

Effect of a Psychoeducational Intervention on Displaced Aggression

Syota TANNO* and Miyoshi ISOBE**

ABSTRACT

This study examined the effect of a psychoeducational intervention on displaced aggression with a university student sample. We predicted that separating the activation of the aggressive network evoked by provocation from a trigger would decrease displaced aggression. We conducted diary study consisted of psychoeducation about empirical studies and the theoretical model regarding triggered displaced aggression, and the efficiency of separating the activation of the aggressive network and the trigger, and asked participants to engage in distraction when they experienced a provoking event. As expected, aggression decreased through psychoeducational intervention and this decrease was maintained at the same level one week later.

【Keywords: displaced aggression, intervention, distraction】

Displaced Aggression and Direct Aggression

Displaced aggression refers to behaviour that occurs when an individual experiences a provoking event and then directs aggression towards a third party (Dollard, Doob, Miller, Mowrer, & Sears, 1939; Hovland & Sears, 1940). For example, after being berated by his coach Allen in a soccer game, Taro assaulted Matt a rookie player on the team. Triggered displaced aggression (TDA) refers to displaced aggression that occurs because of a triggering event (Dollard, 1938). In the previous example, triggered displaced aggression would have occurred if Taro assaulted Matt in response to his impolite manner.

Displaced aggression explains specific types of violent behaviour compared to direct aggression. Denson, Pedersen, & Miller (2006) conducted regression analyses to regress scores from the Driving Vengeance Questionnaire (Wiesenthal, Hennessy, & Gibson, 2000) and the Abuse Within Intimate Relationships Scale (Borjesson, Aarons, & Dunn, 2003) on scores from the Buss and Perry Aggression Questionnaire (BAQ; Buss & Perry, 1992), which measures the tendency to engage in direct aggression, and the Displaced Aggression Questionnaire (DAQ), which measures the tendency to engage in displaced aggression. Results showed that although DAQ predicted road rage and domestic abuse, BAQ did not.

Mechanism of Displaced Aggression

Pedersen, Gonzales, & Miller (2000) constructed a TDA paradigm that enables experimental examinations of displaced aggression in laboratory settings. In this paradigm, participants experience an aversive event

at Time 1 (provocation), a triggering event at Time 2 (trigger), and then complete aggression measures. In Study 2 of Pedersen et al. (2000), undergraduate students participated in a 2 (provocation: yes or no) × 2 (trigger: yes or no) between-participants experiment. Results showed that when participants had not been previously provoked, a triggering behaviour by the confederate had no effect on aggressive responses. However, when initially provoked but then not triggered, participants displayed the least aggression among the four conditions. In contrast, when provocation was followed by a subsequent triggering behaviour by the confederate, it resulted in the most aggression. Moreover, mediation analyses showed that for participants who had been provoked, subjective feelings of displeasure concerning the triggering event mediated the effect of the trigger on aggression.

Miller, Pedersen, Earleywine, & Pollock (2003) proposed a theoretical model of triggered displaced aggression that explains the triggering mechanism of displaced aggression. Aggressive thoughts, emotions, and behavioural tendencies are linked together in an associative network. Aversive events (e.g. provocation) prompt negative affect. Negative affect, in turn, prompts two different reactions: fight tendencies, which are associatively linked with aggression, and flight tendencies, which are associatively linked with fear. If fight tendencies are activated, then aggressive thoughts, feelings, and behavioural tendencies are also activated, because they are part of the same associative network. For example, angry feelings and increased arousal levels might bring to mind aggressive thoughts. When

* Faculty of Education, Shimane University

** Mukogawa Women's University

the network is activated, aggressive behaviour is more likely.

What explains the time lag between initial provocation and the trigger? The theoretical model proposes the importance of angry rumination. Angry rumination is a cognitive activity that maintains the activation of the aggressive network. Therefore, even when there is a time lag between provocation and trigger, aggressive behaviour is more likely. Bushman, Bonacci, Pedersen, Vasquez, & Miller (2005) validated the importance of angry rumination as the cognitive activity between the Time 1 provocation and the Time 2 trigger, by examining the effects of rumination on triggered displaced aggression. In Study 1, provoked participants who ruminated for 25 minutes were more aggressive toward the target than were distracted participants. Provocation-induced negative affect was positively related to aggression but only among those who ruminated. Study 2 conceptually replicated Study 1, and also found that the more negatively the participant reacted to the trigger, the more likely the trigger was to increase displaced aggression. Study 3 replicated the findings of Study 1 and Study 2, using an 8-hour rumination period. In addition, Vasquez, Pedersen, Bushman, Kelley, Demeestere, & Miller (2013) showed that angry rumination augmented displaced aggression but distraction did not.

Present Study

The present study examines the effect of a psychoeducational intervention on displaced aggression with a university student sample. Inspection of the theoretical model of triggered displaced aggression (Miller et al., 2003) suggests that separating the activation of the aggressive network evoked by provocation from the trigger decreases displaced aggression. Bushman et al. (2005) clarified that engaging in distraction when provoked is effective in reducing displaced aggression resulting from the triggering event. To our knowledge, this is the first study to examine the effect of a psychoeducational intervention on displaced aggression.

Method

Participants

Thirty-one undergraduates (22 women, 9 men, mean age = 18.68, $SD = 0.60$) participated in the study in exchange for course credit. The intervention group consisted of 17 participants (13 women, 4 men, mean age = 18.59, $SD = 0.62$) and control group consisted of 13 participants (9 women, 5 men, mean age = 18.79, $SD = 0.58$). Participants were randomly assigned to one of the

two conditions.

Design

We conducted a pre-test, post-test, and follow-up test to examine the effect of a psychoeducational intervention on displaced aggression. On Day 1 of the study, we conducted psychoeducation, and participants completed measures regarding the extent to which they engage in distraction and displaced aggression in daily life (pre-test). Throughout the study, from Day 1 to Day 6, participants described emotional experiences of the day. On Day 7, participants completed measures regarding the extent to which they engaged in distraction and displaced aggression in the previous 7 days including the current day (post-test). On Day 14, to examine the sustained effect of the psychoeducational intervention, we asked participants to complete measures regarding the extent to which they engaged in distraction and displaced aggression in the previous 7 days, including the current day (follow up-test). The period of the study was 14 days.

Intervention

Participants in the intervention condition received psychoeducation on Day 1. Lectures were given about empirical studies and the theoretical model regarding triggered displaced aggression. In addition, we lectured about the efficiency of separating the activation of the aggressive network and the trigger, and asked participants to engage in distraction when they experienced a provoking event. From Day 1 to Day 6, these participants described emotional experiences of the day, and in particular, provoking events. Participants in the control condition were told that this study focused on emotional experiences of university students in daily life. From Day 1 to Day 6, these participants described their emotional experiences of the day.

Measures

(a) **Distraction** One item assessed the extent to which participants engaged in distraction: 'When someone or something makes me angry, I distract my anger by engaging in a hobby or something similar'. This item was assessed on an 11-point Likert scale ranging from 1 (strongly disagree) to 11 (strongly agree), with midpoints of 8 for agree and 4 for disagree. The expression of the phrase was arranged to fit the context of the pre-test, post-test, and follow up-test to assess distraction during the preceding days.

(b) **Displaced aggression** Two items assessed the extent to which participants engaged in displaced aggression: 'When someone or something makes me angry, I take it out on another person (family members, friends, lovers, and/or acquaintances) by striking and/or

kicking’ and ‘When someone or something makes me angry, I take it out on another person (family members, friends, lovers, and/or acquaintances) by swearing’ . Each item was assessed on an 11-point Likert scale ranging from 1 (strongly disagree) to 11 (strongly agree), with midpoints of 8 for agree and 4 for disagree. The expression of the phrase was arranged to fit the context of the pre-test, post-test, and follow up-test to assess displaced aggression during the preceding days.

(c) **Displaced aggression questionnaire** Thirty-one items assessed the general tendency to engage in displaced aggression. We used the Japanese version of the Displaced Aggression Questionnaire (Tanno, 2008). Each item was rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) at the pre-test.

Results

Distraction

We calculated average scores and standard deviations of distraction for the intervention and control group. For the intervention condition, scores were as follows: pre-test ($M = 6.47, SD = 1.77$), post-test ($M = 9.12, SD = 1.05$), and follow-up test ($M = 8.71, SD = 1.36$). For the control group, scores were as follows: pre-test ($M = 7.00, SD = 2.29$), post-test ($M = 7.79, SD = 2.12$), and follow-up test ($M = 7.14, SD = 2.32$).

To assess the effectiveness of the manipulation, we conducted a 2 (intervention: intervention, control, between participants) \times 3 (time: pre-test, post-test, follow-up test, within participants) ANOVA on distraction. Results indicated a significant interaction, ($F(2, 58) = 4.93, p = .011$). The simple main effect of intervention was significant at the post-test ($F(1, 29) = 5.19, p = .030, \eta_G^2 = .15, \omega_G^2 = .12$) and follow-up test, ($F(1, 29) = 5.48, p = .026, \eta_G^2 = .16, \omega_G^2 = .13$), but not at the pre-test ($F(1, 29) = 0.53, p = .473, \eta_G^2 = .02, \omega_G^2 = .00$). In addition, for the intervention condition, the simple main effect of time was significant ($F(2, 32) = 26.91, p < .001, \eta_G^2 = .41, \omega_G^2 = .39$), indicating that the score for distraction at the pre-test was lower than that at the post-test and follow-up test, and there was no difference between the post-test and follow-up test. For the control condition, the simple main effect was not sizable ($F(2, 26) = 0.82, p = .452, \eta_G^2 = .02, \omega_G^2 = .00$). These results show that distraction increased through psychoeducational intervention, and that this increase was maintained at the same level throughout the post-test and follow-up test.

Aggression

We calculated average scores and standard deviations

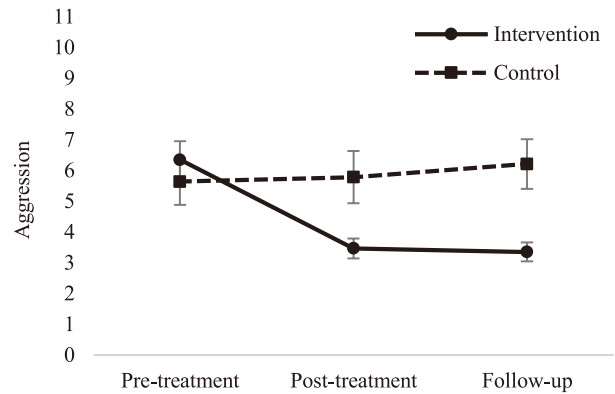


Figure 1. Effect of a psychoeducational intervention on displaced aggression. Error bars represent the standard error for that condition.

of composite aggression measures for the intervention and control groups. For the intervention condition, scores were as follows: pre-test ($M = 6.35, SD = 2.50$), post-test ($M = 3.47, SD = 1.33$), and follow-up test ($M = 3.35, SD = 1.27$). For the control group, scores were as follows: pre-test ($M = 5.64, SD = 2.82$), post-test ($M = 5.79, SD = 3.19$), and follow-up test ($M = 6.21, SD = 3.02$).

We conducted a 2 (intervention: intervention, control, between participants) \times 3 (time: pre-test, post-test, follow-up test, within participants) ANOVA on aggression. Results indicated a significant interaction ($F(2, 58) = 15.35, p < .001$, Figure 1). The simple main effect of intervention was significant at the post-test ($F(1, 29) = 7.43, p = .011, \eta_G^2 = .20, \omega_G^2 = .17$) and follow-up test ($F(1, 29) = 12.64, p = .001, \eta_G^2 = .30, \omega_G^2 = .27$), but not at the pre-test ($F(1, 29) = 0.55, p = .463, \eta_G^2 = .02, \omega_G^2 = .00$). In addition, for the intervention condition, the simple main effect of time was significant ($F(2, 32) = 31.94, p < .001, \eta_G^2 = .39, \omega_G^2 = .37$), indicating that the aggression scores at the post-test and follow-up test were lower than that at the pre-test, and that there was no difference between the post-test and follow-up test. For the control condition, the simple main effect was not sizable ($F(2, 26) = 0.55, p = .582, \eta_G^2 = .01, \omega_G^2 = .00$). These results show that aggression decreased through psychoeducational intervention, and that this decrease was maintained at the same level throughout the post-test and follow-up test.

Correlational Analysis

We conducted a correlation analysis on change scores (pre-test minus post-test of composite aggression measures, i.e. decrease) and DAQ for the intervention group. Results showed that the correlation was marginal ($r = .418, p = .095$). Specifically, the intervention was more effective for individuals high in trait displaced aggression.

Discussion

This study examined the effect of a psychoeducational intervention on displaced aggression. We predicted that separating the activation of the aggressive network evoked by provocation from a trigger would decrease displaced aggression and employed a psychoeducational intervention using distraction. As expected, aggression decreased through psychoeducational intervention and this decrease was maintained at the same level one week later. This study supports the theoretical model of triggered displaced aggression (Miller et al., 2003) and is the first study to examine the effect of an intervention on displaced aggression.

Future Directions

Future studies should examine the effects of interventions and contribute to decreasing displaced aggression. We employed a psychoeducational intervention with a university sample and suggested that the intervention was more effective for individuals high in trait displaced aggression, therefore, prevention of violent behaviour such as road rage and domestic abuse may be possible for individuals high in trait displaced aggression. In addition, our intervention employed distraction, however, recent empirical studies emphasize that reappraisal of provocation may suppress aggressive behaviour (Denson, Moulds, & Grisham, 2012). Therefore, intervention with reappraisal may be beneficial. Moreover, we did not examine direct aggression. A more valid intervention for aggression may be obtained by comparing different types of aggression. We hope that future researchers will explore these ideas further.

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