



Introduction

- Adults punish unfairness at a personal cost even when they are an uninvolved third-party [1]. Such costly third-party punishment is striking because it cannot be easily explained by self-interested motivations. If people are rational agents, they will not pay any costs to intervene against third-party transgressions. There is much debate over the reasons of punishment.
- One theory is that people have an altruistic disposition to punish selfishness to maintain cooperative group norms [1]. Others argue that punishment is to prevent punisher themselves from being mistreated in the future [2].
- Developmental research shows that costly third-party punishment emerges around 5-6 years of age [3]. Children start to think about the future from 3 years of age and engage in more sophisticated prospective thinking around 5 years [4]. Therefore, it is possible that children's emerging ability to think about the future enables them to punish unfair allocations to deter future mistreatment.

Research Question

- Do 5- to 9-year-old children use third-party punishment to avoid being mistreated in the future?**

Deterrence hypothesis
 If children use punishment as a way to prevent potential mistreatment, they will punish unequal allocations *more often* when interacting with the same allocator in the future (Same Allocator Condition) than when interacting with a different allocator (Different Allocator Condition).

Appeasement hypothesis
 If children fear retaliation from allocators, they will punish unequal allocations *less often* in the Same Allocator than in the Different Allocator Condition.

Method

Participants

- Planned $N = 120$ 5- to 9-year-old children; 80% complete (Current $N = 96$, 55 female, $M = 7.2$ years)

Method

Procedure

1. Introduction

- Children learned that the more coins they collect during the game, the more and the better prizes they could pick afterwards.

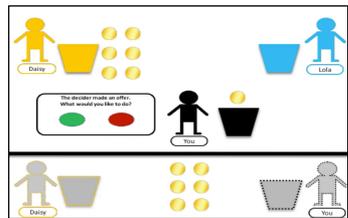
2. Second-party Game Allocator Manipulation

- Children were told that, after playing a third-party game, they will play a two-party game in which an allocator allocates coins between the self and the child.
- Two between-subject conditions

(1) Same Allocator Condition: The same allocator from the third-party game will decide to share coins with the child in the second-party game.

(2) Different Allocator Condition: A different, new allocator will share coins with the child in the second party game.

3. Third-party Game



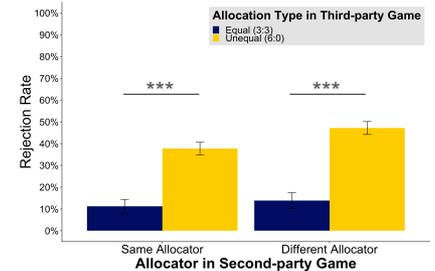
- Children watched how an allocator (upper left) allocates 6 coins between the self and a recipient (upper right).
- The allocator made either equal (3:3) or unequal (6:0) allocation.

- In every round, children were asked to press either the green or red button.

	Green Button	Red Button
Outcome	Acceptance of allocation	Rejection of allocation
Cost to Participants	No cost	1 coin cost

- Each child played 8 rounds in total (6 unequal allocation and 2 equal allocation rounds).

Preliminary Results



- There was a significant effect of allocation type, suggesting that children rejected unequal allocations ($b = 1.83$, $SE = 0.25$) more often than equal allocations, $\chi^2(1) = 71.02$, $p < .001$.
- Importantly, there was a marginally significant effect of condition, suggesting that children rejected less often in the Same Allocator Condition ($b = -0.42$, $SE = 0.24$) than in the Different Allocator Condition, $\chi^2(1) = 3.02$, $p = .08$.
- There was no two-way or three-way interaction involving age, condition or allocation type, all χ^2 's (1) < 1 , $ps > .33$. There was no main effect of age, $\chi^2(1) < 1$, $p > .90$.

Discussion

- Children punish unequal allocations more often than equal allocations, replicating previous findings [3] with a computer game.
- School-aged children punish unfair allocations regardless of whether they are told to interact with the same vs. different allocator in the future.
- Rather, children show a tendency to decrease their rate of punishment when they interact with the same allocator in the future, supporting appeasement hypothesis.
- As opposed to deterrence hypothesis [2], it is unlikely that children's third-party punishment is motivated by a self-interested desire to deter personal mistreatment in the future.