Human-AI Cooperation: Leveraging AI Norm Reinforcement in a Public Goods Game

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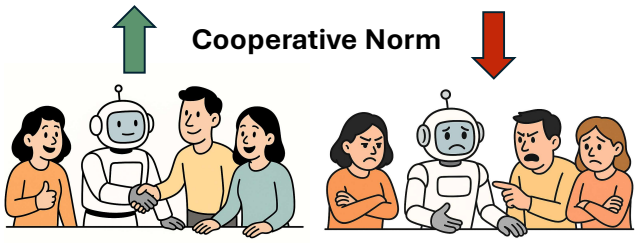
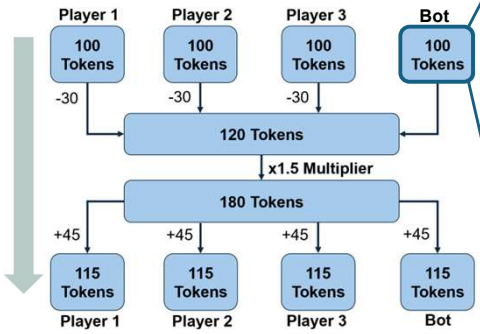
Research Question

How does the implementation of AI agents reinforce or erode cooperative norms in group settings?



Public Goods Game



2x3 Design

Human vs AI

x

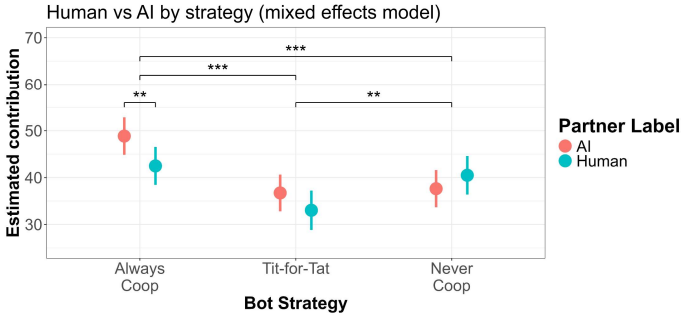
- Always coop
- Tit-for-tat
- Never coop

Rand. Control Trial
Participants 238

Our experiment shows **AI teammates can spark as much and sometimes more cooperation** than humans

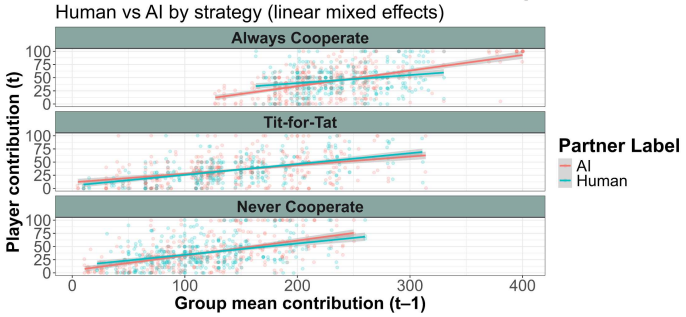
Estimated Contributions in Public Goods Game

Human vs AI by strategy (mixed effects model)



Round Contribution vs. Last-Round Group Mean

Human vs AI by strategy (linear mixed effects)



- **Algorithm Preference:** AI partners match human partners in most cases, yet unconditional cooperative AI triggers increased cooperation.
- **Go big or go rogue:** Unconditional cooperators inspire cooperation, while Tit-for-Tat elicits less than non-cooperators.
- **Group Influence:** People normatively adjust to prior group contributions across labels, with strategy driving the strength.

Cooperation follows actions. Design AI for strategy, not identity.

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