System 2 and Cognitive transparency: Deliberative reasoning helps to justify sound intuitions

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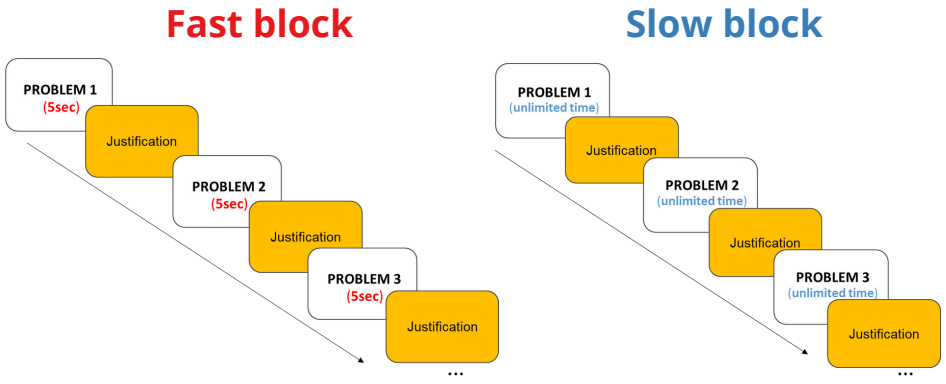
BACKGROUND

- Deliberative 'System 2' reasoning is classically thought to **correct** erroneous intuitions and biases [1-3].
- People can sometimes **generate correct responses intuitively** to reasoning problems, but will still engage in additional deliberation if allowed to [4].
- We tested the proposed **justificative function** of deliberation:
  Does deliberation allow individuals to find justifications for their decisions?

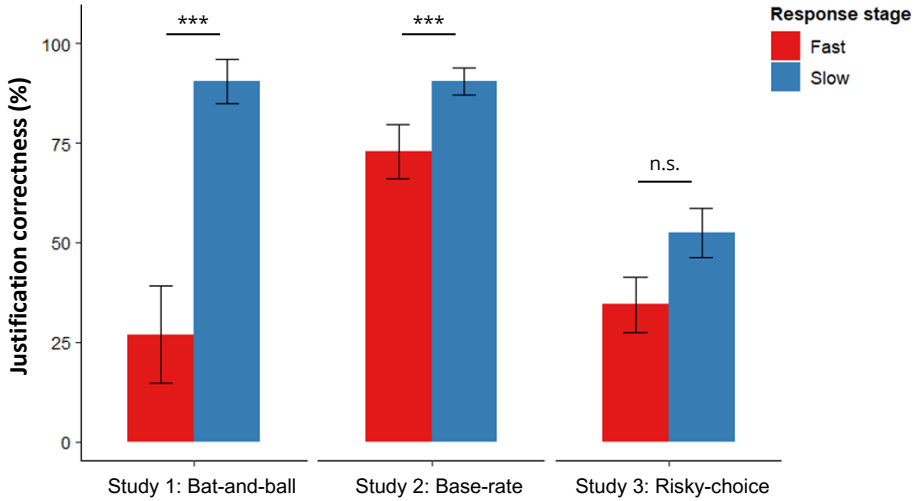
METHODS

- **3 studies** (N_{total} = 300): Bat-and-ball, Base-rates and Risky-choice economic problems
- **Two-block paradigm**:
  - Fast block trials: response under **time constraints** + justification (unconstrained)
  - Slow block trials: response **without constraints** + justification (unconstrained)
- Justifications considered correct when referring to the appropriate logical principle.



RESULTS

Mean percentages of correct justifications
(for correct responses)



- **Sound justifications were more likely after deliberative correct responses** than after intuitive correct responses, in two out of three tasks.

***: p < .001
n.s.: p = .01

CONCLUSION

- Justification are more accurate after deliberative responses than intuitive ones.
- Deliberation, or System-2 thinking, helps us **find reasons to justify** our intuitions and decisions.
- Rather than merely correcting erroneous intuitions, deliberation may serve to make our intuitions "**cognitively transparent**"—fully accessible to ourselves.

References

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