



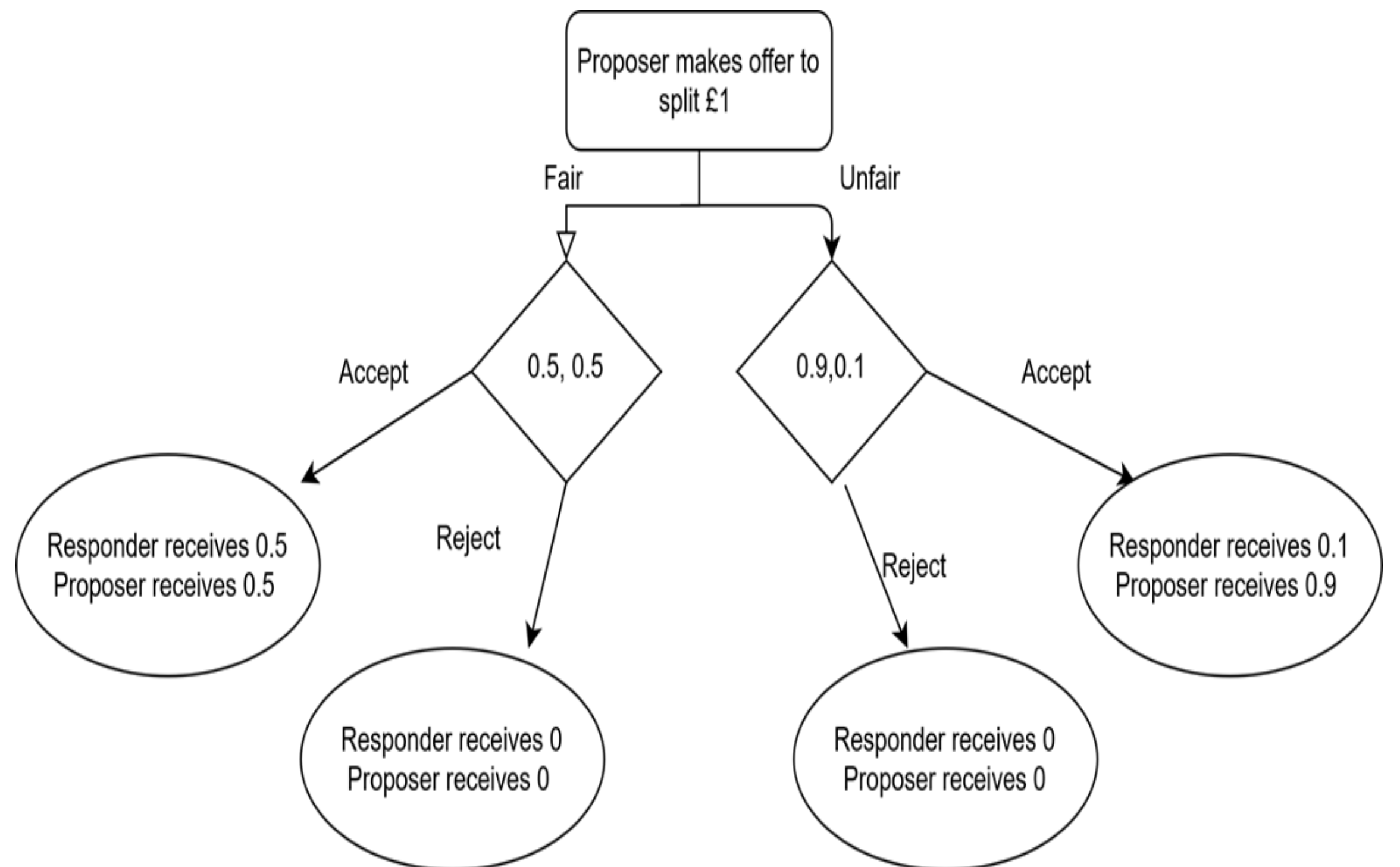
# Modifying Arguments in the Dictator Game and Ultimatum Game

## Introduction

The aim of this project is to provide whether the hypothesis that preferences of selfishness would override social values in simple Dictator games and Ultimatum games.

As both the Dictator Game and Ultimatum Game are widely used in economic experiments, game theory would suggest that individuals would care only about their payoff, preferring more money to less. Although in practise we observe players giving away some percentage of their payoff, Forsyth et al (1994) find that only 36% of players act in line with game theory predictions in their \$5 dictator game leaving no payoff for the receivers.

## Simple Ultimatum Game



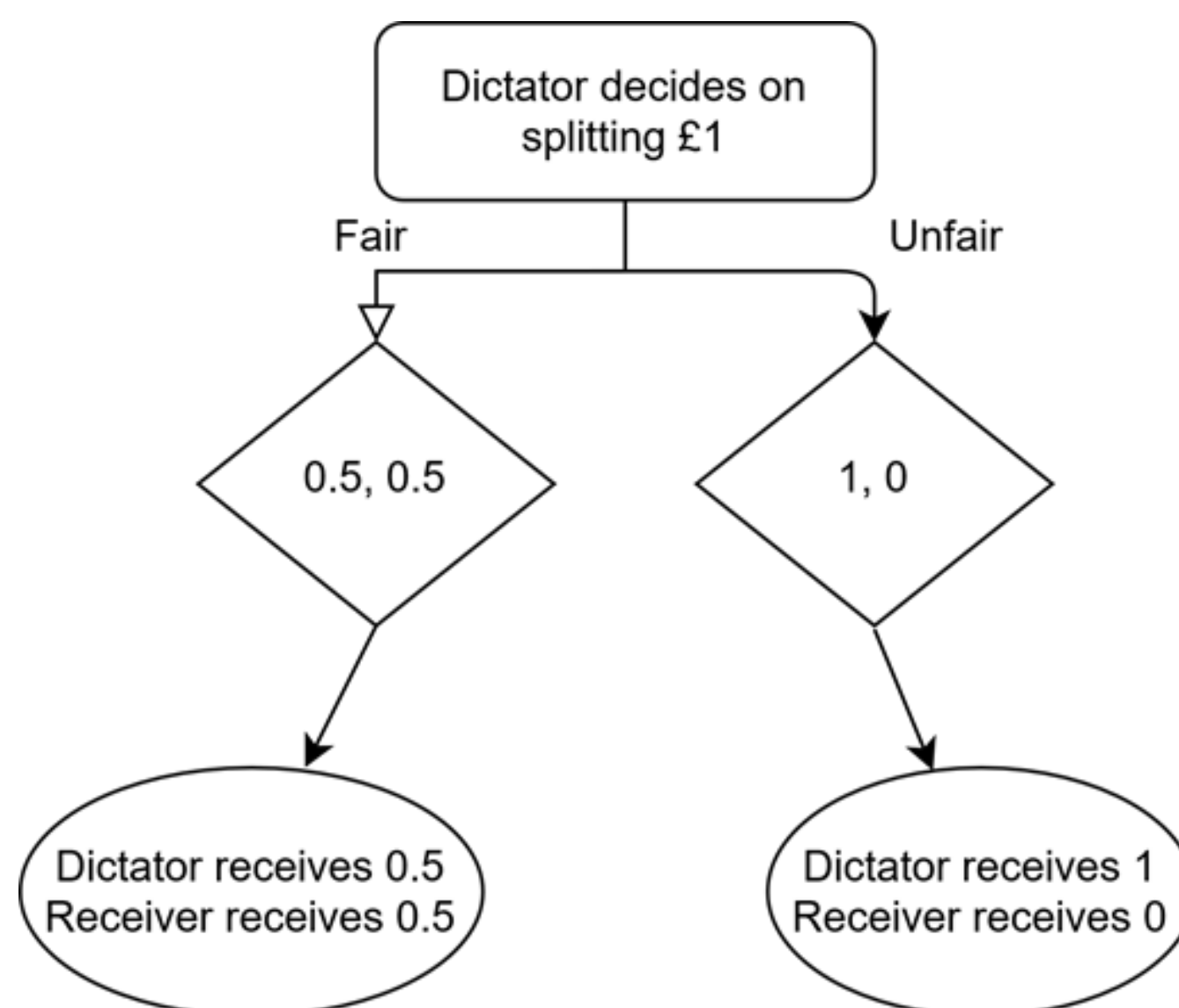
## Methods

In the simple Dictator Game and Ultimatum Game each proposer or dictator is given £1, there is a high giving dictator or proposer who would give 0.5 to the receiver, if in a Dictator Game can only accept the offer whilst in the Ultimatum Game can either accept or reject the offer either securing a payoff or both players receive nothing.

As well as a high giving Proposer/Dictator there is a low giving Proposer to which if in the Dictator Game they would not give anything to the receiver and keep the payoff for themselves, whilst in the Ultimatum Game they would secure an offer of 0.9 for themselves to which they would give 0.1 to the receiver.

Shown below is my results for 10 Dictator Games to which when a high payoff is secured for the Dictator, then the recipient would adopt the strategy of the Dictator in order to secure a higher payoff in the next game, in my graph 40% start as low giving whilst 60% start as high giving to which they adopt a low giving strategy over the 10 different games.

## Simple Dictator Game



## Background information

Both the Dictator Game and Ultimatum Game are a popular instrument of economical experiments, as we desire to investigate if comparing both games within a simulated setting as Luhan et al, 2009 and Darley and Latane, 1968, suggest that humans are more likely to be selfish when the decision is shared with another human.

Within the Dictator Game, 'the Dictator' determines an allocation of endowment to the second player, 'receiver' who is entirely passive to the Dictator's decision with no input whatsoever. Whilst within the Ultimatum Game, the 'receiver' now has the choice to either accept or reject the offer made by the 'Dictator' or 'Proposer' resulting in a split between both players of the accepted offer or if reject both players receive nothing.

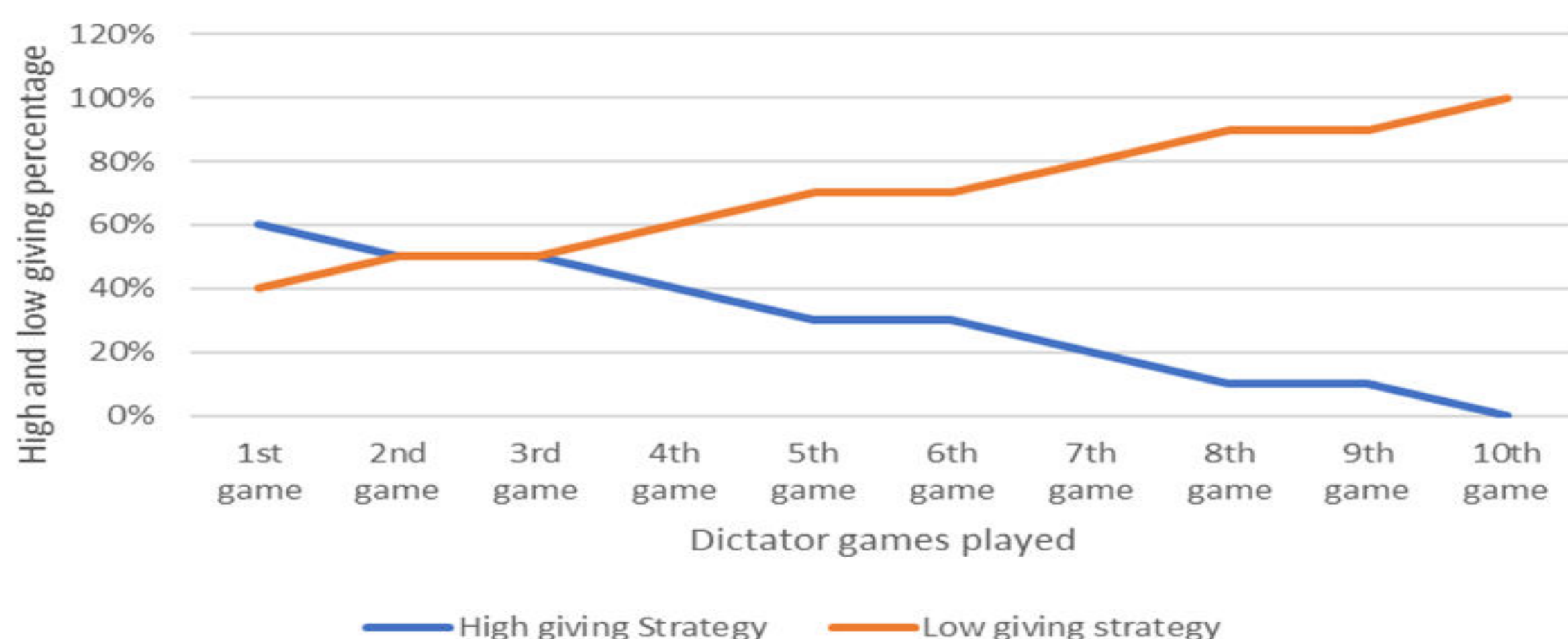
## Technology

The language used within my project is 'Java' and the integrated development environment, 'Eclipse', as the software includes the java development tools from the SDK.

As Java is considered a simple language as well as an object orientated programming language meaning it would be easy for me to program different objects that incorporate both data and behaviour.



High/Low giving Strategy over Dictator games-10



## Future Work

For my future work with my project, following my results from my Dictator Game where overall the low giving Dictators would override the decisions of the high giving Dictators to become low giving themselves.

I will next attempt to find a pattern similar within the Ultimatum Game, as to find which strategy would earn the highest payoff as well as how each strategy would adopt their either a high proposing or low proposing strategy.

## References

- Forsythe Robert, Horowitz Joel L. Savin N.E. Sefton Martin, Fairness in Simple Bargaining Experiments, 1994, Department of Economics, University of Iowa, Iowa City, Iowa 52242
- Darley, J. M., & Latane, B. (1968). Bystander intervention in emergencies: Diffusion of responsibility. *Journal of Personality and Social Psychology*, 8(4, Pt.1), 377-383.
- Group Polarization in the Team Dictator Game Reconsidered, Wolfgang J. Luhan, Martin G. Kocher, Matthias Sutter



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