INPLASY

INPLASY202450046

doi: 10.37766/inplasy2024.5.0046

Received: 10 May 2024

Published: 10 May 2024

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Inclusion and Exclusion Criteria for Altruistic Behaviour Based on the Meta-Analysis Framework of Game Theory Theory

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202450046

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 10 May 2024 and was last updated on 10 May 2024.

INTRODUCTION

Review question / Objective Prior studies have lacked a general review of the behaviour of altruism based on research under game theory theory, and have failed to integrate the prior research literature, i.e. on how different traits play a role in the behaviours that altruism produces under the game.

Objective: A theoretically oriented, comprehensive look at what traits are associated with altruistic behaviour in a variety of game situations.

Focus on the following six games: the dictator game, the ultimatum game, the trust game, the prisoner's dilemma, the public goods game, and the commons dilemma. Simulate changes in scenarios to determine scenario affordability. (a) likelihood of exploitation by both parties, (b) likelihood of reciprocity, (c) temporal conflict between short-term and long-term interests, and (d) dependence under uncertainty.

Condition being studied 1.Altruism is an ethical stance that emphasises that individuals should prioritise the interests of others, not just their own. The core idea of altruism is that actors should place the well-being of others above their own interests when making decisions.

2.Individuals are not purely selfish, but are indeed willing to give up their personal interests for the welfare of others. These altruistic tendencies create significant inter-individual differences: some individuals are willing to act for the benefit of others at personal cost, while others are motivated by self-interest and maximisation of personal gain, and different individuals behave differently based on different scenarios of the game, with different motivations for action being a reflection of different personality interests.

3. Prior research has lacked a general review of the behaviour of altruism based on research under game theory theory, and has failed to integrate the prior research literature, i.e. on how different traits play a role in the behaviours that altruism produces under gaming.

METHODS

Search strategy Literature search Adoption of subject + free word search strategy, use of Chinese search terms Altruism

- Subject Matter: Altruism
- Free word: Humanitarianism
- · Prosocial Behaviour
- · Behaviors, Prosocial Intervention: Game theory
- Entry Terms.
- Game Theories
- · Theories, Game
- Theory, Game.

Participant or population Altruism.

Intervention Game Theory Test.

Comparator Only randomized controlled trials (RCTs) will be included in this study.

Study designs to be included 1. Type of research: national and international journals published research on altruism/pro-social behaviour based on individualbehaviour under game theory Randomized controlled trial (RCT)2. Study population: individuals with pro-social behaviour under economic games (game theory)3. Intervention: Actual behaviour is measured in controlled experimental environments in a variety of interdependent situations in which each person's behaviour affects their own and others' outcomes. All these games are designed to simulate specific categories of interdependent situations.4. Ending Indicator:1.

Eligibility criteria 1. Duplicate publications

- 2. Full text not available or data not convertible
- 3. Poor study design
- 4. Multiple studies based on the same experiment
- 5. Literature in non-Chinese and English.

Information sources CBM、cnki、weipro、PubMed、Embase、Web of Science、Cochrane Library.

Main outcome(s) Interindividual behavioural differences.

Quality assessment / Risk of bias analysis The quality of all RCTs will be evaluated with the Cochrane Collaboration tool.

Strategy of data synthesis Meta-analyses of the included outcome data were performed using Stata 18 MP, and data statistics were based on the choice of random or fixed-effects models based on the results of the heterogeneity test. Methods of investigation included subgroup analyses and sensitivity analyses. If data could not be synthesised, descriptive analyses were provided to address this.

Subgroup analysis None.

Sensitivity analysis To test the stability andreliability of the results of this study, weconducted a sensitivity analysis according to the following points: method quality, sample size, and missing data. After that, we will perform a data analysis again and compare the results. If there was no directional change after the sensitivity analysis, the results were stable.

Country(ies) involved China.

Keywords Altruistic Behaviour; Game Theory.

Contributions of each author

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