

Research Article

The Impact of Exclusion Reasons and Trait Empathy on Third-Party Compensatory Behavior in Vicarious Exclusion

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Abstract

Social exclusion is a widespread phenomenon that not only negatively impacts the individuals directly excluded but also deeply affects bystanders who witness such exclusion. This study aims to investigate how bystanders' levels of trait empathy and their perception of the reasons for exclusion shape their third-party compensatory behaviors. Specifically, we examined whether bystanders with higher empathy levels are more likely to engage in compensatory actions when they perceive the exclusion as unjust. Using a 2x2 between-subjects experimental design, participants were divided into groups based on trait empathy (high vs. low) and the perceived appropriateness of the exclusion (appropriate vs. inappropriate). An online experiment was conducted to simulate social exclusion scenarios, and participants' responses were analyzed to understand how these factors influenced their behavior. The results demonstrated that bystanders with higher trait empathy were significantly more likely to offer compensation when the exclusion was perceived as inappropriate, highlighting the role of empathy in driving supportive actions. Conversely, bystanders with lower empathy showed less variation in their responses, regardless of the exclusion reason. These findings provide new insights into the interaction between personal traits and contextual factors in shaping bystander behavior during social exclusion. This study also offers practical implications for designing interventions aimed at reducing the negative effects of exclusion, promoting empathy, and creating a more inclusive and supportive social environment.

Keywords

Vicarious Exclusion, Bystander, Trait Empathy, Exclusion Reasons, Third-party Compensatory Behavior

1. Introduction

Social exclusion refers to the deliberate neglect or exclusion of individuals or groups by others from social interactions. This phenomenon is pervasive in various social contexts, ranging from schools to workplaces, families to communities [1]. Exclusion has significant negative impacts not only on the excluded individuals themselves [2, 3] but also on bystanders, leading to profound psychological and behavioral consequences [4]. Due to its widespread and profound negative effects, social exclusion has become a critical topic in

current social psychology research.

Vicarious exclusion is a form of indirect exclusion, referring to the experience by bystanders when witnessing others being excluded, where they may feel emotions and psychological reactions similar to those of the excluded individuals [5]. Although bystanders are not directly excluded themselves, through the mechanism of empathy, they may experience negative emotions such as anxiety, anger, and sadness [6]. This empathetic response not only reflects individuals' sensi-

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tivity to others' emotions but also highlights the deep emotional connections and moral belongingness that underpin human social interactions.

Vicarious exclusion not only negatively impacts the excluded individuals but also exerts far-reaching psychological and behavioral effects on bystanders. Research has shown that bystanders often experience high levels of psychological distress and emotional turmoil when witnessing others being excluded. These psychological responses can influence their behavior and decision-making, even altering their cognitive processes [7]. In an effort to alleviate such discomfort, bystanders may engage in various behaviors in response to the exclusion scenario, such as showing sympathy or assisting the excluded individual, or punishing the perpetrator of the exclusion [8].

Third-party compensatory behavior refers to the supportive actions taken by bystanders in response to witnessing someone else being excluded. Such behavior aims to compensate for the psychological or material losses suffered by the excluded individual [9]. Research has indicated that, driven by humanitarian concerns, third parties may sympathize with the excluded individual's plight and offer help [10]. Compensatory behaviors come in many forms, including offering emotional support, providing material aid, or publicly opposing the excluder. These actions not only help restore psychological balance for the excluded individual but also assist the bystanders in relieving their own emotional distress.

Empathy plays a key role in the mechanism of third-party compensatory behavior. Empathy refers to the ability of individuals to perceive, understand, and respond to others' emotions and experiences. When individuals perceive that others are in distress, the cognitive-affective system of empathy is activated. Observers may experience the same emotions as those being excluded, thereby evaluating the emotional state of the excluded individual [11]. When they recognize that help is needed, they are likely to exhibit some form of helping behavior [8]. There are significant differences in empathy levels across individuals. Individuals with higher empathy levels are more likely to feel the pain of the excluded and, therefore, engage in more positive third-party compensatory behaviors [12]. In contrast, individuals with lower empathy levels may have weaker perceptions of others' pain and, consequently, exhibit fewer compensatory behaviors. Based on this, Hypothesis 1 suggests that empathy levels will significantly influence third-party compensatory behavior in vicarious exclusion scenarios.

Furthermore, different exclusion reasons may lead to varying emotional responses and behavioral choices among bystanders. For example, exclusion based on prejudice may elicit stronger feelings of anger and injustice among bystanders, which, in turn, trigger stronger compensatory behaviors [13]. On the other hand, exclusion based on misunderstandings or social norms may lead to different emotional reactions and behavioral tendencies [10]. Based on this, Hypothesis 2 suggests that exclusion reasons will significantly

influence third-party compensatory behavior in vicarious exclusion scenarios.

Existing empirical studies have shown that bystanders do exhibit third-party compensatory behavior in vicarious exclusion scenarios [14]. However, the specific mechanisms by which exclusion reasons and empathy levels influence such behaviors remain unclear. Some studies indicate that different exclusion reasons and empathy levels among bystanders significantly affect their compensatory behavior patterns [15]. Based on this, Hypothesis 3 suggests that empathy levels and exclusion reasons will jointly influence third-party compensatory behavior in vicarious exclusion scenarios.

This study aims to explore the mechanisms by which exclusion reasons and empathy levels affect third-party compensatory behavior in vicarious exclusion among bystanders. By gaining a deeper understanding of this process, we can not only enrich our theoretical knowledge of vicarious exclusion and its social-psychological effects but also provide empirical support for practical interventions aimed at addressing exclusion. This has significant implications for improving social relationships and promoting mental health.

2. Methods

2.1. Headings

A total of 130 participants were recruited for this experiment, including 37 males and 93 females, aged 18 to 60 years old ($M = 35.7$, $SD = 1.34$). Among them, 66 participants were in the high empathy group (18 males and 58 females), and 64 participants were in the low empathy group (19 males and 45 females). Regarding exclusion reasons, 60 participants were assigned to the appropriate exclusion reason group (13 males and 47 females), and 70 participants to the inappropriate exclusion reason group (24 males and 46 females).

2.2. Experimental Design

The experiment employed a 2 (Trait Empathy Level: high vs. low) \times 2 (Exclusion Reasons: appropriate vs. inappropriate) between-subjects design. The dependent variable was the amount of money participants allocated as a compensatory measure.

2.3. Materials

(1) Trait Empathy Scale

Trait empathy levels were measured using the Measure of Empathy (ME) developed by Vossen [16]. The scale consists of 8 items, divided into two dimensions: cognitive empathy and emotional empathy, with 4 items for each dimension. All items were rated on a 5-point Likert scale, ranging from 1 (never) to 5 (always). Wang Yang [17] adapted the scale into Chinese and validated its applicability in China. In the Chinese version, the reliability coefficient for the overall scale

was 0.76, with 0.77 for cognitive empathy and 0.80 for emotional empathy. In the current study, the reliability coefficient for the overall scale was further increased to 0.88.

(2) Cyberball Video Simulation

The Cyberball 5 program was used to set up two game scenarios: exclusion and inclusion. In the game, 30 throws were made, with Player 1 (red) and Player 3 (green) being computer-controlled, while Player 2 (blue) was controlled by the real participants. In the exclusion scenario, Player 2 received only two throws at the beginning of the game, while in the inclusion scenario, all players received an equal number of throws. Participants engaged in both scenarios and the entire process was recorded [14, 17].

(3) Compensatory Behavior Measurement

A virtual scenario was designed, simulating an offline ball-throwing game involving three elementary school students: Xiao Zhao and two other classmates. The exclusion and inclusion conditions in the game mirrored those in the video content. Specifically, in the exclusion scenario, Xiao Zhao received only two passes at the beginning of the game, while in the inclusion scenario, all three players received an equal number of passes.

Participants were asked to choose from seven different money allocation plans, which varied in the amount of money allocated to Xiao Zhao, with the amounts decreasing in order. The allocation plans ranged from Plan 7, in which Xiao Zhao received 8 yuan and the other two players each received 2 yuan, to Plan 1, in which Xiao Zhao received 2 yuan and the other two players each received 8 yuan. The more money allocated to Xiao Zhao reflected stronger empathy or support for his experience.

2.4. Procedure

The online experiment was conducted using the Credamo platform. Participants were randomly assigned to one of the two groups (exclusion vs. inclusion) and were informed that the study was a routine survey, with the data used solely for academic research.

The survey consisted of four parts. The first part involved filling out personal demographic information and the Trait

Empathy Scale. The second part required participants to watch an online ball-throwing game video and engage in perspective-taking with Player 2 (the blue player). In the third part, participants were asked to allocate the research fee according to the scenario they had just observed [17].

3. Results

3.1. Validity Check for Trait Empathy Levels and Exclusion Reasons

To test the validity of the manipulation of trait empathy levels, an independent sample t-test was conducted. The results indicated a significant difference between the low and high trait empathy groups ($t(128)=-14.69, p<0.001$), proving that the grouping was effective.

3.2. The Influence of Trait Empathy Levels and Exclusion Reasons on Third-Party Compensatory Behavior

A two-factor ANOVA (2x2) was used to explore the impact of trait empathy levels and exclusion reasons on third-party compensatory behavior. The independent variables were trait empathy levels (low vs. high) and exclusion reasons (appropriate vs. inappropriate), with the dependent variable being bystander third-party compensatory behavior.

The results showed that the main effect of trait empathy levels was not significant ($F(1,128)=2.43, p>0.05, \eta^2_p=0.019$), although bystanders with high trait empathy exhibited higher third-party compensatory behavior scores. The main effect of exclusion reasons was marginally significant ($F(1,128)=3.86, p=0.052, \eta^2_p=0.029$), with higher compensatory behavior scores when the exclusion reason was perceived as inappropriate. The interaction effect between trait empathy levels and exclusion reasons was significant ($F(1,126)=8.49, p<0.01, \eta^2_p = 0.063$). The results are presented in Tables 1 and 2.

Table 1. Mean and Standard Deviation (M±SD) of Third-Party Compensatory Behavior at Different Levels.

Reasons for Exclusion	Low Trait Empathy	High Trait Empathy
Justified	3.81 ±1.06	3.47 ±1.33
Unjustified	3.61 ±1.13	4.78 ±2.11

Table 2. Mean and Standard Deviation (M±SD) of Third-Party Compensatory Behavior at Different Levels.

Source of Variation	Sum of Squares	df	Mean Square	F	η^2_p
Trait Empathy Level	5.610	1	5.610	2.61	0.020

Source of Variation	Sum of Squares	df	Mean Square	F	η^2_p
Reasons for Exclusion	9.791	1	9.791	4.55*	0.035
TEL × Reasons for Exclusion	18.251	1	18.251	8.48**	0.063

Note: ** indicates $p < 0.01$; * indicates $p < 0.05$

Further simple effect analysis revealed that under the low trait empathy condition, the difference in third-party compensatory behavior between the appropriate and inappropriate exclusion reasons was not significant ($F(1,128) = 0.13, p > 0.05$). However, under the high trait empathy condition, the compensatory behavior in the inappropriate exclusion reason group was significantly higher than that in the appropriate

exclusion reason group ($F(1,128) = 0.13, p < 0.01$). This suggests that, under the low trait empathy condition, whether the exclusion reason is appropriate or not has little effect on bystander compensatory behavior, whereas, under the high trait empathy condition, the appropriateness of the exclusion reason significantly affects compensatory behavior. The results are shown in Figure 1.

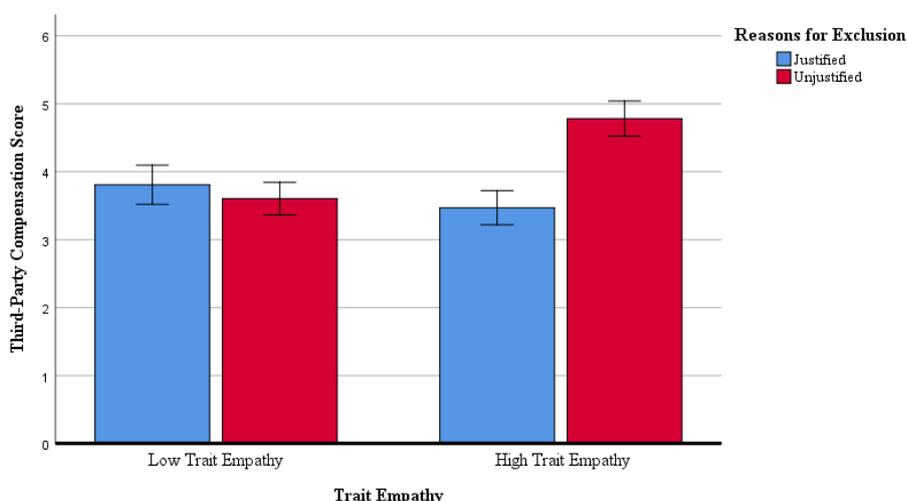


Figure 1. Third-party compensatory behavior across different exclusion reasons under trait empathy levels.

4. Discussion

4.1. The Influence of Trait Empathy Levels and Exclusion Reasons on Third-Party Compensatory Behavior

The results of this study indicate that trait empathy levels did not significantly influence third-party compensatory behavior, meaning that Hypothesis 1 was not supported. However, individuals with higher trait empathy did exhibit higher compensatory behavior scores. This finding is consistent with previous research. For instance, DeWall (2011) suggested that individuals with high empathy are more likely to feel the pain of others and may thus engage in more supportive behavior. Although the effect of trait empathy levels was not highly significant in this study, this may be due to factors such as sample size, sensitivity of measurement tools, or experimental manipulation. Future research could further explore how

empathy levels affect compensatory behavior through specific psychological mechanisms.

Exclusion reasons had a significant influence on third-party compensatory behavior, supporting Hypothesis 2. The results showed that when the exclusion reason was deemed inappropriate, bystanders exhibited higher levels of compensatory behavior. This suggests that when exclusion is perceived as unjust or unreasonable, bystanders are more motivated to intervene in order to restore justice or balance [18]. Exclusion based on prejudice is more likely to elicit a stronger sense of injustice and compensatory behavior from bystanders. This implies that, when designing interventions to address exclusion, emphasizing the unjust nature of the exclusion may be an effective strategy to increase third-party intervention.

The study found a significant interaction between trait empathy levels and exclusion reasons, supporting Hypothesis 3. In social psychology, individual behavior is often viewed as the result of the interaction between individual traits and situational factors. As a part of individual differences, trait empathy can influence people's perceptions of and reactions

to social situations. According to the interactionist perspective, the interaction between individual traits (e.g., empathy levels) and environmental factors (e.g., exclusion reasons) determines how individuals respond to specific social situations [19]. Additionally, Batson's moral motivation theory suggests that empathy not only prompts individuals to understand others' emotions but can also inspire moral actions, such as helping others or engaging in compensatory behavior. These theories provide a theoretical foundation for understanding how empathy and exclusion reasons jointly influence bystander behavior [20].

Simple effect analysis revealed that, under the high empathy condition, inappropriate exclusion reasons had a more significant effect on compensatory behavior. This suggests that for different groups, different intervention strategies should be adopted to effectively prevent and reduce social exclusion [21]. For instance, for individuals with high empathy, interventions could focus on emphasizing emotional support and the importance of social justice, such as through workshops or training programs to enhance awareness and responses to unjust exclusion. For groups with lower empathy, interventions might concentrate on increasing empathy and educating them about the negative impacts of unjust exclusion [22].

4.2. Limitations and Future Research Directions

Although this study provides valuable insights into social exclusion interventions, it has some limitations. For example, the current study primarily relied on video simulations of social exclusion scenarios. While this method allows for standardizing experimental conditions, it may not fully capture the complexity and nuances of real-world interactions. Future research should consider using more ecologically valid methods, such as diary studies or field observations, to examine social exclusion in everyday life and its impact on bystanders.

Additionally, this study only generally explored the effects of trait empathy and exclusion reasons on third-party compensatory behavior [23]. Future research should investigate the interaction between different types of empathy (such as emotional empathy and cognitive empathy) and exclusion reasons. Emotional empathy refers to feeling others' emotional states, while cognitive empathy involves understanding others' mental states. Different exclusion reasons, such as those based on race, gender, or cultural differences, may trigger different types of empathetic responses, thereby affecting bystander behavior [24]. Understanding these complex interactions will help develop more targeted and effective intervention strategies.

5. Conclusions

This study explored the impact of exclusion reasons and empathy levels on third-party compensatory behavior in vicarious exclusion scenarios. The results revealed that exclu-

sion reasons significantly influenced third-party compensatory behavior, while trait empathy levels had no significant effect. However, the interaction between trait empathy and exclusion reasons did affect compensatory behavior. Specifically, under high empathy conditions, inappropriate exclusion reasons had a more significant impact on compensatory behavior.

These findings suggest that empathy levels can enhance or modify behavioral responses triggered by exclusion reasons. Individuals with high empathy are more sensitive to unjust or unreasonable exclusion, making them more likely to engage in compensatory behavior in response to such exclusion. This highlights the importance of considering both individual traits and specific situational factors when designing interventions to address social exclusion. These results enrich our understanding of vicarious exclusion and its consequences, suggesting that mental health and social intervention practices should take into account both individual empathy traits and the context of exclusion.

Abbreviations

TEL Trait Empathy Level

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Author Contributions

Fengjie Ci: Conceptualization, Methodology, Formal Analysis, Writing—original draft

Yan Wang: Data curation, Writing—review & editing

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Data Availability Statement

The data is available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no conflicts of interest.

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Biography



Fengjie Ci is currently a second-year master's student at Ludong University, where they also completed their undergraduate studies, both majoring in psychology. Their primary research focus is on the social development of children and adolescents.

Research Field

Cifeng Jie: Children's Social Development, Adolescent Development, Positive Psychology, Empathy Psychology, Adolescent Mental Health.

Yan Wang: Educational Psychology, Fairness Psychology, Third-Party Punishment, Adolescent Mental Health, Empathy Psychology.