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# Releasing the brake: How disinhibition frees people and facilitates social change

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## INTRO

**Question:** What role do psychological processes provoked by social context characteristics play in diffusion?

**Reasoning:** Anonymity liberates individuals from the need to make a good impression on others (e.g. by appearing consistent, by conforming), which enables them to adopt innovations more easily and can accelerate diffusion at the societal level.

**Hypothesis:** Anonymity facilitates innovation diffusion.

## METHODS

### Experimental game:

- Multi-round group game (groups of 8-16 people).
- Participants in each group have to reach a consensus on which new product to release by, in each round:
  1. choosing one of the two new products (Fig. 3),
  2. receiving feedback about what everyone in the group chose in the present round (Fig. 4).
- Game continues until consensus reached or max 24 rounds.
- Natural diffusion process induced through confederates (>25% of each group).
- Participants monetarily incentivized for exhibiting consistency, conformity, and coordination.
- Group-level manipulation: Anonymity vs identifiability.
- Sample: n = 123 (88 participants, 35 confederates); 10 experimental groups (5 in each condition).

### Agent-based model (ABM):

- Agent-level social payoff function that determines the behavior of individual agents in the model.
- The payoff function mirrors key social motivations in individual decision-making during a diffusion process and is parametrized using the experimental data.

## RESULTS

- Anonymous groups reach consensus faster in the experiment (Fig. 1) due to more people exploring
- In the ABM simulations, the diffusion time of identifiable and anonymous groups diverge rapidly with increasing group size (Fig. 5 and Fig. 6)

Anonymity enables individuals to explore new alternatives, in turn causing groups to reach tipping points and adopt innovations faster.

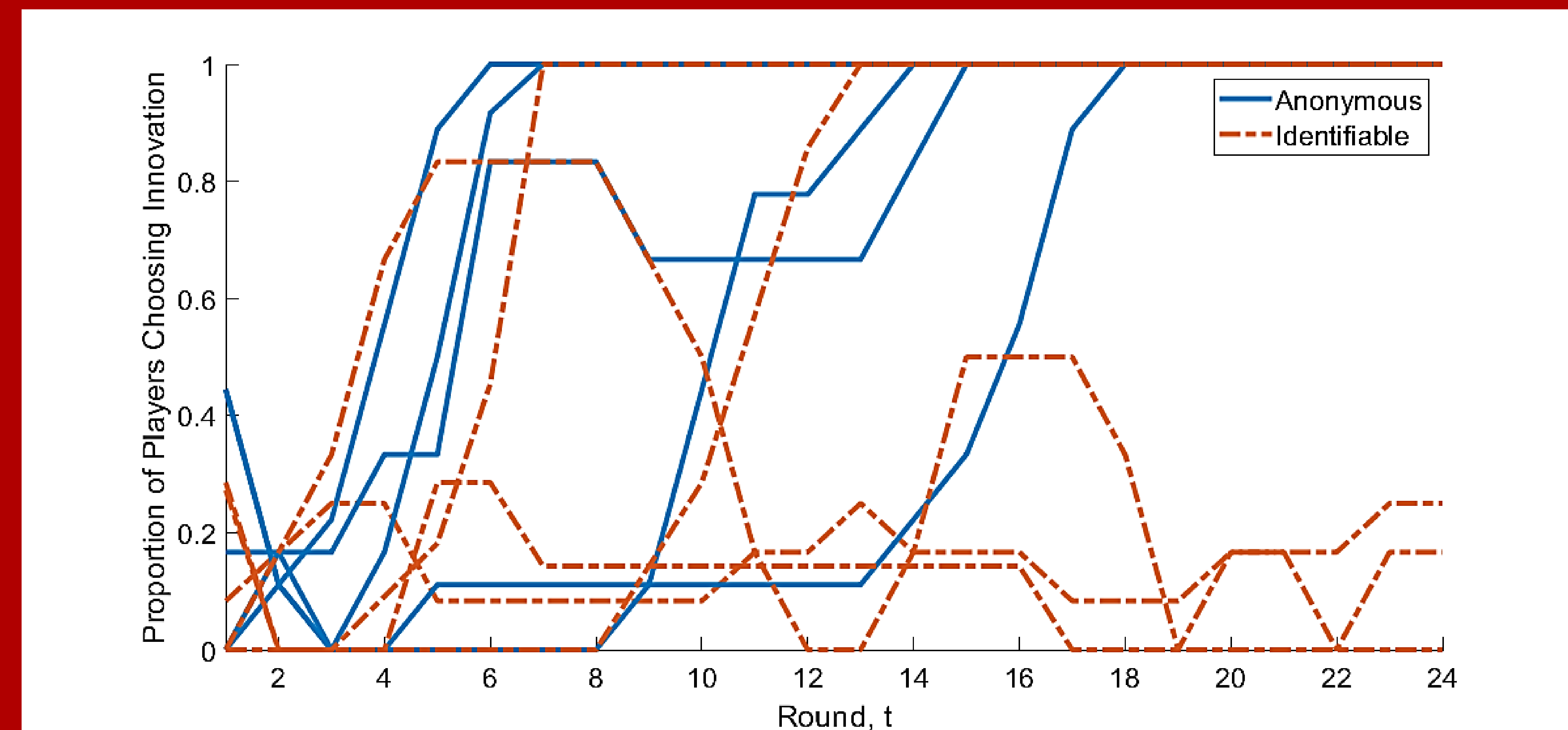


Fig. 1: Proportion of participants adopting the innovation across rounds by experimental group

Fig. 2: Experimental setup in the lab



Fig. 3: In-game choice page

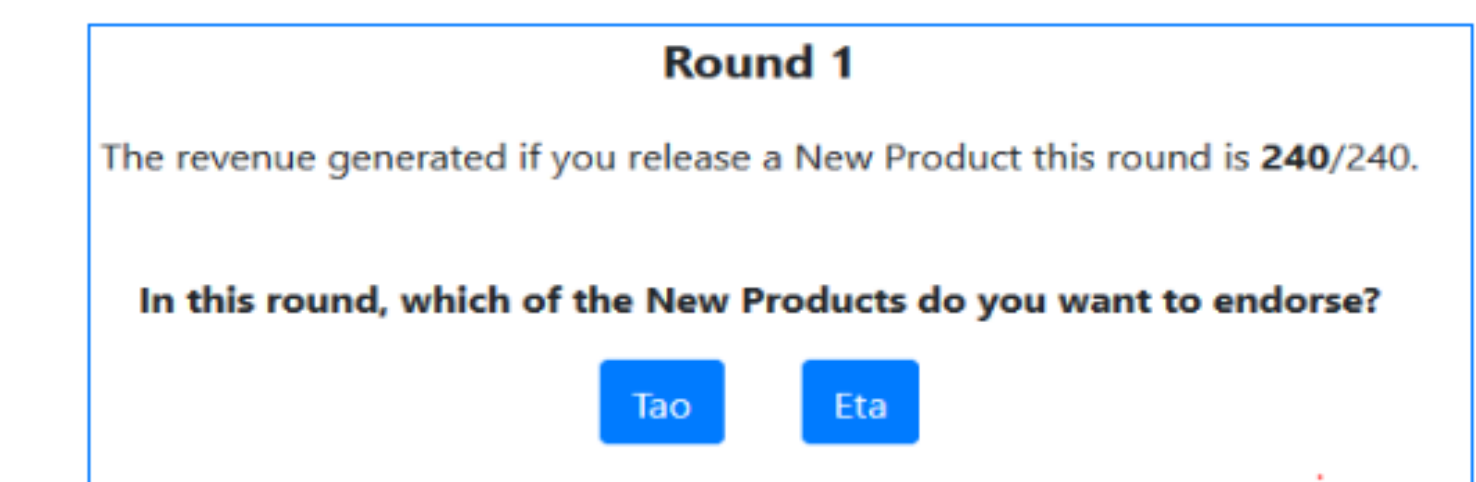


Fig. 4: In-game feedback page

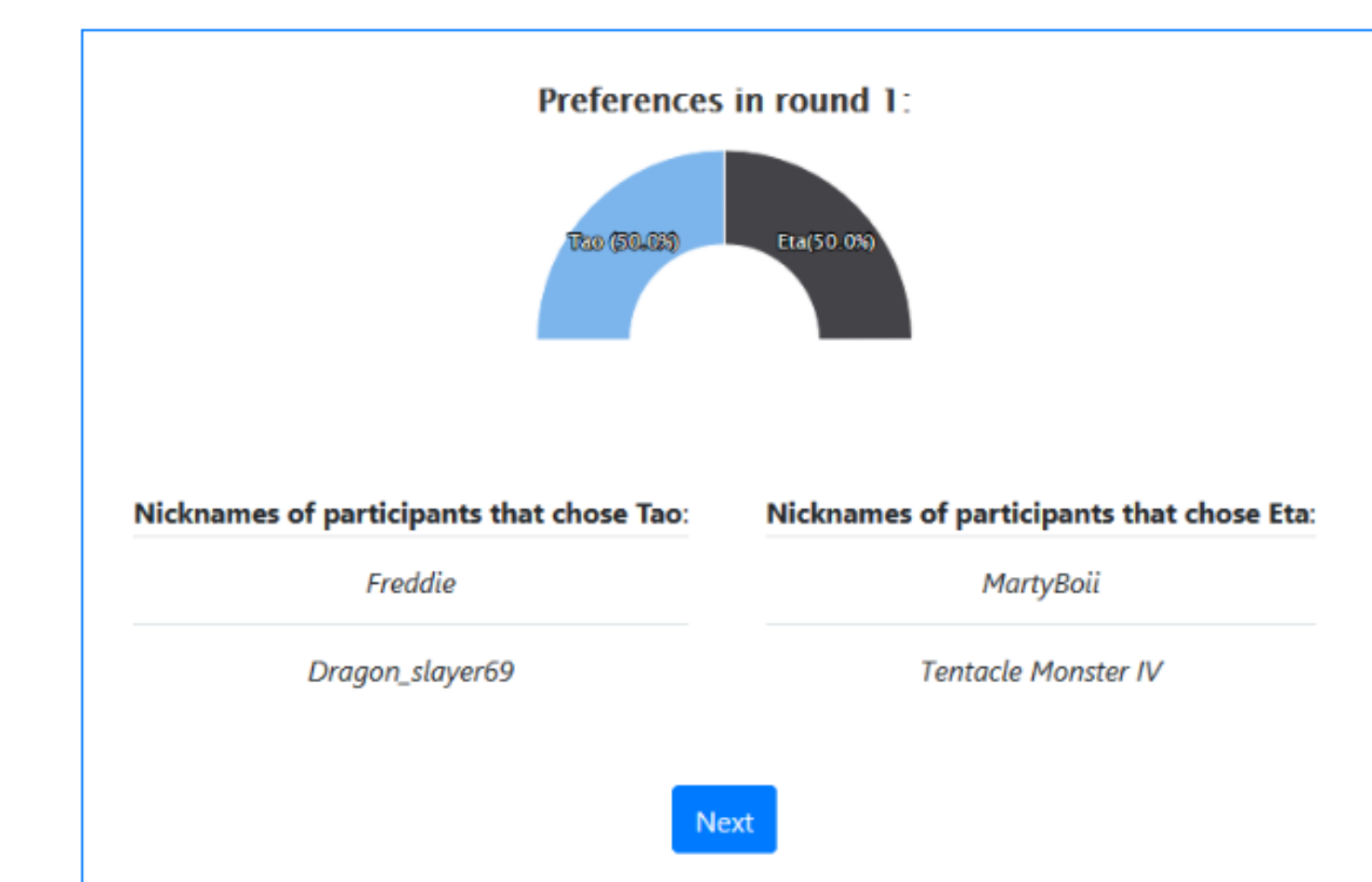


Fig. 5: Diffusion time as a function of group size and the proportion of explorers

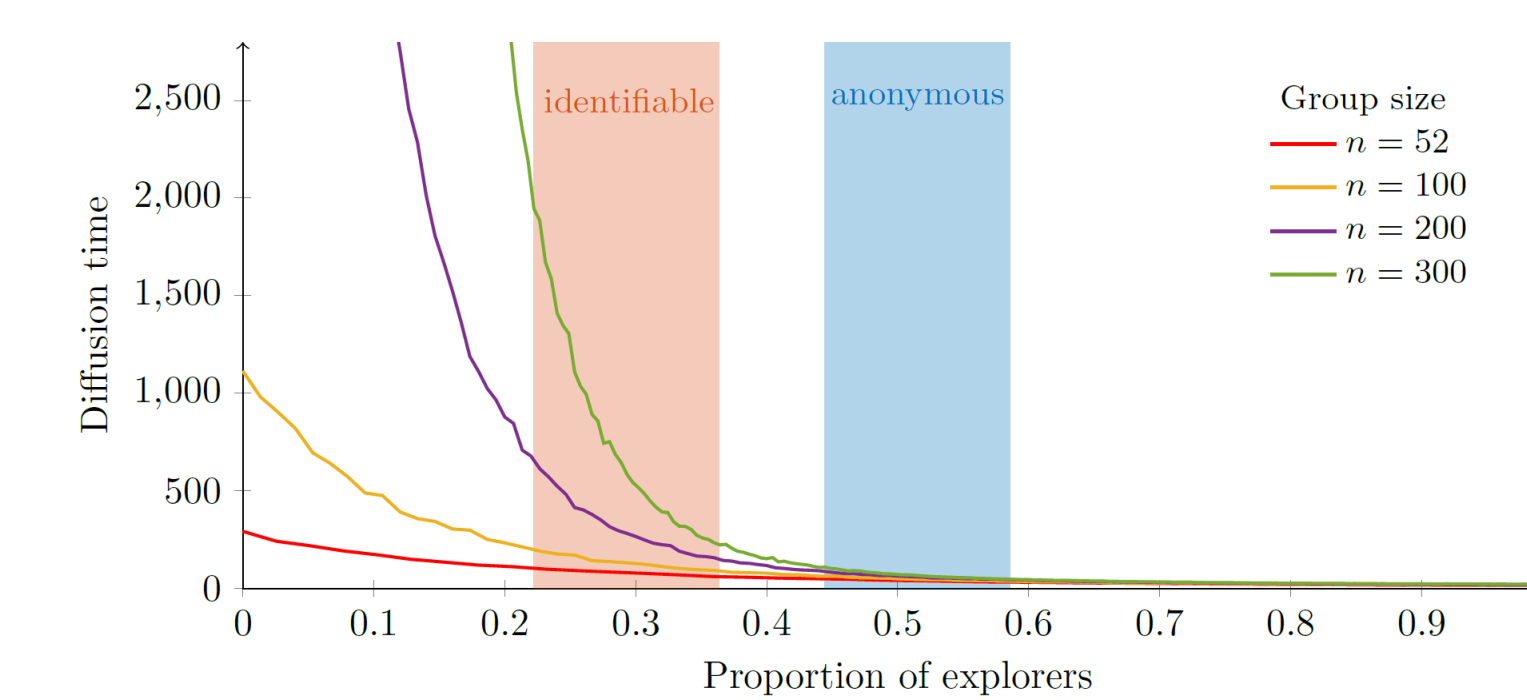
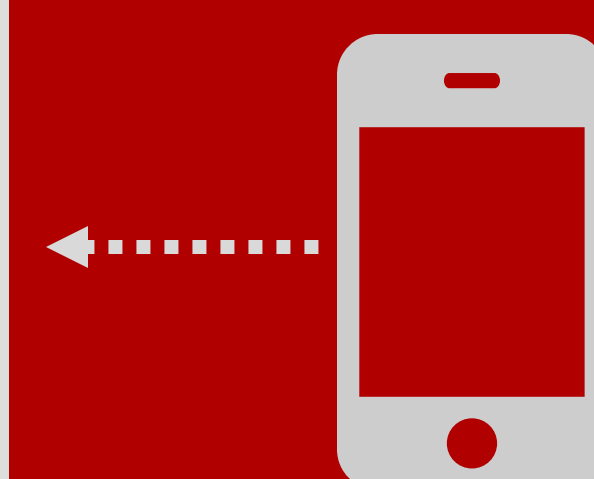
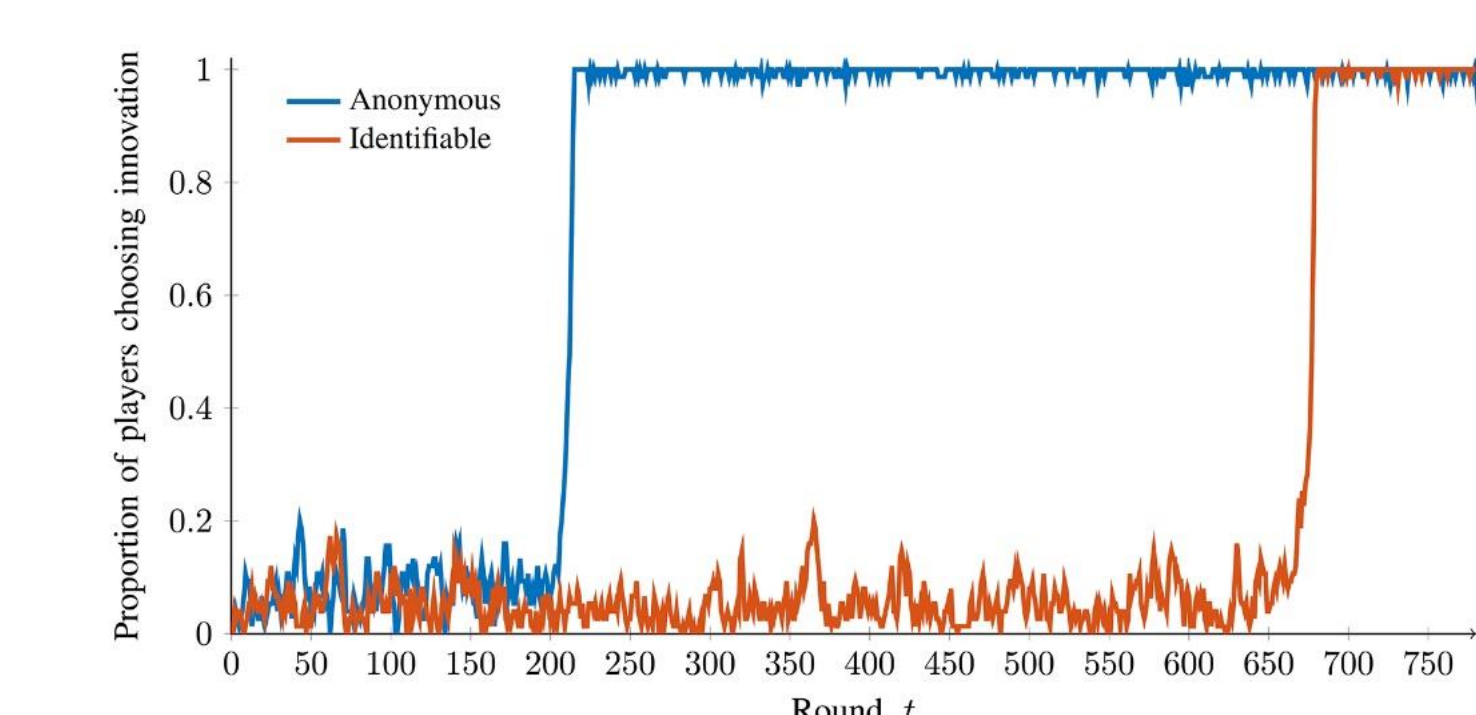


Fig. 6: Diffusion simulation in a group of 200 people



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