## Vol. 13 No. 2 (2022) 40-44



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# Sincerity Is Better Than Forgiveness: What the Transgressor Expects in an Apology

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Reconciliation between individuals in a past conflict occurs in many animals, including humans. In humans, the transgressor's apology and the victim's forgiveness are the primary factors that lead to reconciliation and have been the subject of numerous studies. The current study focused on the intentionality of the transgression and the cost of the apology, and asked the participants to estimate whether the presence of those factors from the transgressor's perspective would promote the victim's forgiveness following Ohtsubo and Higuchi's (2022) experimental procedure. The results of a vignette study with 603 Japanese participants showed that the expectations of sincerity and forgiveness were higher when the transgression was not intentional than when it was, and when the apology was more costly than non-costly. However, a significant interaction effect was not found. These results are consistent with previous studies and indicate that intention and apology cost may facilitate the reconciliation process commonly shared between victims and transgressors. Furthermore, exploratory analyses showed the mediational effect of the expectation of sincerity between the costly apology and the expectation of forgiveness. We discussed the implications of the relationship between victims' perceived sincerity and forgiveness.

# **Keywords**

costly apology, forgiveness, transgressor's perspective, sincerity, intentionality

# Introduction

Reconciliation between individuals who had a past conflictual relationship has been widely observed in various animals (e.g., Cords & Thurnheer, 1993; de Waal, 2000; Ikkatai et al., 2016). Many studies have shown that an apology by the transgressor and the forgiveness by the victim lead to reconciliation in humans (e.g. Fehr et al., 2010; Kirchhoff et al., 2012; McCullough et al., 2014; Schumann, 2012; Schumann & Dragotta, 2021; Tabak et al., 2012). However, not many studies have tested reconciliation factors common to both the victim and the transgressor (except Ohtsubo & Yagi, 2015). The current study focused on the psychology of the transgressors in the mechanism of reconciliation. Specifically, we examine the transgressor's viewpoint according to Ohtsubo and Higuchi's (2022) research, which manipulated the intentionality of transgression and the cost of apologies, and measured both perceived sincerity and forgiveness intention on the part of the victim. In doing so, we discuss whether factors that promote reconciliation are common to both victims and transgressors.

Research on victim perspectives has revealed factors that promote forgiveness through apologies by transgressors (e.g., Kirchhoff et al., 2012; McCullough et al., 2014; Tabak et al., 2012). For example, apologies associated with feelings of shame (Giner-Sorolla et al., 2008) and accompanied by empathic expressions toward the victim (Nadler & Liviatan, 2006) are shown to potentially promote forgiveness. A review by Blatz and Philpot (2010) cites remorse, empathy, assigning responsibility, and sincerity as factors that mediate apology and forgiveness. The current study focuses on the effect of sincerity in reconciliation.

Victims' perceived sincerity is promoted by the transgressor's costly apology (e.g., Ohtsubo et al., 2020; Ohtsubo et al., 2018; Ohtsubo et al., 2012). Ohtsubo and Watanabe (2009) proposed a costly signaling model of apology based on Zahavi's (1975) handicap principle, and showed that the perception of sincerity and forgiveness were promoted by costly apologies, such as canceling an important appointment or paying money (Ohtsubo & Watanabe, 2009).

Recent research has shown that the intentionality of the transgression influences perceived sincerity and forgiveness independent of the apology cost. The results reported in the appendix of Ohtsubo and Watanabe (2009) showed the possibility that victims forgive the transgressor regardless of the costliness of apology when the unintentionality of transgressions was apparent. Based on that study, Ohtsubo and Higuchi (2022) manipulated intentionality and the apology cost to measure forgiveness and perceived sincerity. Results showed significant main effects of intentionality and apology costs respectively, but no significant interaction effect on the perception of sincerity and forgiveness, and the apology cost's effect size on the perceived sincerity was larger than that on forgiveness regardless of the intentionality conditions. These results indicate that the intentionality of transgression and the cost of the apology independently affect the perception of sincerity and forgiveness respectively, and a costly apology has a greater effect on the perception of sincerity rather than forgiveness.

Although costly apologies and unintentionality of transgression have been shown to promote forgiveness and potentially lead to reconciliation, most of these studies were conducted from the victim's perspective (e.g.,

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Ohtsubo & Watanabe, 2009). However, do transgressors, like victims, believe that costly apologies are effective for the perception of sincerity rather than forgiveness? It is crucial to examine this from the transgressor's perspective to understand the reconciliation process, considering whether they believe that the unintentionality of transgression and the costliness of apology leads to forgiveness. Specifically, we modify the scenarios and questions used in Ohtsubo and Higuchi (2022) to reflect the transgressor's perspective; that is, the expectation of forgiveness (do participants as transgressors expect the victim to forgive) and the expectation of perceived sincerity (do participants as transgressors expect the victims to perceive the sincerity of the transgressor's apology) is measured.

We consider it unnatural to have participants assume a situation in which the transgressor's intention is ambiguous from the transgressor's perspective; thus, we exclude the ambiguous intention condition and set the intentionality of transgression to two conditions: malicious and no intention. We then test two hypotheses; there will be significant main effects of intentionality and apology costs and no significant interactions on (1a) the expectations of forgiveness and (1b) the expectation of sincerity as the dependent variables; and (2) in both the no intention and malicious conditions, the effect size for expectations of sincerity will be significantly larger than that for expectations of forgiveness. Ohtsubo and Higuchi (2022) and other previous studies (Schumann, 2012; Wohl et al., 2013) have found that from the victim's perspective, a significant positive correlation has been confirmed between perceived sincerity and forgiveness. From the transgressor's perspective, if they expect the victim to perceive their sincerity, they expect the victims to forgive them. Therefore, the current study also tests the hypothesis that (3) there will be a significant positive correlation between the expectation of perceived sincerity and forgiveness.

#### **Methods**

## Participants & design

The experimental design was 2 (apology cost: costly vs. not costly) x 2 (intentionality: malicious vs. no intention), as between-participants factors. Similar to Ohtsubo and Higuchi (2022), participants were limited to employed individuals aged 20–40 years based on the content of the scenarios; Lancers (https://www.lancers.jp/) was used to recruit participants, paying 150 yen per case so that there were 100 participants in each condition. As a result, 603 participants (258 women, 341 men, 4 do not know or other, mean age  $\pm SD = 33.55 \pm 5.15$  years) were included in the analysis.

#### Procedure

Participants completed a web-based questionnaire created by Qualtrics (https://www.qualtrics.com). They first answered their age and employment status. Those who did not meet the participation criteria of being employed between the ages of 20 to 40 were not allowed to proceed. Participants who met the criteria read hypothetical violation scenarios used in Ohtsubo and Higuchi (2022) modified to reflect the transgressor's perspective. There

Takahashi & Mifune LEBS Vol. 13 No. 2 (2022) 40-44

were four scenarios, and four versions (conditions) were set for all scenarios, depending on whether the transgression had malicious intent or was unintentional, and whether a costly or non-costly apology was made. The scenario was divided into two parts, with the first part describing the scene in which the protagonist did something bad to the victim, and the second part describing the scene in which the protagonist apologized to the victim. For example, the first part of one scenario described a scene in which the protagonist (P) sent a series of text messages to his friend (F) at work. In the unintentional condition, the P was described as being unaware that F was at work. In the malicious condition, the P was described as being aware that F was at work. Immediately after these first parts, participants responded to how angry they thought the F would be with the P and how likely they would be to dissolve the friendship from the P's perspective. Note that this questionnaire item was not used in the current analysis, as was also the case in Ohtsubo and Higuchi's (2022) study.

The second part of the scenario described either a costly or non-costly apology for the P. Under the costly apology condition, for example, P was described as having traveled over two hours to F's house to apologize. Under the non-costly apology condition, P was described as having apologized the next time he saw F. After reading the second part of the study, participants were asked to rate expectations of sincerity comprising three items, such as "How sincere does your friend think your apology is?" (Cronbach's  $\alpha = .86$ ), and expectations of forgiveness comprising five items, such as "How willing is your friend to forgive you?" ( $\alpha = .92$ ) for each of the four scenarios. A total of 8 items of expectations of sincerity and forgiveness were randomly assigned to each participant. Note that Ohtsubo and Higuchi (2022) also measured the relationship of F and perceived exploitation risk. However, we believe that these were unnecessary for hypothesis testing, which is why they were excluded. Participants finally completed responding to gender and political position. The time taken to complete the questionnaire was roughly 8 minutes.

## Results

The results of expectations of forgiveness and sincerity in each condition are shown in Figure 1. The ANOVA with apology cost and intentionality as independent variables and expectations of sincerity as the dependent variable revealed significant main effects of intentionality ( $F_{(1,599)}$ = 27.35, p < .001,  $\eta_p^2 = .036$ ) and apology cost ( $F_{(1,599)}$  = 179.13, p < .001,  $\eta_p^2 = .230$ ), but the interaction effect was not significant ( $F_{(1,599)} = 1.69$ , p = .194,  $\eta_p^2 = .003$ ). The ANOVA with expectations of forgiveness as the dependent variable revealed significant main effects of intentionality ( $F_{(1,599)} = 39.60$ , p < .001,  $\eta_p^2 = .059$ ) and apology cost ( $F_{(1,599)} = 14.62$ , p < .001,  $\eta_p^2 = .024$ ), but the interaction effect was not significant ( $F_{(1,599)} = 1.77$ , p = .184,  $\eta_p^2 =$ .003). Both expectations of sincerity and forgiveness were higher for unintentional transgression than for malicious intention, and for costly than for non-costly apologies. These results are similar to those of Ohtsubo and Higuchi (2022). Therefore, Hypotheses 1a and 1b are supported.

Next, we compared the correlations between apology costs and expectations of sincerity, and between apology costs and forgiveness expectations in the no intention and malicious intention conditions respectively. As in Ohtsubo and Higuchi's (2022) study, both the correlations between perceived sincerity and forgiveness expectations have apology costs as a common variable. Therefore, a test of dependent correlation was conducted. The correlation coefficients for each condition are shown in Figure 2. The results showed that the correlation between the apology cost and the expectations of sincerity was significantly higher than that between the apology cost and the expectation of forgiveness (.50 vs. .21, Hotelling's  $t_{(297)}$ = 6.23, p < .001) in the no intention condition. Further, in the malicious intention condition, the correlation between apology costs and expectations of sincerity were significantly higher than the correlation between apology costs and expectations of forgiveness (.46 vs. .10, Hotelling's  $t_{(300)} = 7.52, p < .001$ ). These results are also consistent with those of Ohtsubo and Higuchi (2022). Therefore, Hypothesis 2 is supported.

A test of the significance of correlation coefficient revealed a significant positive correlation (r = .57, p < .001) between the expectation of sincerity and the expectation of forgiveness. Thus, Hypothesis 3 was supported.

The apology cost was correlated with both expectations of sincerity and forgiveness and was more strongly correlated with the former than the latter. Thus, a process in which the apology cost influences forgiveness mediated by the expectation of sincerity could be assumed. Accordingly, we conducted an exploratory mediation analysis (Figure 3). The Sobel test showed a significant mediation effect (z = -10.52, p < .001). The bootstrap estimate of the indirect effect was -0.41, with a 95% confidence interval that did not cross zero (upper: -0.50, lower: -0.33). Thus, the results indicate that sincerity expectations mediate the relationship between apology costs and forgiveness expectations.



Figure 1. Distributions of (a) expectations of forgiveness and (b) expectations of sincerity as a function of apology cost and intention.



**Figure 2.** Correlation between apology cost and expectations of sincerity (upper) and between apology cost and expectations of forgiveness (lower) as a function of the intention condition.

Takahashi & Mifune LEBS Vol. 13 No. 2 (2022) 40-44



**Figure 3.** Mediation analysis of sincerity expectation on the effect of apology cost on forgiveness expectation.

Note. Path coefficients indicate the standardized partial regression coefficients. The parenthetical number indicates the parameter estimate before including the mediator. \*\*\*p < .001

# Discussion

The current study focused on the psychology of the transgressors in the mechanism of reconciliation based on Ohtsubo and Higuchi's (2022) experimental materials and research design. Specifically, we examined whether transgressors expect the victim's perceived sincerity and forgiveness after malicious-intentional or unintentional transgressions, and non-costly or costly apologies. Scenario experiments indicated that both expectations of sincerity and forgiveness were promoted more when there was no intention than when there was a malicious intention, and when the apology was more costly than that was non-costly. However, there were no interaction effects between intentionality and the apology cost in both expectations of sincerity and forgiveness. The apology cost's effect size on the expectation of sincerity was larger than that on the expectations of forgiveness. These results are consistent with those of Ohtsubo and Higuchi (2022), who conducted a similar experiment from the victim's perspective. Thus, our results indicate that not only do victims promote reconciliation when there is no intentional perpetrating or when there is an apology cost, but also that transgressors may be able to appropriately predict those effects. In other words, the intentionality and the apology cost may promote the process of reconciliation commonly shared between victims and transgressors.

Exploratory analyses showed the mediational effect of the expectation of sincerity on the relation between costly apology and expectation of forgiveness. Extant literature has shown that the apology cost influences perceived sincerity and forgiveness from the victim's perspective (e.g., Ohtsubo et al., 2012). Ohtsubo and Higuchi (2022) also showed that the apology cost has a more significant effect size on perceived sincerity than forgiveness. These studies did not report any mediational effect of sincerity and did not conduct the experiment from the transgressor's viewpoint. Future studies must examine the replicability of the current results and whether a similar mediating effect occurs from the victim's perspective.

One limitation of this study is that transgressors' apology or apology intention was not measured. While the expectations of sincerity and forgiveness may promote apology, other factors may also influence apology. For example, people feel more guilt about unintentional than intentional transgression and believe that an apology is necessary (Leunissen et al., 2012), and the higher the guilt in unintentional transgression, the greater the apology

Takahashi & Mifune LEBS Vol. 13 No. 2 (2022) 40-44

cost (Watanabe & Ohtsubo, 2012). Thus, if guilt promotes apology in unintentional transgression, then results may differ from the current study when the dependent variable is the apology. Future experiments measuring apology or apology intention are required to examine the relationship between the intentionality of transgression and apology cost.

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## **Author contributions**

All authors developed the study concept and design, RT collected and analyzed data, and wrote the first manuscript. All authors revise and finalize the manuscript.

### **Ethical statement**

This study's experimental procedure was approved by the Ethics Committee of Kochi University of Technology (#173). All participants gave informed consent.

## Data accessibility & program code

All data and analysis code are available at https://osf.io/mrqnx/

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Takahashi & Mifune LEBS Vol. 13 No. 2 (2022) 40-44

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