

Moderating Effects of Psychological Flexibility on the Relationship Between Empathy and Reactive/Proactive Aggressiveness

Introduction

Previous studies have not found a consistent relationship between empathy and aggressiveness. Therefore, it is necessary to examine the relationship from the viewpoint of other variables. Recently, the relationship between psychological flexibility and aggressiveness has attracted attention. However, research on this topic has not progressed in Japan. In addition, no studies have examined the relationship between empathy and aggressiveness and focused on the interaction between empathy and psychological flexibility. Hence, this study aimed to examine the effects of psychological flexibility and inflexibility on reactive and proactive aggressiveness. It also investigated the moderating effects of psychological flexibility and inflexibility on the relationship between empathy and reactive and proactive aggressiveness.

Methods

This study was conducted between November 2 and 24, 2022, among students attending a Japanese university. In total, 198 subjects agreed to participate. Of them, those with even one missing item on the questionnaire were excluded from the analysis, finally leading to 123 participants. Participants' mean age was 20.74 years ($SD=1.37$). This study used the (1) Self-report Reactive Aggressiveness Scale for University Students, (2) Self-report Proactive Aggressiveness Scale for University Students, (3) Multidimensional Emotional Empathy Scale, (4) Avoidance and Fusion Questionnaire for Youth, and (5) Acceptance and Action Questionnaire-II.

Results

A hierarchical multiple regression analysis was conducted with reactive and proactive aggressiveness as the objective variables and empathy, psychological flexibility, and psychological inflexibility as the explanatory variables. The results revealed a negative relationship between empathy and proactive aggressiveness and a positive relationship between psychological inflexibility and reactive and proactive aggressiveness. Furthermore, psychological inflexibility strengthened the negative relationship between empathy and proactive aggressiveness.

Discussion

The results indicated that higher psychological inflexibility was associated with higher reactive and proactive aggressiveness. Furthermore, psychological inflexibility strengthened the negative relationship between empathy and proactive aggressiveness. Hence, psychological inflexibility was a risk factor for aggressiveness. In addition, the negative relationship between empathy and proactive aggressiveness was strengthened by psychological inflexibility. Future intervention research should focus on psychological inflexibility in individuals with low empathy to improve aggressiveness.

Moderating Effects of Psychological Flexibility on the Relationship Between Empathy and Reactive/Proactive Aggressiveness

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Background

- ✓ Previous studies have not found a consistent relationship between empathy and aggressiveness (Vachon, Lynam & Johnson, 2014).
⇒ It is necessary to examine the relationship from the viewpoint of other variables .
- ✓ The relationship between psychological flexibility and aggressiveness has attracted attention (Olga, Diana, & Maureen, 2019).
⇒ Research on this topic has not progressed in Japan.

Aim To examine the moderating effects of psychological flexibility and inflexibility on the relationship between empathy and reactive and proactive aggressiveness.

Introduction

Survey Subjects 123 Japanese university students. Mean age was 20.74 (SD = 1.37).

Procedure An online survey was conducted by Qualtrics.

Survey Materials

- (1) Face items: Respondents were asked to indicate their age, gender (male, female, other), and grade.
- (2) Self-report Reactive Aggressiveness Scale for University Students (Hamaguchi, 2005): 5 factors with 30 items. Total scores were used.
- (3) Self-report Proactive Aggressiveness Scale for University Students (Hamaguchi, 2005): 4 factors with 27 items. Total scores were used.
- (4) Multidimensional Emotional Empathy Scale (Suzuki & Kino, 2008) : 5 factors with 24 items. Total score was used.
- (5) Avoidance and Fusion Questionnaire for Youth (Ishizu, Shimoda & Ohtsuki, 2014): 1 factor with 17 items. Total scores were used.
- (6) Acceptance and Action Questionnaire-II. (Kinoshita, Yamamoto & Shimada, 2008): 1 factor with 9 items. Total score was used.

Methods

Analysis A hierarchical multiple regression analysis was conducted with reactive and proactive aggressiveness as the objective variables and empathy, psychological flexibility, and psychological inflexibility as the explanatory variables.

Analysis of reactive aggressiveness

- ✓ Interaction between empathy and psychological inflexibility was significant ($\beta = -0.78, p < .05$).
⇒ A simple slope analysis with empathy as the criterion
- ✓ No significant difference in the degree of reactive aggressiveness depending on empathy in either the high ($t = -1.36, p = .18$) or low ($t = 1.41, p = .16$) psychological inflexibility group.

Results

Table 1 Analysis with reactive aggressiveness as the objective variable

Explanatory variable	β	R^2	ΔR^2
Step 1			
Empathy	-0.022	.159 **	.159
Psychological flexibility	0.216		
Psychological inflexibility	0.507 **		
Step 2			
Empathy	0.027	.213 **	.054
Psychological flexibility	0.224		
Psychological inflexibility	0.504 **		
Empathy*psychological inflexibility	-0.257		
Empathy*psychological inflexibility	-0.779 **		

** $p < .01$, * $p < .05$, + $p < .10$



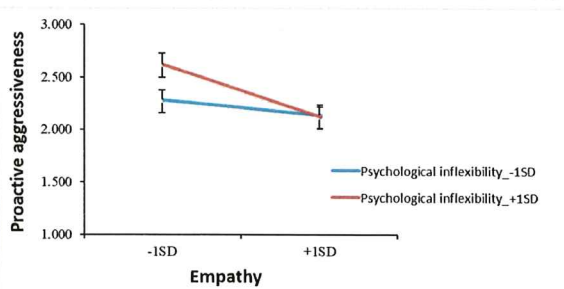
Analysis of proactive aggressiveness

- ✓ The main effect of empathy was significant ($\beta = -0.48, p < .05$).
- ✓ The interaction between empathy and psychological inflexibility was also significant ($\beta = -0.44, p < .05$).
⇒ A simple slope analysis with empathy as the criterion
- ✓ The high psychological inflexibility group was significantly more proactive aggressive than the low empathy group ($t = 3.06, p < .05$).

Table 2 Analysis with proactive aggressiveness as the objective variable

Explanatory variable	β	R^2	ΔR^2
Step 1			
Empathy	-0.505 *	.059 +	.059
Psychological flexibility	-0.280		
Psychological inflexibility	0.138 +		
Step 2			
Empathy	-0.481 *	.095 *	.036
Psychological flexibility	-0.271		
Psychological inflexibility	0.137 +		
Empathy*psychological inflexibility	-0.100		
Empathy*psychological inflexibility	-0.435 *		

** $p < .01$, * $p < .05$, + $p < .10$



- ✓ Higher psychological inflexibility was associated with higher reactive and proactive aggressiveness.
- ✓ The negative relationship between empathy and proactive aggressiveness was strengthened by psychological inflexibility.
⇒ Future research should measure data for each of the six processes of the psychological inflexibility model and examine their relationship to aggressiveness.

Conclusions

発表概要報告書

攻撃行動 (Aggression) は素行症 (Conduct disorder) などに特徴として見られ、早急な対応が求められる問題である。攻撃性のリスク要因として共感性の低さが挙げられるが、共感性と攻撃性の関連については知見が一致していない。共感性に合わせて攻撃性に影響を与える概念として、近年攻撃性との関連が示されている心理的柔軟性 (Psychological flexibility) という概念がある。そこで今回ポスター発表を行った本研究では、大学生の共感性と心理的柔軟性が反応的・能動的攻撃性 (Reactive and Proactive aggressiveness) に与える影響を検討することを目的として実施した。大学生 198 人を対象にオンライン調査を実施した。回答に不備のなかった 123 人を対象に共感性、心理的柔軟性、心理的非柔軟性を説明変数、反応的・能動的攻撃性を目的変数とした階層的重回帰分析を行った。

その結果より、共感性と反応的攻撃性の関連は見られなかった。共感性と能動的攻撃性は負の関連が見られ、共感性が低いほど能動的攻撃性が高まることが示された。このことから他者を支配し利用するといった攻撃性は共感性の低さがリスク要因となり、怒りなどの攻撃性は共感性とは関係しない可能性が示唆された。また、両攻撃性において共感性と心理的非柔軟性の交互作用が見られた。反応的攻撃性においては、共感性が低い場合に心理的柔軟性が低いと反応的攻撃性が高まることが示された。また共感性が高い場合は心理的非柔軟性による能動的攻撃性への影響に差は見られなかった。このことから共感性が低いと心理的非柔軟性の反応的攻撃性へ与える正の影響が強くなることが示された。能動的攻撃性においては、心理的非柔軟性が高い場合に共感性が低いと能動的攻撃性が高まることが示された。また心理的非柔軟性が低い場合は共感性による能動的攻撃性への影響に差は見られなかった。このことから心理的非柔軟性が高いと共感性の能動的攻撃性へ与える負の影響が強くなることが示された。これらはアクセプタンス&コミットメントセラピー (Acceptance and Commitment Therapy) の有効性について攻撃性の研究に示唆を与えることができた。しかし、心理的柔軟性と反応的・能動的攻撃性の関連は認められなかった。今後は心理的柔軟性モデルと心理的非柔軟性モデルを包括した尺度ではなく、それぞれの構成する概念ごとに分けて調査を行い、より詳細に検討する必要がある。

上記の研究について、様々な研究者とコミュニケーションを取り、議論したことが今回の国際学会発表の大きな収穫である。

(日本語 1200 字以内)

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