



The Moderating Role of Emotion Regulation on the Relationship between Sensitivity to Punishment and Aggressive Behaviour



Megías-Robles, A.^{1*}, Gómez-Leal, R.¹, Gutiérrez-Cobo, M.J.², Cabello, R.³, & Fernández-Berrocal, P.¹

¹Emotion and Cognition Group. Department of Basic Psychology, University of Málaga, Málaga, Spain.

²Department of Developmental and Educational Psychology, University of Málaga, Granada, Spain.

³Department of Developmental and Educational Psychology, University of Granada, Granada, Spain.

30th European Congress of Psychiatry

Introduction

- Human aggression is defined as “any behaviour directed toward another individual that is carried out with the proximate intent to cause harm” (Anderson & Bushman, 2002). Given its relevant implications for society, research has largely focused on identifying the risk and protective factors of aggression.
- The role of sensitivity to punishment in aggression is controversial and it appears to depend on the type of aggression (Pederson et al., 2018).
- The aim of this research was to clarify the role of sensitivity to punishment in different types of aggression and provide a better understanding of the influence of emotional regulation on this relationship.

Study 1

Aims and hypotheses

The aim was to clarify the role of sensitivity to punishment in four different types of aggression: physical verbal aggression, anger, and hostility.

H1. A higher sensitivity to punishment is related to higher levels of anger and hostility.

H2. Given the previously demonstrated causal role of anger and hostility in behavioural aggression (Ramírez & Andreu [2006]) and the expected findings described in H1, we propose the existence of a positive indirect effect of sensitivity to punishment on physical and verbal aggression through the mediating role of both anger and hostility.

Participants

484 participants (48.6% women; average age = 39.09 years).

Instruments

Sensitivity to punishment and sensitivity to reward questionnaire (SPSRQ–20).

Buss-Perry aggression questionnaire (BPAQ).

Results

Table 1. Descriptive statistics and Pearson's correlations of the studied variables.

| | x̄(SD) | 1 | 2 | 3 | 4 |
|---------------------------|-------------|-------|-------|-------|-------|
| (1) Sensit. to punishment | 4.12 (2.80) | — | | | |
| (2) Physical aggression | 1.90 (0.73) | .01 | — | | |
| (3) Verbal aggression | 2.73 (0.76) | -.06 | .51** | — | |
| (4) Anger | 2.57 (0.75) | .17** | .56** | .60** | — |
| (5) Hostility | 2.61 (0.70) | .44** | .43** | .45** | .62** |

* $p < .05$ ** $p < .001$

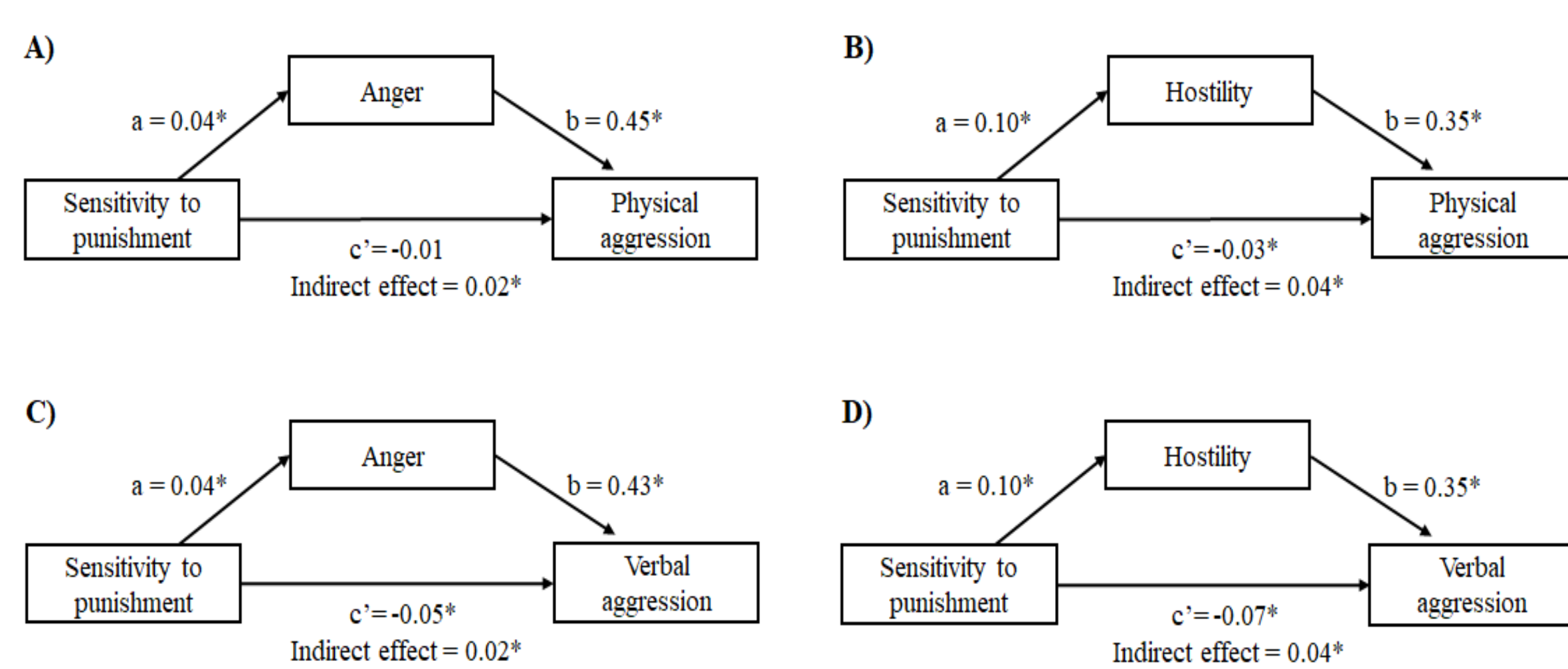


Figure 1. Mediation models and path coefficients (*statistically significant).

- Higher sensitivity to punishment is related to higher levels of anger and hostility.
- A positive indirect effect of sensitivity to punishment on physical and verbal aggression through the mediating role of anger and hostility.
- A significant negative direct effect of sensitivity to punishment on physical and verbal aggression (controlling for the effect of hostility or anger).

Study 2

Aims and hypotheses

The aim was to replicate the results of Study 1 and investigate the role of emotion regulation ability in the relationship between sensitivity to punishment and aggression.

H1. Emotion regulation ability is related to lower levels of aggression and sensitivity to punishment.

H2. The emotion regulation ability acts as a moderator (protective factor) of the effect of sensitivity to punishment on the four types of aggression.

H3. The indirect effects of sensitivity to punishment on physical and verbal aggression via anger and hostility (see Study 1) are moderated by emotion regulation ability.

Participants

229 participants (56.77%; 21.52 years).

Instruments

The Mayer–Salovey–Caruso Emotional Intelligence Test, regulation branch (MSCEIT).

Results

Table 2. Descriptive statistics and Pearson's correlations of the studied variables.

| | x̄(SD) | 1 | 2 | 3 | 4 | 5 |
|---------------------------|----------------|-------|--------|-------|-------|-------|
| (1) Sensit. to punishment | 4.48 (2.81) | — | | | | |
| (2) Physical aggression | 1.86 (0.68) | .02 | — | | | |
| (3) Verbal aggression | 2.83 (0.71) | -.12 | .34** | — | | |
| (4) Anger | 2.58 (0.81) | .14* | .56** | .47** | — | |
| (5) Hostility | 2.64 (0.75) | .38** | .35** | .28** | .44** | — |
| (6) Emotion regulation | 105.93 (11.19) | -.04 | -.32** | -.09 | -.21* | -.19* |

* $p < .05$ ** $p < .001$

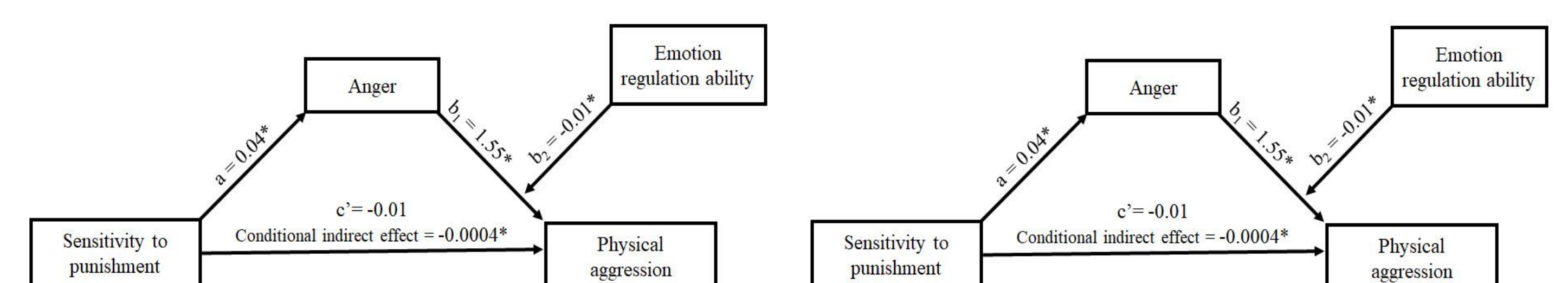


Figure 2. Moderated mediation models and path coefficients (*statistically significant).

- The results of Study 2 replicate those from Study 1.
- Higher emotion regulation ability was related to lower levels of aggression.
- Emotion regulation ability did not moderate the effect of sensitivity to punishment on aggression.
- The indirect effect of sensitivity to punishment on physical aggression (through the mediating effect of anger and hostility) was moderated by emotion regulation ability.

Discussion

- The results suggest that sensitivity to punishment can play a protective role whilst also constituting a risk factor: 1) A higher sensitivity to punishment would have a negative direct effect on behavioural aggression, inhibiting physical and verbal aggressive behaviours in order to avoid negative consequences; 2) the sensitivity to punishment would also imply a positive indirect effect on physical and verbal aggression via an increase in anger and hostility.
- The indirect effect of sensitivity to punishment on physical and verbal aggression is moderated by emotion regulation ability.
- These results could help to inform the design of prevention and intervention programs for reducing the impact of aggressive behaviour on our society.

References

Anderson, C. a, & Bushman, B. J. (2002). Human Aggression. *Annual Review of Psychology*, 53(1), 27–51.
Ramírez, J. M., & Andreu, J. M. (2006). Aggression, and some related psychological constructs (anger, hostility, and impulsivity). *Neuroscience and Biobehavioral Reviews*, 30(3), 276–291.
Pederson, C. A., Fite, P. J., & Bortolato, M. (2018). The role of functions of aggression in associations between behavioral inhibition... *J Aggr Maltr Traum*, 27(8), 811–830.

Article available in: Megías-Robles, A., Gómez-Leal, R., Gutiérrez-Cobo, M. J., Cabello, R., & Fernández-Berrocal, P. (2021). The Role of Sensitivity to Reward and Punishment in Aggression. *Journal of interpersonal violence*.

Funding:

Junta de Andalucía, project: EMERGIA20_00056).
Plan propio Universidad de Málaga, project: B1-2019_08

Contact: amegias@uma.es