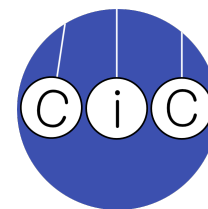


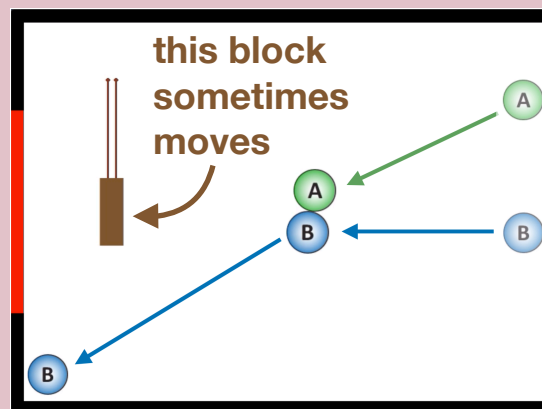


What explains causal judgments? Counterfactual versus hypothetical simulations



we do! Tobias Gerstenberg & Jingren Wang

What's the **question**?

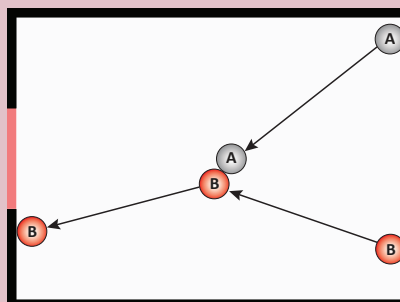


Did **A** prevent **B** from going through the gate?

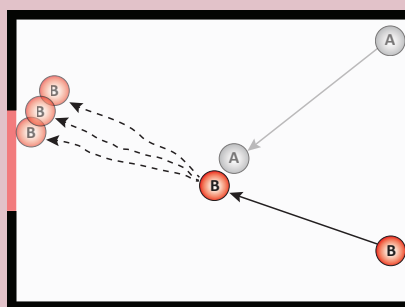
What does the **model** say?

The **counterfactual** simulation model of causal judgment

People compare what actually happened ...



... with what **would have happened** if the cause hadn't been there.

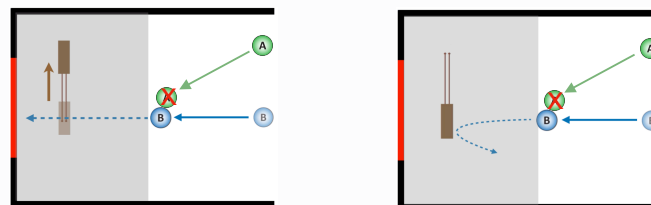


Reviewer #2: But counterfactuals and hypotheticals don't come apart here!

So maybe **hypotheticals** are enough?

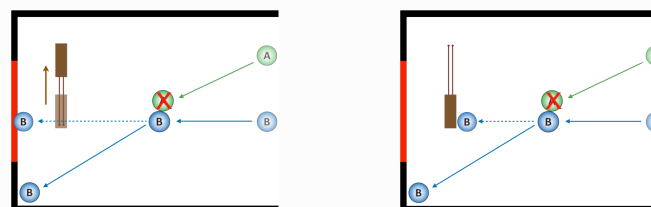
Hypothetical

What would happen if **A** wasn't there?

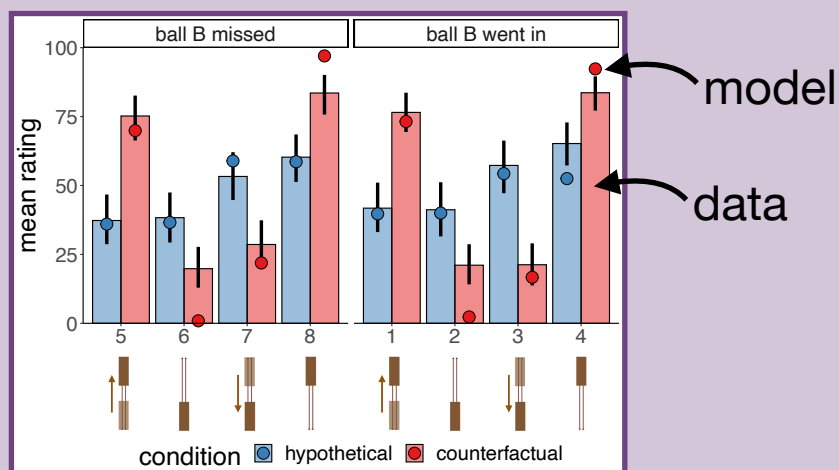


Counterfactual

What would have happened if **A** hadn't been there?

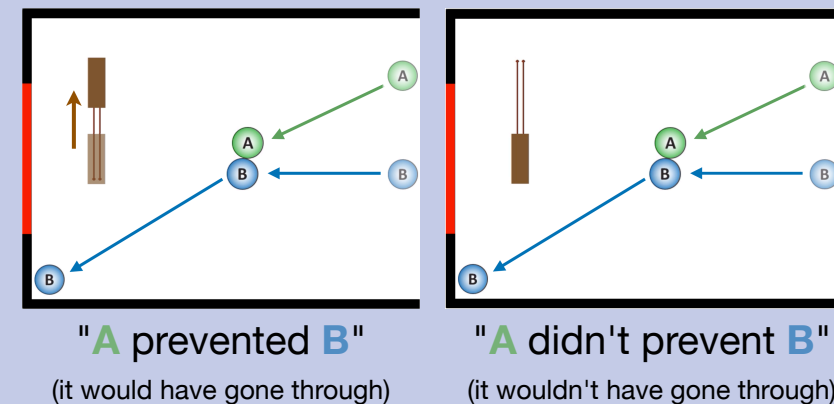


Simulation judgments and model predictions

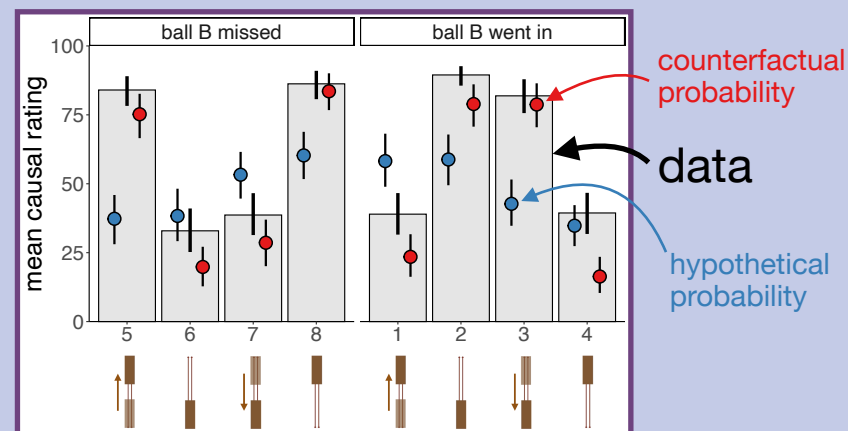


The model captures participants' **hypothetical** and **counterfactual** judgments well.

What do **people** say?



Causal judgments and model predictions



Causal judgments are predicted by **counterfactuals** and not by **hypotheticals**.

References

- Gerstenberg, T., Peterson, M. F., Goodman, N. D., Lagnado, D. A., & Tenenbaum, J. B. (2017). Eye-Tracking causality. *Psychological Science*.
- Gerstenberg, T., Goodman, N. D., Lagnado, D. A., & Tenenbaum, J. B. (2021). A counterfactual simulation model of causal judgments for physical events. *Psychological Review*.

