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## **Psychology**

## It's not just how the game is played - it's whether you win or lose

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## **ABSTRACT**

How much people's perceptions of inequality reflect the distribution of opportunities in society and how much they reflect people's own social position? We answer these questions by means of a novel experiment based on a card game.



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Economic inequality has increased in most advanced democracies, raising concerns about the consequences for different facets of social life. Especially noteworthy is whether growing inequality will lead individuals to fight these disparities or if, on the contrary, will facilitate the perpetuation of them. The first step to answer this question is to understand whether and when citizens deem inequality acceptable and when they don't.

From existing research, we know that in unequal societies, citizens tend to reject inequality if they perceive it as the result of an uneven playing field. Instead, inequalities based on talent and effort might be tolerated or even encouraged. At the same time, these perceptions not only depend on individual qualifications and social circumstances -- but also on

people's success or failure: successful individuals tend to overstate internal factors such as their own talent, while the unsuccessful blame external factors such as the lack of opportunities.

In this study, we investigate how much people's perceptions of inequality reflect the distribution of opportunities in society ("how the game is played") and how much they reflect people's own social position ("whether you win or lose"). To disentangle these causal effects, we use a novel experiment in which individuals are endowed with equal or unequal resources to compete for unequal rewards, similar to competitions that happen in education systems or the labor market.





Our experiment consists of a simple card game we called "the Swap Game". In this game, two participants compete against each other over seven consecutive rounds. At the beginning of each round, each player is dealt nine cards. A player wins a round when she gets rid of all cards first. Before the next round starts, players must swap up to two cards according to specific rules, depending on the version of the game they were assigned to play. In one version --regressive exchange -- the winner of the previous round must exchange the strongest card(s) while the loser exchanges the weakest. In another version -- progressive exchange -- winners of the previous round swap their weakest card(s), and losers exchange their strongest.

In our baseline condition -- random exchange -- players exchange randomly chosen cards. After the seventh round, a winner is decided based on the number of rounds won. All players receive a participation compensation of \$2.5, and winners receive an extra \$5.00 bonus. After completing the game, participants were administered a short survey in which they were asked to judge the outcome of the game as fair or unfair and to indicate the most and the least important factors that determine this outcome: luck, skill, or the rules of the game. We recruited about 1,000 participants through the crowdsourcing website Amazon Mechanical Turk.

Two are the key features of our experiment: first, the game involves virtually no skill so that players are assigned to victory or defeat based on luck and exchange rules. Second, participants are randomly selected to play different versions of the game, all of which entail a different extent of (in)equality of opportunity.

We found that winners were generally more likely than losers to attribute unequal outcomes to talent instead of luck and to see the outcomes as fair. Differences between winners and losers were the largest in our baseline condition, where opportunity was not redistributed. But winners were still more likely than losers to perceive the outcomes as fair, even when they had the playing field patently tilted to their favor.

Nevertheless, the differences between winners and losers were attenuated (but not eliminated) as redistribution was more critical to determine the outcome. In particular, the likelihood of winners to view the outcomes as fair or attributable to skill declined as the rules played more firmly in their favor. We call this the "Warren Buffet" effect as it is reminiscent of repeated calls by some American billionaires for higher taxes on the wealthy to level the playing field.

In short, beliefs about inequality and fairness seem to reflect "how the game is played" only when the opportunities are blatantly biased toward someone's favor. Otherwise, what matters most is "whether you win or lose".

We urge caution about generalizing to actual socioeconomic inequality from our results since the Swap Game differs in many essential ways from real competitions. Nevertheless, we speculate that differences in beliefs between successful and unsuccessful individuals might be even more pronounced in real-life situations, in which unequal opportunities often operate in inconspicuous ways, and the role of luck is less transparent and easier to rationalize away.