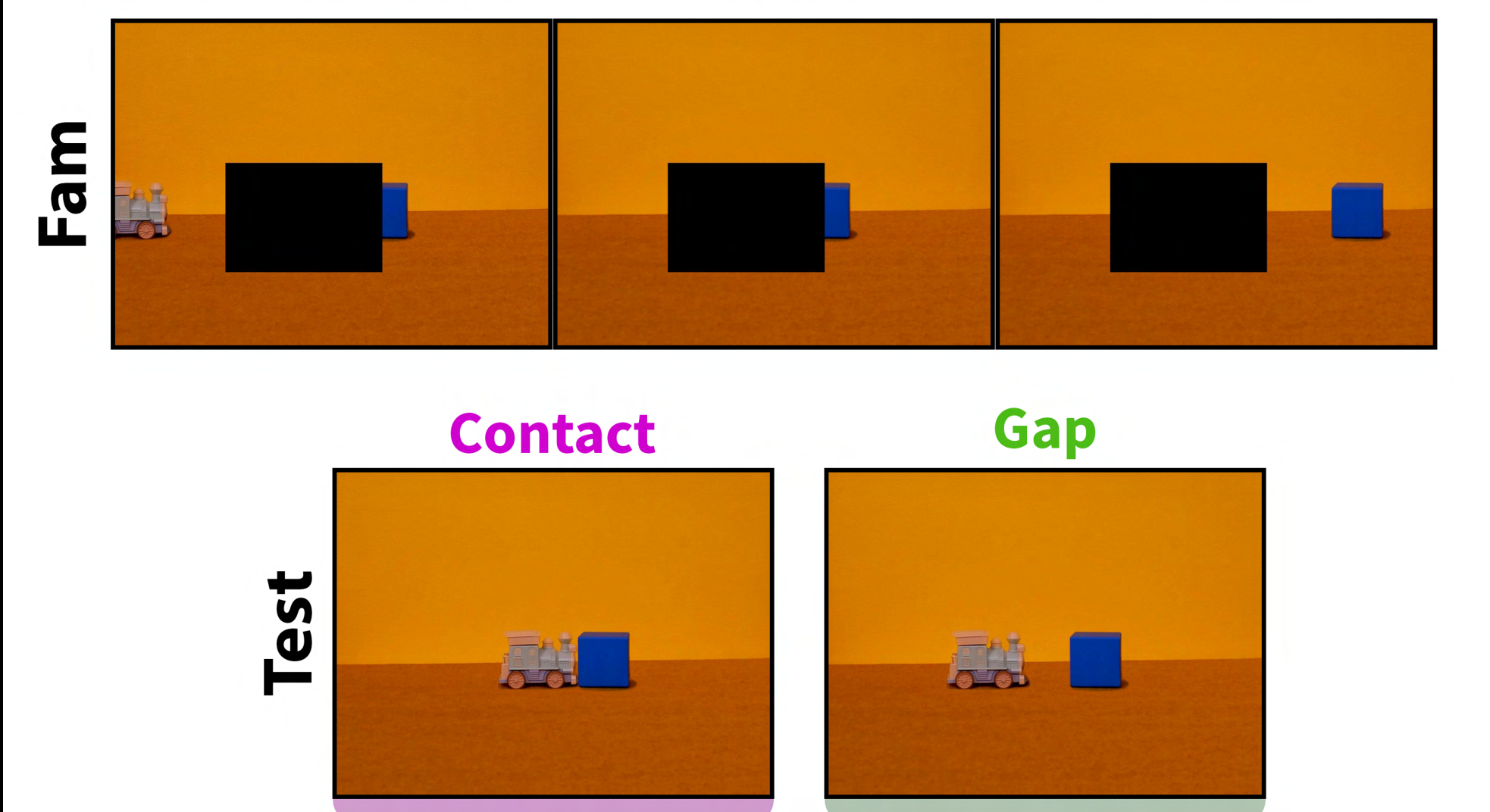
General Question: What do human infants and pet dogs infer about transport events based on the animacy of the causal agent?

Exp. 1

Hand condition



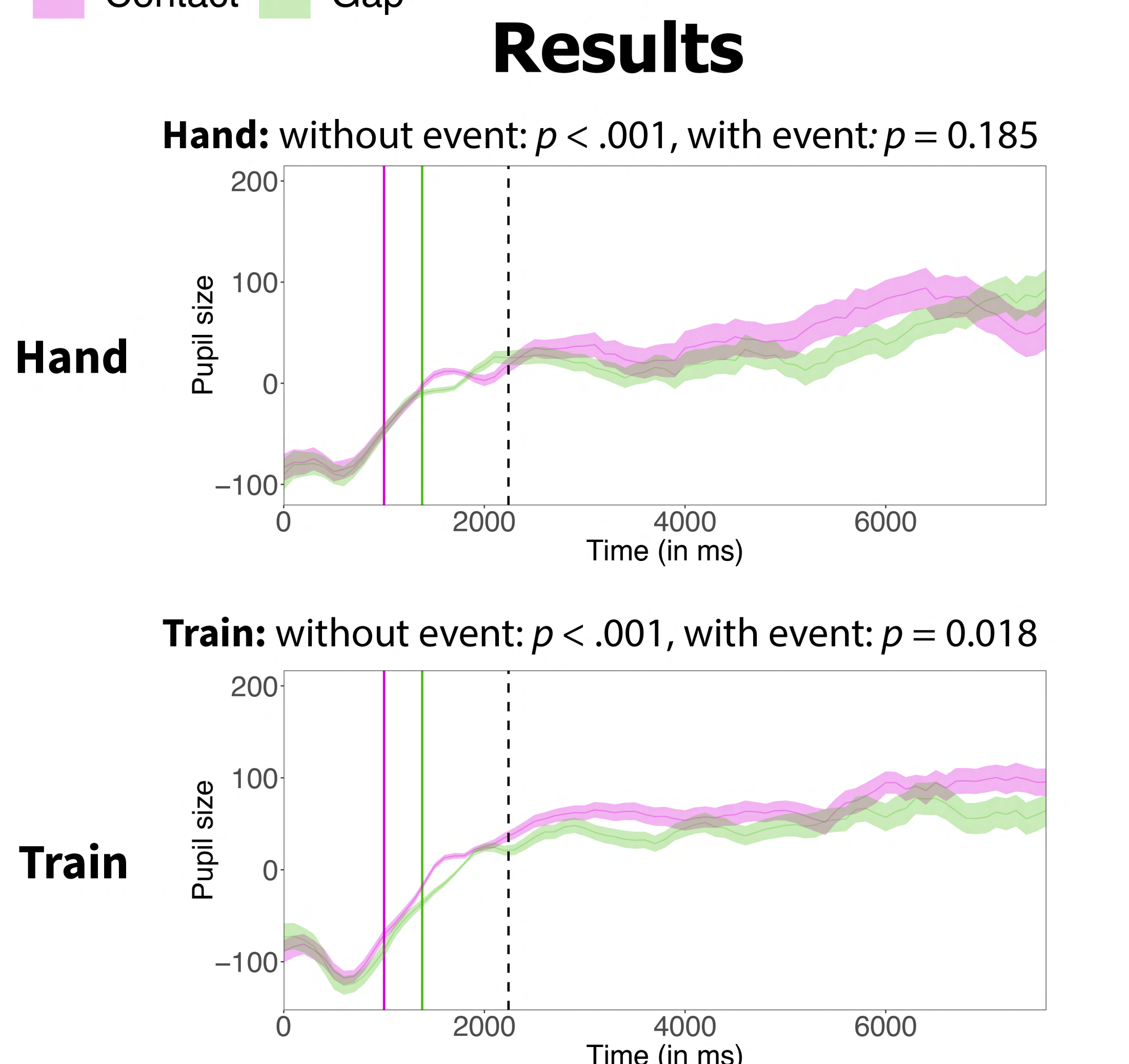
Train condition



Aim: To replicate the findings [1, 2] that show that 8-month-old infants infer **contact** between two objects after being familiarized with occluded transport events.

Prediction: Greater pupil dilation in **gap events** compared to **contact events** (regardless of the animacy of the causal agent).

Participants: 40, 8-month-old infants



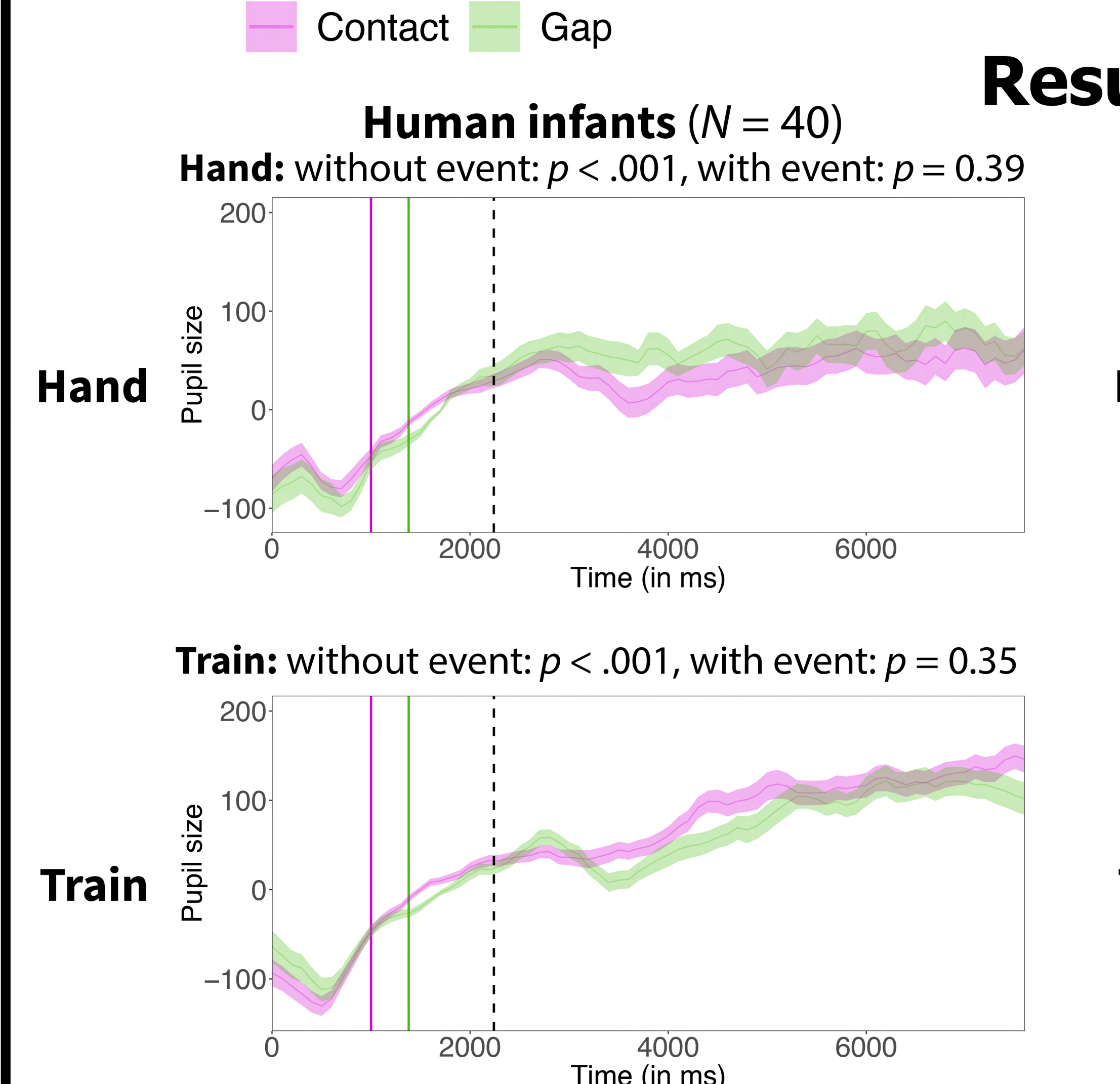
• Infants' pupil dilated more in **contact events** compared to **gap events**

Exp. 2

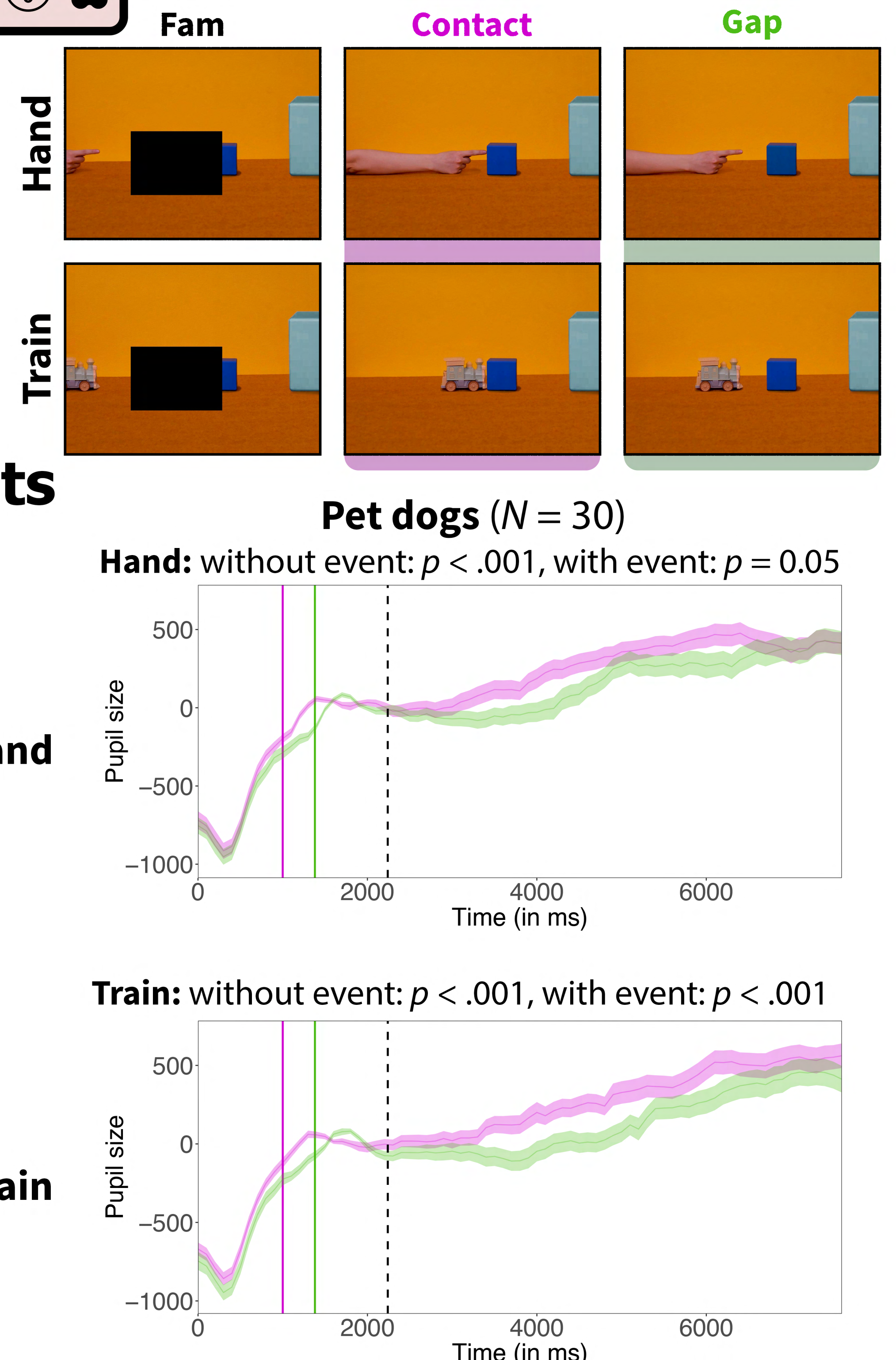
Background:

- 7-month-old infants do not expect **contact** when one person causes another person move [3].
- When an object is self-propelled, 10- and 12-month-old infants do not infer a hidden agent causing its movement [4].

Aim: To explore whether the unexpected pupil dilation results in Experiment 1 are due to the blue cube stopping on its own.



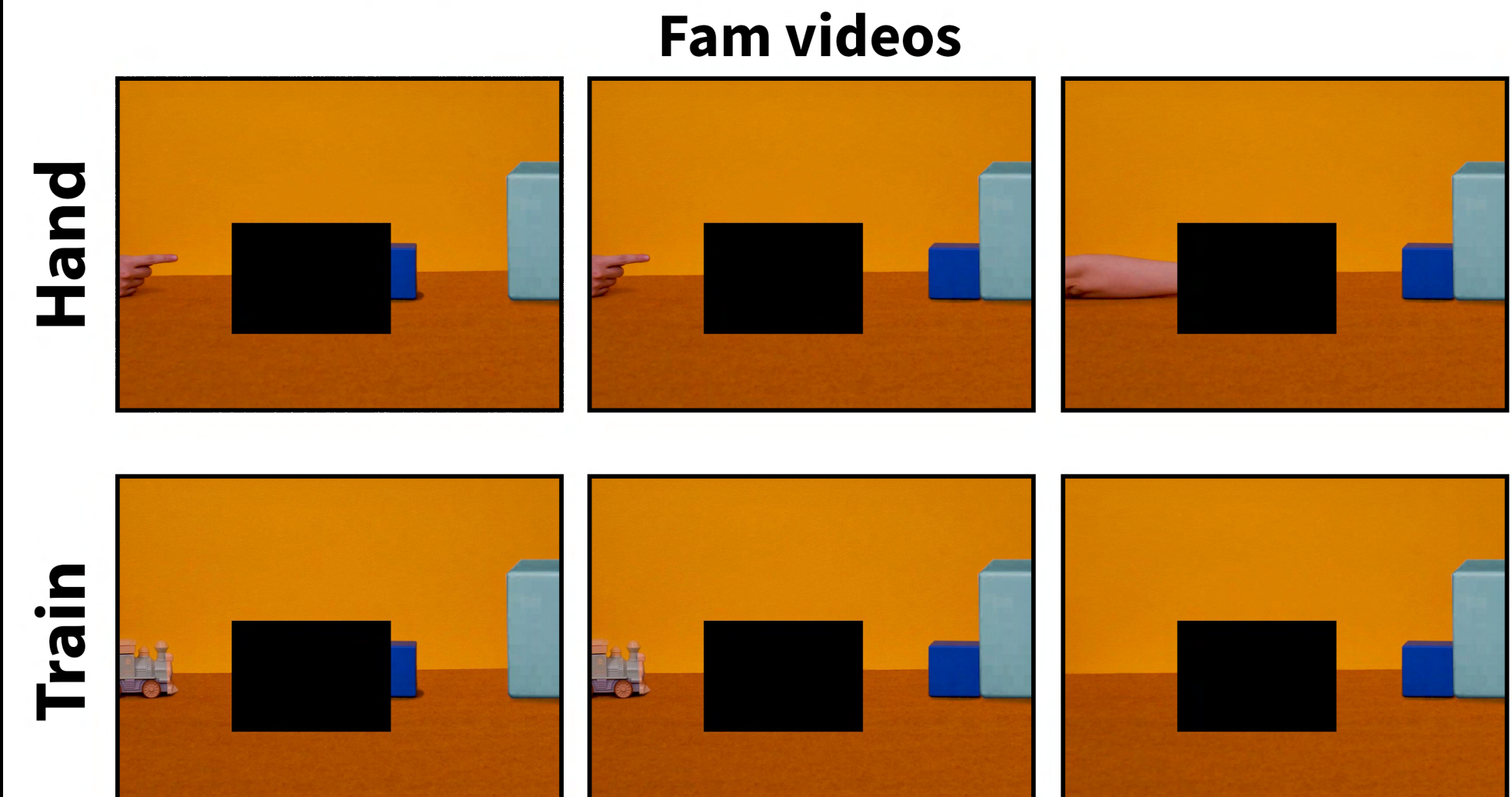
- **Hand:** Greater pupil dilation in **gap events** compared to **contact events**.
- **Train:** Greater pupil dilation in **contact events** compared to **gap events**.



- Dogs' pupil dilated more in **contact events** compared to **gap events** in both agent conditions.

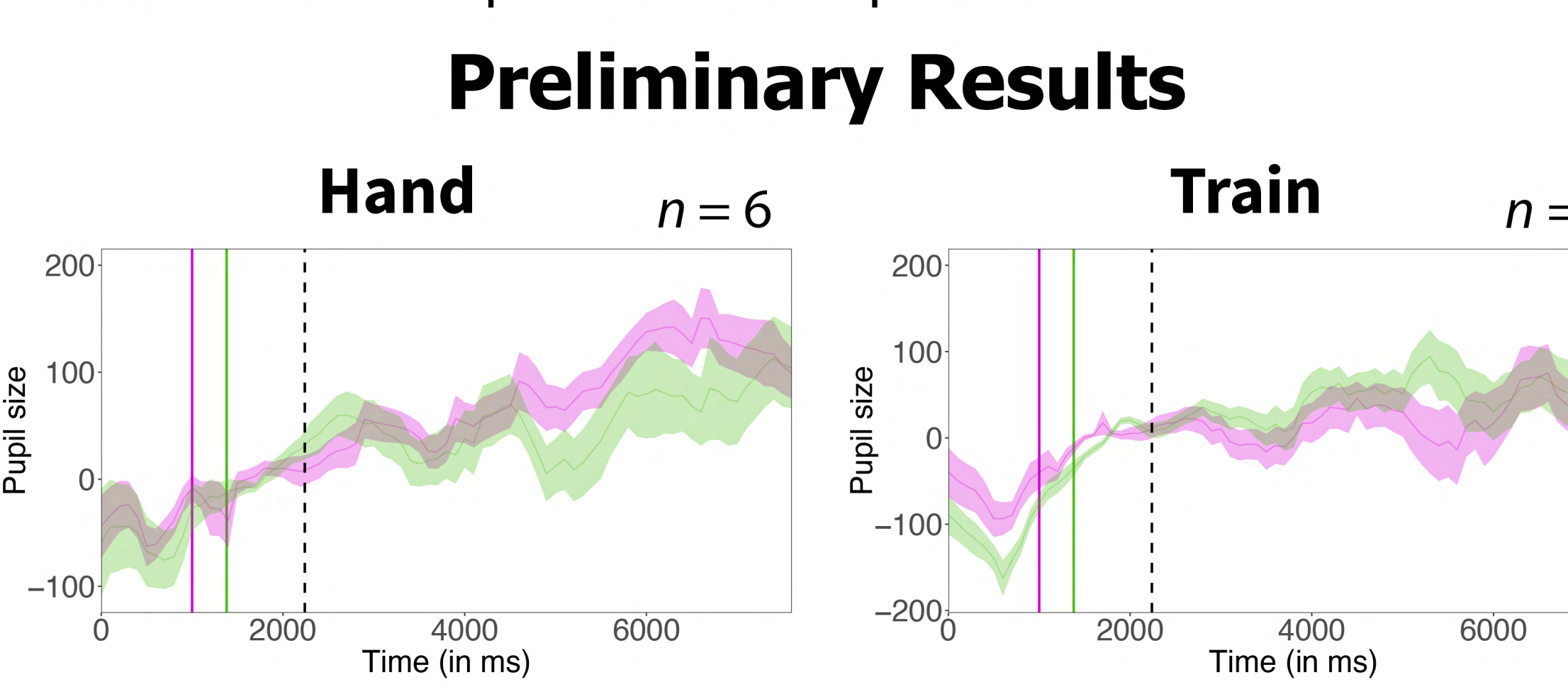
Exp. 3

Background: For a causal interpretation to emerge in launching events, infants need to experience habituation or familiarization events [e.g., 1, 5].



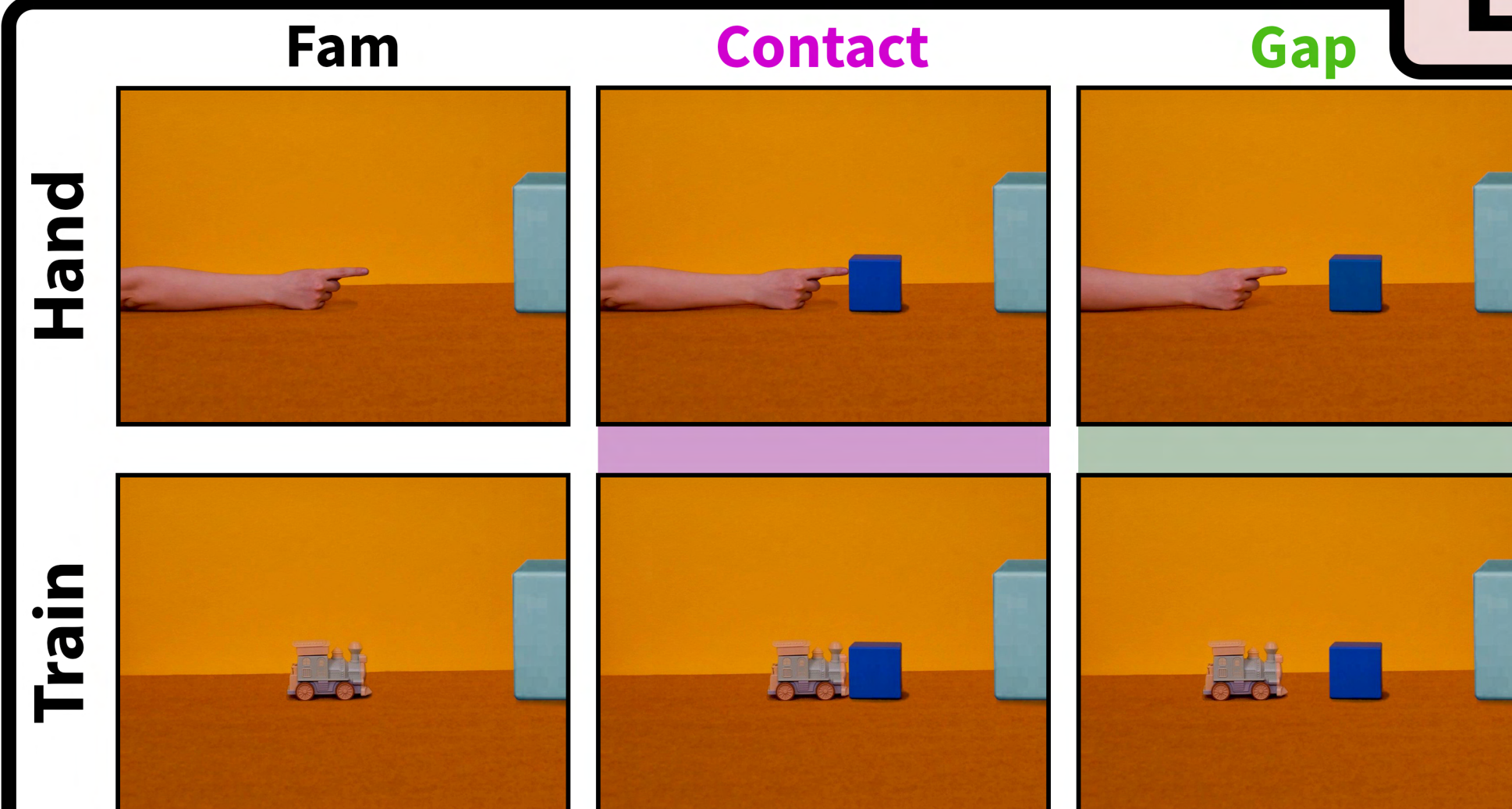
Prediction:

- If the pupillary response in Experiment 2 is inference-based: No difference between **contact** and **gap** or **contact** > **gap**
- If not: The same pattern as in Experiment 2



- Discussion**
- 1) The perception of the causal patient as animate influenced infants' **contact** inferences.
 - 2) Infants showed different pupillary responses to the train and hand conditions when an obstacle was added.
 - 3) We do not know what underlies pet dogs' inferences (if they make any) from occluded familiarization videos.

Exp. 4



Background: After being familiarized with the motion of a single rolling ball, pet dogs' pupil dilate more during **gap events** compared to **contact events** [6].

Prediction:

- If the pupillary response in Experiment 2 is inference-based: No difference between **contact** and **gap** or **gap** > **contact**
- If not: The same pattern as in Experiment 2

- References**
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