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Money isn't all that Matters: The use of Financial Compensation and Apologies to Preserve  
Relationships in the Aftermath of Distributive Harm

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### Abstract

Previous studies have shown that when a recipient suffers from financial harm, allocators can use repair strategies that address financial *or* relational interests to promote relationship repair. Research to date, however, has neglected to study the effects of financial *and* relational strategies on relationship preservation simultaneously. In the present contribution, we examine this question. Based on the equality norm, we hypothesized that a financial compensation that fails to redress the harm suffered by the recipient (i.e., undercompensation) will be less effective in preserving a relationship than a financial compensation that do redress it (i.e., equal compensation and overcompensation). Moreover, we expected that relational strategies (i.e., apologies) would promote relationship preservation in contexts where the financial compensation alone is insufficient to redress the harm to the recipient, thus in cases of undercompensation. The results of a pilot study and a lab experiment using the dictator game confirmed our hypotheses. Consequently, our studies demonstrate that even in purely economic settings, relational strategies (i.e., apologies) can facilitate relationship preservation over and above financial strategies (i.e., financial compensation).

*Keywords:* financial compensation; apology; equality norm; relationship preservation; dictator game

*JEL Classification:* D23 - Organizational Behavior

*PsycINFO Classification:* 3000 - Social Psychology; 3020 - Group & Interpersonal Processes

## 1. Introduction

In economic situations in which monetary resources have to be allocated between two or more parties, most people prefer allocations to be divided fairly (Camerer & Thaler, 1995; Handgraaf, Van Dijk, & De Cremer, 2003; Pillutla & Murnighan, 1996). One allocation norm that is particularly favored in this context is the equality norm (Handgraaf et al., 2003; Messick, 1993; Samuelson & Allison, 1994). The equality norm is a social standard that dictates an equal allocation of the resources between all the members of some specified group (Deutsch, 1975; Kahn, 1972; Lerner, 1975; Leventhal, 1976; Sampson, 1969, 1975). According to Straub and Murnighan (1995), these 50-50 offers are regarded as “perfectly fair”, because they satisfy most, if not all, criteria for fairness (see Allison & Messick, 1990; also see Pillutla & Murnighan, 1996). Consequently, allocations that meet the equality norm are associated with a range of positive consequences, such as trust (e.g., De Cremer, 2010; Desmet, De Cremer, & Van Dijk, 2011) and cooperation (e.g., Bottom, Daniels, Gibson, & Murnighan, 2002). Offers that violate the equality norm, however, are often perceived as unfair, and consequently may evoke a host of negative reactions, like negative emotions (e.g., anger, disappointment, sadness, and wounded pride; see Fehr & Baldwin, 1996; Jones & Burdette, 1994; Joskowicz-Jabloner & Leiser, 2011; Pillutla & Murnighan, 1996) and behaviors (e.g., verbal aggression; see Haden & Hojjat, 2006; Ochs & Roth, 1989). One of the most important consequences of such violations is that trust in the allocating party decreases (Bottom et al., 2002; Bottom, Eavey, & Miller, 1996; De Cremer, 2010; Kim, Ferrin, Cooper, & Dirks, 2004; Schweitzer, Hershey, & Bradlow, 2006). Moreover, following interpersonal transgressions, victims often experience some motivation to seek revenge or to avoid the transgressor (i.e., transgression-related interpersonal motivations or TRIMs, see McCullough, Bellah, Kilpatrick, & Johnson, 2001; McCullough, Fincham, & Tsang, 2003; McCullough & Hoyt, 2002; McCullough, Root, & Cohen, 2006). Hence, violations of the equality norm may

threaten the continuation of the relationship between the allocator and the recipient, thus potentially denying them the economic benefits of future cooperation.

For this reason, it is important that the allocator reduces negative reactions and promotes the continuation of the relationship after unfair resource allocations. In this respect, it is important that people also possess cognitive forgiveness mechanisms designed to change vengeful motivations and promote the restoration of relationships (Burnette, McCullough, Van Tongeren, & Davis, 2012). When victims forgive, they become less avoidant, less vengeful, and more benevolent towards the transgressor (McCullough et al., 2006). Previous studies have identified several factors that may promote forgiveness (e.g., high relationship value and low exploitation risk; see Burnette et al., 2012). Particularly interesting, however, are positive actions that transgressors can employ to promote forgiveness (see Jones & Davis, 1965; McCullough, 2000; McCullough, Rachal, Sandage, Worthington, Brown, & Hight, 1998; Ristovski & Wertheim, 2005; Tabak, McCullough, Luna, Bono, & Berry, 2012). In the context of financial exchanges, one prominent response is to offer a financial compensation (e.g., Desmet et al., 2011). By providing financial compensation, the transgressor addresses his or her misbehavior by returning a portion of the resources to the recipient, thereby reducing or undoing the financial damage that was sustained through the transgression. Because concerns about the outcome dominate decisions in economic decision making situations (Camerer, 1995), compensating the recipient may promote the continuation of the relationship (De Cremer, 2010; Desmet et al., 2011). Nevertheless, some scholars have argued that financial compensation alone may not be sufficient to restore the relationship (e.g., see Okimoto & Tyler, 2007). Specifically, as unfair allocations constitute a violation of the norms of interpersonal trust and fairness, responses that address these relational aspects of the transgression may also be required (Tyler, Boeckmann, Smith, & Huo, 1997). One such response is to apologize for the harm. Apologies communicate that the transgressor feels

remorse and is willing to take responsibility for maintaining the relationship (Scher & Darley, 1997). In this way, apologies constitute a non-financial means of addressing transgressions (e.g., Kim, Dirks, & Cooper, 2009; Lazare, 2004) that satisfies relational concerns by affirming the victim's social standing and respect for the victim (Barclay & Skarlicki, 2008).

So far, little research has investigated the impact of financial compensation on the restoration of relationships (Desmet et al., 2011; De Cremer, 2010). Moreover, hardly any research has addressed the relationship between financial and relational responses to fairness violations. In the current studies, we focus on financial compensation and apologies, and compare their effectiveness as a means to facilitate relationship preservation in the aftermath of distributive harm. When a transgression has been made and a compensation or an apology is offered, victims may choose to continue or discontinue their relationship with the transgressor; therefore, we will focus on relationship preservation as the dependent variable.

### 1.1 Research aims

In the present contribution, we aim to address two major questions. First, we aim to investigate the effectiveness of financial compensation as a means to preserve a relationship after an unfair allocation of resources. Previous research has provided some indication that financial compensation may be a useful way to repair relationships (Desmet et al., 2011); however, it is unclear how the amount of compensation may affect its effectiveness. To determine the conditions that are necessary for compensation to be effective, we directly compare the effectiveness of three levels of compensation: undercompensation (i.e., compensation that reduces the inequality of the allocation but fails to restore equality), equal compensation (i.e., compensation that returns sufficient resources to restore equality), and overcompensation (i.e., compensation that not only restores equality but exceeds it, resulting in an outcome that is more favorable to the victim than to the offender). Secondly, we

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examine when relational responses may be more effective than responses that directly address the financial aspects of transgressions in promoting willingness to continue the relationship with the transgressor. More specifically, we suggest that relational restoration responses, such as apologies, may be particularly helpful in preserving relationships in situations where the transgressors are unable or unwilling to fully compensate victims for the financial harm inflicted by their transgressions (i.e., in cases of undercompensation).

## 1.2 Financial compensation: An economic perspective

Financial interests dominate in decision-making situations (Camerer, 1995). Moreover, some scholars have argued that in economic exchanges, the continuation of a relationship between the parties involved is driven primarily by a concern for tangible outcomes (e.g., see Lewicki, Wiethoff, & Tomlinson, 2005). Consequently, financial compensation should facilitate the preservation of a relationship because it directly addresses these financial interests.

### 1.2.1 Financial compensation and the equality norm

How might the amount of compensation affect its effectiveness as a means to facilitate relationship preservation? To answer this question, it is important to understand that undercompensation, equal compensation, and overcompensation differ in two distinct dimensions, i.e., the outcomes that compensation provides for the victim and the extent to which the compensation redresses inequality.

First, in terms of economic outcomes, greater compensation yields better outcomes for the victim. This suggests that to the extent that victims' decisions in economic decision making situations depend on financial interests, greater compensation will result in greater willingness to preserve a relationship. Indeed, in line with this argument, previous research

has indicated that overcompensation yields better results than equal compensation and undercompensation (Desmet et al., 2011).

Secondly, undercompensation, equal compensation, and overcompensation also differ in the extent to which they redress inequality. Undercompensation may reduce the inequality that results from an unfair allocation, but it fails to restore equality, and the parties' final outcomes remain unequal. In addition, while overcompensation may result in favorable outcomes for the recipient, it also results in inequality, as the recipient's final outcome exceeds the allocator's final outcome. If compensation is appreciated for the extent to which it redresses inequality, then the effectiveness of undercompensation and overcompensation may not be proportional to their economic consequences. In line with this idea, research on fairness has revealed that people's appreciation of equal and unequal outcomes may not match their objective monetary value (see Adams & Freedman, 1976; Berkowitz & Walster, 1976; De Cremer & Van Kleef, 2009; Van den Bos, Lind, Vermunt, & Wilke, 1997). Rather, the utility that people derive from advantageous inequality is by far exceeded by the disutility they derive from disadvantageous inequality (Loewenstein, Thompson, & Bazerman, 1989). These findings suggest that the relationship between the compensation amount and its effectiveness in preserving the relationship may not be linear (i.e., directly proportional to the recipient's economic outcome); rather, it may be curved so that greater compensation may produce less of a benefit for the relationship after the amount exceeds the equality norm.

While predictions based on these two dimensions may differ regarding the effectiveness of overcompensation, both perspectives suggest that compensation that falls short of equality may be relatively less effective than compensation that restores equality or exceeds it. Nevertheless, undercompensation is attractive for transgressors, who may not be able or willing to sustain the considerable financial costs associated with equal compensation and overcompensation. A real-life example of this is the recent case of a major Belgian bank



that compensated customers who had purchased bonds in southern European countries (an investment that the bank had presented as “safe”). Rather than offering a full compensation, the bank compensated its customers for the nominal amount (i.e., after deduction of costs and with no interests), causing them to suffer losses of at least 15% of their original investment. In response, many of these investors are now planning to sue the bank in order to obtain at least an equal compensation. Moreover, transgressions for which transgressors are unwilling to fully compensate are common in the context of customer service complaints, where customers and companies disagree about the level of service that is acceptable, and the level of compensation that is appropriate in this situation. For example, manufactures and customers may often have different perceptions of the length of the service life that is appropriate for appliances, with customers often expecting a longer service life than manufacturers. This discrepancy is particularly poignant in situations where breakages occur when the warranty has just expired. In this case, customers are likely to receive no or only a small compensation (e.g., a small discount on the purchase of a new appliance), while feeling entitled to a higher compensation (e.g., a free new appliance). Thus, in situations like these, customers are likely to feel undercompensated. As both examples illustrate, transgressors often may offer an undercompensation, even though by doing so it is less likely that the relationship will be preserved. A critical question that arises here is whether the effectiveness of undercompensation can be bolstered through other means. This raises the issue of non-financial strategies. Specifically, we suggest that in situations where transgressors are unwilling or unable to fully compensate the financial harm inflicted by their transgressions, relational restoration responses, such as apologies, may help to preserve the relationship.

### 1.3 Apologies: A relational perspective

It is increasingly acknowledged that non-financial motives are important, even in economic situations (Lax & Sebenius, 1986) in which people also experience relational

1 concerns (Curhan, Elfenbein, & Xu, 2006; De Cremer, 2002). In this respect, unfair  
2 allocations do not only violate distributive fairness concerns, but also constitute a violation of  
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4 relational fairness concerns – which reflect the degree to which people are treated with  
5 politeness, dignity, and respect (Bies & Moag, 1986). This notion suggests that relationship  
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7 repair may also be facilitated by strategies that address relational harm. One prominent way in  
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9 which transgressors can appeal to these relational concerns is by offering an apology (Lazare,  
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11 2004; Kim et al., 2009). Darby and Schlenker (1982, p. 742) define an apology as “an  
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13 admission of blameworthiness and regret for an undesirable event”.  
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20 Apologies address these relational fairness concerns because they convey the message  
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22 that the transgressor admits the wrongdoing, feels remorse for it, and is willing to take  
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24 responsibility for repairing the broken relationship (Barclay & Skarlicki, 2008; Scher &  
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26 Darley, 1997). By doing so, apologies restore the victim’s dignity and affirm respect for the  
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28 victim (Barclay & Skarlicki, 2008), thereby restoring the relational aspects of fairness that  
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30 were harmed by the transgression. A second reason why apologies address these relational  
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32 fairness concerns is because they reduce uncertainty, which may be evoked by the  
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34 transgression (e.g., see the uncertainty management model; Van den Bos & Lind, 2002). An  
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36 apology signals that the transgressor will be trustworthy in the future, which leads to less fear  
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38 and uncertainty about the transgressor’s intentions. In the current context, this would imply  
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40 that an apology operates as a reassurance that signals that “everything is OK”.  
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### 48 *1.3.1 Apologies and the equality norm*

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51 In the context of compensation, when might apologies particularly facilitate relationship  
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53 preservation? We suggest that relational means of addressing transgressions may be  
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55 particularly useful when compensation alone is insufficient to effectively restore the  
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57 relationship. More specifically, we expect an interaction effect between financial  
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compensation and apologies. When a financial compensation meets (i.e., in case of an equal compensation) or exceeds (i.e., in case of an overcompensation) the equality norm, the recipient's distributive fairness concerns are satisfied, as the initial state of disadvantageous inequality has been redressed. Due to the importance people adhere to fair distributions, we predict that a ceiling effect will occur, whereby that once unfairness has been resolved, people may benefit little from additional – tangible or intangible – restitutions (i.e., further financial compensation, such as overcompensation, or relational actions, like apologies). This implies that, starting from the level of equal compensation, an apology no longer has an additional effect on the level of relationship preservation. In case of an undercompensation, however, the state of disadvantageous inequality has not been redressed. Thus, as undercompensation fails to undo the recipient's unfairness, additional relational actions of the transgressor may be expected in order to preserve the relationship. The idea that relational strategies, such as apologies, may compensate for the unequal distribution of tangible outcomes received some initial support from the work by Brockner and Wiesenfeld (1996, see also Tata, 1999), who showed that relational fairness concerns (e.g., being treated fairly and with respect) are especially important in the context of low levels of distributive fairness. Taken together, we suggest that apologies may be particularly effective when fairness concerns are not met, like in case of an undercompensation. In this domain, we expect that receiving an apology in addition to a financial compensation will have a more positive effect on relationship preservation compared to when only a financial compensation is provided.

#### **1.4 The present studies**

In the present studies, we focus on the combined effects of financial compensation and apologies in an economic situation. To create a fairness transgression in an economic context, we will use a standard dictator game (Kahneman, Knetsch, & Thaler, 1986), which implies that we focus on economic situations, in which outcome-related concerns are particularly

salient (Desmet et al., 2011). Based on the theoretical framework that we have outlined above, we developed the following hypotheses:

Hypothesis 1: (1a) Undercompensation is less effective in preserving relationships than equal compensation and overcompensation [*under vs. equal + over*], but (1b) overcompensation is not more effective in preserving relationships than equal compensation [*equal vs. over*].

Hypothesis 2: Undercompensation with an apology is more effective in preserving relationships than undercompensation without an apology [*under with apology vs. under without apology*].

Hypothesis 3: (3a) Equal compensation with an apology is not more effective in preserving relationships than equal compensation without an apology [*equal with apology vs. equal without apology*], and (3b) overcompensation with an apology is not more effective in preserving relationships than overcompensation without an apology [*over with apology vs. over without apology*].

We present two studies to test these hypotheses. Study 1 was designed to test the first two hypotheses, while study 2 was designed to test all three hypotheses.

## 2. Study 1: Pilot study

### 2.1 Methods

#### 2.1.1 Participants and design

The participants were 22 postgraduate students (5 men, 16 women, and one person who did not specify a gender;  $M_{age} = 29.81$ ,  $SD_{age} = 6.53$ ). In this study, we opted for a scenario study (see De Cremer, Pillutla, & Reinders Folmer, 2011, Study 1). We employed a four-level (undercompensation vs. undercompensation with apology vs. equal compensation vs. overcompensation) within-subjects design.

### 2.1.2 Procedure

Participants were asked to take part in a game. It was explained that they would play a dictator game with another student who was supposedly present in another room. First, the participants read a paper with instructions. They learned that in the game, two players would decide over the division of ten lottery tickets, with which a 10 euro gift voucher could be earned. One player (the allocator) would unilaterally divide the tickets; the other player (the recipient) could not influence this division. All participants played the role of the recipient; the allocator was simulated. After a pause, the experimenter brought a form on which the allocator supposedly had written his or her decision to allocate two of the ten tickets to the recipient.

Before continuing the game, the participants were asked to evaluate four possible responses by which the allocator could react to the unequal allocation: 1) by giving fewer extra tickets than the number needed to reach an equal distribution (i.e., one ticket in the *undercompensation* condition), 2) by giving fewer extra tickets than the number needed to reach an equal distribution and an additional apology (i.e., one ticket and an apology in the *undercompensation with apology* condition), 3) by giving the exact number of extra tickets needed to reach an equal distribution (i.e., three tickets in the *equal compensation* condition), and 4) by giving more extra tickets than needed to reach an equal distribution (i.e., five tickets in the *overcompensation* condition). After each response, we measured participants' intentions to replace the allocator ("To what extent would you wish to replace the allocator?"; 1 = *not at all*, 7 = *very much*), and their behavioral intentions to give the allocator a second chance ("Would you be willing to give the allocator a second chance in the next round?"; 0 = *no*, 1 = *yes*). The four responses were presented in a fixed order. One participant did not answer these questions and therefore was excluded from further analyses.

The study was then stopped, and the participants were thanked and debriefed.

## 2.2 Results

### 2.2.1 Intentions to replace the allocator

A repeated measures analysis of variance (ANOVA), using the continuous measure of relationship preservation for the four responses as within-subject variables, revealed that the intention to replace the allocator was significantly affected by the allocator's response,  $F(3, 18) = 16.16$ ,  $p < .001$ ,  $\eta^2 = .73$ . The contrasts were planned in accordance with our hypotheses. Supporting *Hypothesis 1a*, participants indicated significantly stronger intentions,  $F(1, 20) = 28.60$ ,  $p < .001$ ,  $\eta^2 = .59$ , to replace the allocator after receiving undercompensation with or without an apology ( $M = 4.69$ ,  $SD = 1.50$ ) than after receiving equal and overcompensation ( $M = 2.57$ ,  $SD = 1.48$ ). Furthermore, in support of *Hypothesis 1b*, participants did not indicate stronger intentions,  $F(1, 20) = 0.25$ ,  $n.s.$ ,  $\eta^2 = .01$ , to replace the allocator after receiving equal compensation ( $M = 2.48$ ,  $SD = 1.78$ ) compared to overcompensation ( $M = 2.67$ ,  $SD = 1.65$ ). Finally, in support of *Hypothesis 2*, participants had significantly stronger intentions,  $F(1, 20) = 5.99$ ,  $p < .05$ ,  $\eta^2 = .23$ , to replace the allocator after receiving undercompensation without an apology ( $M = 4.95$ ,  $SD = 1.43$ ) than after receiving undercompensation with an apology ( $M = 4.43$ ,  $SD = 1.72$ ).

### 2.2.2 Behavioral intentions to give the allocator a second chance

A repeated measures ANOVA, using the dichotomous measure of relationship preservation for the four responses as within-subject variables, revealed that the behavioral intention to give the allocator a second chance was significantly affected by the allocator's response,  $F(3, 18) = 12.00$ ,  $p < .001$ ,  $\eta^2 = .67$ . Again, the contrasts were planned in accordance with our hypotheses. It was revealed that, in agreement with *Hypothesis 1a*, participants were significantly less likely,  $F(1, 20) = 29.41$ ,  $p < .001$ ,  $\eta^2 = .60$ , to give the

allocator a second chance after receiving undercompensation with or without an apology ( $M = 0.38$ ,  $SD = 0.44$ ) than after receiving equal and overcompensation ( $M = 0.86$ ,  $SD = 0.28$ ). Further, as predicted by *Hypothesis 1b*, overcompensation did not increase intentions to preserve the relationship. Indeed, participants were even significantly less likely,  $F(1, 20) = 4.71$ ,  $p < .05$ ,  $\eta^2 = .19$ , to give the allocator a second chance after receiving overcompensation ( $M = 0.76$ ,  $SD = 0.44$ ) than after receiving equal compensation ( $M = 0.95$ ,  $SD = 0.22$ ). Finally, in support of *Hypothesis 2*, participants were significantly less likely,  $F(1, 20) = 4.71$ ,  $p < .05$ ,  $\eta^2 = .19$ , to give the allocator a second chance after receiving undercompensation without an apology ( $M = 0.29$ ,  $SD = 0.46$ ) than after receiving undercompensation with an apology ( $M = 0.48$ ,  $SD = 0.51$ ). Table 1 reports, for each of the four responses, the number and the percentage of participants who would (or would not) give the allocator a second chance.

*Insert Table 1 approximately here*

## 2.3 Discussion

The present study provides some initial evidence that in a financial exchange, apologies might encourage relationship preservation when the recipients receive a compensation that is too low to achieve equality. Furthermore, the results showed that overcompensation is not more effective than equal compensation in achieving this positive reaction. Both of these results thus indicate that in financial situations, it is not only monetary concerns that play a role.

## 3. Study 2: Lab experiment

### 3.1 Methods

#### 3.1.1 Participants and design

1 A total of 302 undergraduate students at Erasmus University Rotterdam in the  
2 Netherlands (175 men, 127 women;  $M_{age} = 20.56$ ,  $SD_{age} = 1.69$ ) participated in the study in  
3 exchange for course credits. Unlike study 1, study 2 was a lab experiment. Moreover,  
4 compensation and apologies were now manipulated orthogonally, and we included a *no*  
5 *compensation* condition as a control group. Therefore, the study employed a full factorial 4  
6 (compensation: no compensation vs. undercompensation vs. equal compensation vs.  
7 overcompensation) x 2 (apology: no apology vs. apology) between-subjects design.  
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### 10 3.1.2 Procedure

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12 Upon arrival in the laboratory, each participant was placed in a separate experimental  
13 cubicle in front of a computer. First, the dictator game was explained. As in study 1, all  
14 participants played the role of the recipient and received two of the ten lottery tickets from the  
15 simulated allocator. The prize was a 50 euro gift voucher. To assess their comprehension of  
16 the task, the participants completed three comprehension checks: 1) who would divide the ten  
17 lottery tickets, 2) to what extent the recipient would be able to influence the allocator's  
18 decision, and 3) what the lottery tickets were worth. The participants who failed to answer at  
19 least two of the three checks correctly were excluded from the analyses (1 participant, 0.3%).  
20 In addition, 12 participants (4.0%) were excluded because they voiced suspicion about the  
21 task.  
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23 To be able to examine actual relationship repair, it is necessary that participants  
24 experience the allocator's initial division of the lottery tickets as a transgression. Therefore,  
25 we assessed participants' satisfaction with the division by asking them to select one of two  
26 messages to send to the allocator (i.e., "*I am satisfied with how you divided the lottery*  
27 *tickets*" or "*I am NOT satisfied with how you divided the lottery tickets*"). For participants  
28 who indicated that they were satisfied with the division (42 participants, 14.5%), and  
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consequently did not experience it as a transgression, the experiment ended at this point. Participants who indicated that they were not satisfied with the division (247 participants, 85.5%), and consequently experienced it as a transgression, proceeded to the manipulations.

In response to their message to the allocator, participants in the *apology* condition received an apology (“*I want to apologize for the division*”), while the participants in the *no apology* condition received no apology. The participants in the *no compensation* condition received no compensation, while the participants in the *under-, equal, and overcompensation* conditions received a compensation of additional tickets (“*I give you – 1, 3, or 5 – extra ticket(s)*”, respectively).

To measure participants’ intentions to preserve the relationship with the allocator, we used six items based on the Transgression-Related Interpersonal Motivations (TRIM) Inventory—18 (McCullough et al., 1998). The TRIM—18 measures three dimensions of forgiveness motivation: avoidance, revenge, and benevolence (see McCullough et al., 2006). As our focus is on relationship preservation, we selected items from the benevolence subscale – which measures benevolence motivation towards a transgressor – and the avoidance subscale – which measures motivation to avoid a transgressor – that were applicable to our experimental situation. Four items based on the benevolence subscale were used to measure participants’ intentions to continue the relationship with the transgressor: “To what extent would you be likely to give the allocator a second chance?”, “To what extent would you be likely to give the allocator the benefit of the doubt?”, “To what extent would you be inclined to work with the allocator again?”, and “To what extent would you not mind working with the allocator again?”. Two items based on the avoidance subscale were used to measure participants’ intentions to discontinue the relationship with the transgressor: “To what extent would you be inclined to quit working with the allocator?” and “To what extent would you prefer to work with someone else in the future?”. All six items were measured using seven-

point scales (1 = *not at all*, 7 = *very much*); the two avoidance items were reverse-coded. Mirroring the results of McCullough et al. (2006), a factor analysis with oblique rotation indicated the avoidance and benevolence items to load on a single factor (eigenvalue = 3.14, explained variance = 52.37%); therefore, all items were combined into a single scale ( $\alpha = 0.79$ ,  $M = 3.61$ ,  $SD = 1.78$ ) measuring relationship preservation.

To examine whether the apology and the compensation manipulations were successful, we used three manipulation checks: “To what extent did the allocator apologize for his or her actions?”, “To what extent did the allocator say sorry about his or her actions?”, and “To what extent would you say the allocator gave you many tickets back?” (1 = *not at all*, 7 = *very much*). Because scholars have argued that the use of manipulation checks may influence participants’ responses on the dependent variable (Goodwin, 2009; Stangor, 2010), the manipulation checks were solicited at the end of the experiment, after the relationship preservation questionnaire.

Finally, the experiment was stopped, and the participants were debriefed, thanked, and dismissed.

## 3.2 Results

### 3.2.1 Manipulation checks

Two ANOVAs revealed, for both apology manipulation checks, a significant main effect of apology,  $F(1, 239) = 24.99$ ,  $p < .001$ ,  $\eta^2 = .10$  and  $F(1, 239) = 52.88$ ,  $p < .001$ ,  $\eta^2 = .18$ , respectively. Participants interpreted the behavior of the allocator on both items as more apologetic in the apology condition ( $M = 4.03$ ,  $SD = 1.87$  and  $M = 4.24$ ,  $SD = 1.75$ , respectively) than in the no apology condition ( $M = 3.00$ ,  $SD = 1.88$  and  $M = 2.77$ ,  $SD = 1.81$ , respectively). Further, these two ANOVAs also revealed, for both apology manipulation checks, a significant main effect of compensation,  $F(3, 239) = 37.40$ ,  $p < .001$ ,  $\eta^2 = .32$  and

$F(3, 239) = 24.62, p < .001, \eta^2 = .24$ , respectively. A post hoc test (LSD) showed that participants interpreted the behavior of the allocator on both items as not more apologetic (*n.s.*) in the overcompensation condition ( $M = 4.72, SD = 1.40$  and  $M = 4.51, SD = 1.51$ , respectively) than in the equal compensation condition ( $M = 4.46, SD = 1.66$  and  $M = 4.22, SD = 1.74$ , respectively). Further, participants interpreted the behavior of the allocator on both items as more apologetic ( $ps < .001$ ) in the equal compensation condition than in the undercompensation condition ( $M = 2.85, SD = 1.63$  and  $M = 2.90, SD = 1.67$ , respectively). Finally, the participants interpreted the behavior of the allocator on the first item as more apologetic ( $p < .05$ ) and on the second item as not more apologetic (*n.s.*) in the undercompensation condition than in the no compensation condition ( $M = 2.25, SD = 1.78$  and  $M = 2.50, SD = 1.91$ , respectively). The fact that there is a significant main effect of the compensation condition on the apology manipulation checks, seems to imply that equal compensation and overcompensation implicitly convey the message that a transgressor feels sorry, and that a compensation is an expression of this regret. Consequently, in an economic situation, these monetary resources seem to “make-up for” unfair decision-making (see Okimoto, 2008).

Finally, an ANOVA for the financial compensation manipulation check revealed only a significant main effect of compensation,  $F(3, 239) = 132.21, p < .001, \eta^2 = .62$ . Participants indicated receiving more tickets back from the allocator in the overcompensation condition ( $M = 5.58, SD = 1.15$ ) than in the equal compensation condition ( $M = 4.58, SD = 1.61$ ), in the equal compensation condition than in the undercompensation condition ( $M = 2.17, SD = 1.38$ ), and in the undercompensation condition than in the no compensation condition ( $M = 1.61, SD = 1.00$ ). A post hoc test (LSD) showed that the contrasts between all these conditions were significant ( $p < .001, p < .001$ , and  $p < .05$ , respectively).

### 3.2.2 Relationship preservation

A 4 (compensation) x 2 (apology) ANOVA on the relationship preservation scale showed a significant main effect of compensation,  $F(3, 239) = 40.20, p < .001, \eta^2 = .34$ , no main effect of apology,  $F(1, 239) = .05, n.s., \eta^2 = .00$ , and a significant interaction effect of compensation and apology,  $F(3, 239) = 2.58, p = .05, \eta^2 = .03$ . Table 2 reports the means, standard deviations, and number of cases for each condition.

*Insert Table 2 approximately here*

The main effect of compensation was further explored using Helmert contrasts. In support of *Hypothesis 1a*, significantly lower intentions to preserve the relationship (contrast estimate = -0.78,  $SE = 0.15, p < .001$ ) were revealed in the undercompensation condition compared to the equal and overcompensation conditions ( $M = 4.27, SD = 0.93$ ). In addition, in support of *Hypothesis 1b*, the intentions to preserve the relationship did not differ significantly (contrast estimate = 0.09,  $SE = 0.18, n.s.$ ) between the equal compensation condition and the overcompensation condition.

Next, we examined the significant interaction effect between compensation and apologies by using planned contrasts (Field, 2005). We computed four contrasts regarding the impact of the apology conditions within the compensation conditions. In agreement with *Hypothesis 2*, in the undercompensation condition, an apology significantly increased intentions to preserve the relationship,  $F(1, 239) = 4.06, p < .05, \eta^2 = .02$ . In agreement with *Hypotheses 3a* and *3b*, an apology did not increase intentions to preserve the relationship in the equal compensation condition,  $F(1, 239) = 0.65, n.s., \eta^2 = .00$ , or the overcompensation condition,  $F(1, 239) = 3.03, n.s., \eta^2 = .01$ . Finally, an apology did not increase intentions to preserve the relationship in the no compensation condition,  $F(1, 239) = 0.03, n.s., \eta^2 = .00$ .

Based on our theoretical framework, we computed two contrasts regarding the impact of the compensation conditions within the apology conditions (i.e., a first contrast to compare

undercompensation with equal and overcompensation, and a second contrast to compare equal compensation with overcompensation). The first contrast revealed that in the no apology condition, undercompensation significantly decreased intentions to preserve the relationship compared to equal and overcompensation ( $M = 4.42$ ,  $SD = 0.82$ ),  $F(1, 239) = 30.27$ ,  $p < .001$ ,  $\eta^2 = .11$ . However, in the apology condition, there was no difference in intentions to preserve the relationship between, on the one hand, undercompensation, and on the other hand, equal and overcompensation ( $M = 4.10$ ,  $SD = 1.02$ ),  $F(1, 239) = 2.92$ ,  $n.s.$ ,  $\eta^2 = .01$ . For the second contrast, there was no significant increase in intentions to preserve the relationship in the overcompensation condition compared to the equal compensation condition, including both the apology condition,  $F(1, 239) = 0.02$ ,  $n.s.$ ,  $\eta^2 = .00$ , and the no apology condition,  $F(1, 239) = 0.64$ ,  $n.s.$ ,  $\eta^2 = .00$ . These final results support our predictions in *Hypotheses 1, 2, and 3*.

### 3.3 Discussion

Study 2 provides further evidence that in financial exchanges, apologies increase the effectiveness of undercompensation as a means to preserve a relationship. Furthermore, as expected, the results show that undercompensation is less effective than equal compensation, and equal compensation is as effective as overcompensation in preserving relationships.

## 4. General discussion

An unfair division of available resources can lead to mistrust, disappointment, and anger between the parties involved, which makes forgiveness and relationship preservation less likely to occur (Bradfield & Aquino, 1999; McCornack & Leveni, 1990). Therefore, it is important to understand the mechanisms by which relationship preservation can be enhanced in such situations. Prior research has revealed that in interdependent situations, allocators can make use of repair strategies that address the recipient's financial interests (i.e., financial compensation; see Desmet et al., 2011) or strategies that address relational interests (i.e.,

1 apologies; see De Cremer, 2002; Lax & Sebenius, 1986). Both strategies are thought to be  
2 successful because they signal that the allocator takes responsibility for the transgression and  
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4 is trying to reduce the harm that has been performed by the transgression. This idea was  
5 confirmed by Bottom et al. (2002), who identified financial compensation, explanations, and  
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7 apologies as effective strategies to enhance cooperation. Although prior research has  
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9 suggested that financial compensation alone may not be sufficient to effectively restore the  
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11 relationship (e.g., Curhan et al., 2006; De Cremer, 2002), the research to date has neglected to  
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13 study if and when there is a simultaneous effect of financial compensation and apologies on  
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15 relationship preservation.  
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22 The present studies had two important aims. The first aim was to investigate the  
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24 relationship between the amount of compensation and the extent to which the relationship was  
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26 preserved. The second aim was to demonstrate that in cases of undercompensation, non-  
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28 financial means can have an important secondary value in preserving relationships. We tested  
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30 our hypotheses in two studies that presented a financial allocation situation. In both of these  
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32 studies, the participants played the role of the recipient in a dictator game with a simulated  
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34 allocator. The allocator inflicted financial harm on the recipient in the first phase of the  
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36 experiment, that he or she then tried to minimize or undo by offering an apology (or not)  
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38 and/or financial compensation (or not).  
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45 Our hypotheses were confirmed by the results. Both of our studies showed that the  
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47 participants who received equal compensation or overcompensation had greater intentions to  
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49 preserve the relationship than the participants who received undercompensation (*Hypothesis*  
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51 *1a*). These results corroborate previous research that revealed that financial compensation  
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53 encourages relationship repair, and greater compensation elicits more favorable reactions than  
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55 lesser compensation (Desmet et al., 2011). From an economic perspective, greater  
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57 compensation should result in higher tendencies toward relationship preservation. However,  
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both of our studies revealed that overcompensation does not increase intentions to preserve the relationship more than equal compensation does (*Hypothesis 1b*). This result corroborates the findings of Desmet et al. (2011), that showed similar effects of compensation size on trust restoration when the initial malicious intentions of the allocator were clear to the recipient.

Further, both of our studies showed that the participants' intentions to preserve the relationship with the allocator were higher after receiving undercompensation with an apology than after receiving undercompensation without an apology (*Hypothesis 2*). From a relational perspective, these results confirm that in cases of undercompensation, when compensation alone is insufficient to reach equality, an apology offers important additional value in preserving relationships. In other words, in these situations, apologies constitute a non-financial means to preserve relationships. Furthermore, the results of study 2 revealed that apologies did not promote relationship preservation in the context of equal compensation (*Hypothesis 3a*) or overcompensation (*Hypothesis 3b*). Hence, when an allocator provides the necessary financial means to satisfy or exceed the equality norm, there is no need for additional non-financial strategies to preserve the relationship.

In the remainder of the discussion, we focus on the relative importance of financial and non-financial motives of the people who have to decide whether to preserve the relationship with a party who harmed them financially. We also discuss the relationship between the amount of compensation and the willingness to preserve the relationship. Finally, we describe in depth some limitations of the present studies.

#### 4.1 Financial and relational motives

Classical economic theory assumes that people are both rational and selfish (i.e., maximize their own outcomes), while other motives are largely ignored (Camerer & Thaler, 2003; Dawes & Thaler, 1988). The present studies, however, highlight that financial

outcomes alone may not be sufficient to understand relationship preservation. Rather, our findings are in line with the idea that people's appreciation of restoration attempts also depends on fairness concerns, such as fair treatment and respect (see Bies & Moag, 1986; Tyler & Bies, 1990). Compensation particularly resulted in greater relationship preservation if it restored equality, and the impact of further compensation beyond that was limited, and far smaller than the impact of failing to restore equality (cf. Loewenstein et al., 1989). Moreover, relationship preservation could further be bolstered by apologies, at least in cases of undercompensation. As such, the present findings are in line with research that stresses the importance of appealing to relational motives in order to achieve trust repair (Bottom et al., 2002; Lazare, 2004; Kim et al., 2009).

The provision of apologies did not universally facilitate relationship repair. Its impact was limited in situations where equality was met or exceeded, or when no compensation was given. How can these findings be understood, in light of previous research that has indicated that apologies alone (i.e., without financial compensation) can promote reconciliation (e.g., Bottom et al., 2002; Exline, Deshea, & Holesman, 2007; Ohbuchi, Kameda, & Agarie, 1989)? Scholars have argued that when actors enter in an economic exchange situation (like the dictator game), which mainly consists of resource allocations between two or more agents, trust is typically calculus-based (i.e., outcome-related concerns imply that broken trust can be repaired most effectively by financial strategies, such as a financial compensation) rather than identification-based (i.e., trust driven by affect and interpersonal concerns – which implies that broken trust can be repaired most effectively by relational strategies, such as an apology; see Rousseau, Sitkin, Burt, & Camerer, 1998; Lewicki et al., 2005). Accordingly, Joskowicz-Jablonek and Leiser (2011) reported that different betrayal-domains lead to different negative emotions and different strategies to relieve these emotions. More specifically, for the social norms domain (i.e., trust-betrayal between strangers), emotions of indignation and anger are



strongest and financial strategies, such as a financial compensation, reduce these emotions most effectively. For the personal domain (i.e., trust-betrayal in an ongoing interpersonal relationship), however, emotions of disappointment and hurt are strongest and non-financial strategies, such as an apology, reduce these emotions most effectively.

In the present context, where transgressions occurred in an economic exchange situation between strangers (see Desmet et al., 2011; Joskowicz-Jablonek & Leiser, 2011), these processes suggest that financial outcomes are likely to have dominated evaluations, thereby reducing the impact of apologies in situations where the distributive injustice is already redressed (i.e., after equal compensation or overcompensation). The impact of apologies may similarly have been reduced when no compensation is given, as in this situation – contrary to previous research – the allocator is offering no compensation despite being capable of fully compensating the recipient. Therefore, in the present context, an apology could even be seen as hypocrisy, because of the apparent contradiction between words (expressing regret) and behavior (giving nothing). In sum, these notions suggest that relational strategies, like apologies, might have a stronger impact on relationship repair in contexts that are less economic, such as in non-financial situations, or in interactions among partners or friends in ongoing relationships. Nevertheless, the present findings illustrate that even in a strongly financial frame, relational means can contribute to relationship preservation. Hence, the present research underlines the importance of relational motives in economic situations, and shows that even undercompensation can be persuasive, as long as the allocator takes responsibility for unfair behavior by showing remorse.

#### **4.2 Towards a model of the relative values of financial compensation and apologies**

We were the first to investigate the impact of different compensation sizes and apologies on relationship repair simultaneously. Our findings can be captured in a more

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general model. Because people want equality to be restored they respond positively to equal compensation and overcompensation, which implies that the outcome *an sich* is not the most important. This idea is also evident from the study of Loewenstein et al. (1989), who demonstrated that the utility that people derive from advantageous inequality is by far exceeded by the disutility they derive from disadvantageous inequality.

In this respect, in the aftermath of distributive harm, the offer of an additional equal compensation or overcompensation provides (post-hoc) satisfaction of the equality norm, because the compensation readdress the initial state of disadvantageous inequality. Implicitly, this means that allocators distance themselves from their previous unfair behavior, by eventually conforming to (or exceeding) the applicable standard. This dissociation encourages the repair of the damaged or broken relationship. Moreover, there is a positive linear relationship between the amount of financial compensation and the level of relationship preservation until the level of equal compensation, after which the curve flattens. Thus, once equality is reached, an additional action by the transgressor has no additional value in promoting the relationship; however, if equality has not been reached (i.e. in cases of undercompensation) there is still room to encourage the repair of the broken or damaged relationship. For this reason, the impact of relational strategies, such as apologies, will especially be pronounced when the point of equality is not yet reached. Stated otherwise, undercompensation combined with an apology is considered fairer – and consequently closer to the equality norm – than undercompensation without an apology.

As seen in Figure 1, apologies help to encourage relationship preservation, such that the value of a particular amount of resources used as compensation (e.g., 'x', or 50 euro) increases up to a higher level of compensation (e.g., 'x + 1', or 70 euro). In other words, in

1 this model, apologies can be expressed in terms of how much monetary value can be saved to  
2 preserve the relationship (e.g., 20 euro).  
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6 *Insert Figure 1 approximately here*  
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9 As seen in Figure 2, one possibility is that over the continuum of possible  
10 undercompensation values, apologies represent a constant which should simply be added to  
11 the effect of undercompensation (curve a). Another possibility, also depicted in Figure 2, is  
12 that the power of apologies to preserve a relationship depends on the amount of  
13 compensation, such that apologies become more effective when the point of equality is  
14 approached (curve b), or a reversed pattern might even emerge (curve c).  
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24 *Insert Figure 2 approximately here*  
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27 To test this more general model, further studies should systematically vary the amount  
28 of extra resources offered by the allocator, which would allow mapping of the relative  
29 contributions of apologies and compensation in preserving a relationship. Furthermore, the  
30 added value of an apology to a financial compensation for relationship preservation could  
31 potentially be influenced by other factors that are involved in relationship repair. Here, we can  
32 think of potential mediators, such as perceived remorse and perceived admittance (see Barclay  
33 & Skarlicki, 2008; Scher & Darley, 1997), reaffirmed respect and status of the victim (see  
34 Barclay & Skarlicki, 2008), forgiveness (see McCullough, 2000; McCullough et al., 1998,  
35 2006), and trust (see Kramer, 1999; Kramer & Tyler, 1996; Lorenz, 1999; Zaheer &  
36 Venkatraman, 1995), and potential moderators, like the specific situation (e.g., economic vs.  
37 non-economic situation; see Desmet et al., 2011), the transgression type (e.g., integrity- vs.  
38 competence-based trust violation; see Ferrin, Kim, Cooper, & Dirks, 2007; Kim et al., 2004),  
39 and relationship closeness (e.g., transgressor is a stranger vs. a friend; see Joskowicz-Jablonek  
40 & Leiser, 2011).  
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### 4.3 Limitations

Before closing, some limitations must be discussed. First, both of our studies made use of a dictator game. The dictator game has the advantage that the recipient is not able to reject the offer, which allowed us to directly assess the separate impacts of financial compensation and apologies when the outcomes were identical for each participant (see De Cremer, 2010). A downside to this procedure is that real-life situations are often more complex. For example, some recipients may enact vengeance or avoid further contact before the allocator has had the chance to fix the harm. Moreover, the dictator game is an economic situation, in which outcome-related concerns are particularly salient. This means that although our findings reveal that particularly strategies that address financial outcomes are effective as means to restore relationships, it is possible that relational strategies would be more effective in non-economic situations. Therefore, while the present studies provide a useful starting point to understand the impacts of economic and relational strategies on the repair of relationships, future research should examine these strategies in more complex settings (e.g., using the ultimatum game) and in more relational contexts (e.g., non-financial decisions and ongoing relationships).

Secondly, to be able to investigate relationship preservation in the aftermath of distributive harm, it is important that recipients experience the allocator's decision about the division of the available resources as a transgression. Previous studies, however, indicate that attributing transgressions to clear malicious intent is associated with a decline in forgiveness (Boon & Sulsky, 1997) and trust (Desmet et al., 2011). This implies that in our studies there could be an effect of perceived intentionality of the transgressor, e.g., in terms of blame attribution (see Shaver, 1985). Therefore, further research should take the intentionality of the transgression into account.

1 Thirdly, a specific limitation of the pilot study is that we used a within-subjects design,  
2 which increases the threat of demand characteristics. However, the fact that the lab  
3 experiment revealed the same pattern of results increases our confidence in the results of the  
4 pilot study.  
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10 Finally, the exact mechanism through which an apology exerts its positive influence  
11 on relationship preservation in cases of undercompensation remains unclear in our studies.  
12 Therefore, a valuable avenue for future research would be to examine the different factors that  
13 can explain the added value of an apology in addition to financial undercompensation for  
14 relationship repair.  
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#### 23 4.4 Conclusions

24 The present studies show that when financial harm has been inflicted in an economic  
25 context, financial strategies (i.e., financial compensation) and relational strategies (i.e.,  
26 apologies) play roles in preserving relationships. More specifically, apologies encourage the  
27 preservation of the relationship after an unfair resource allocation followed by an offer of  
28 financial compensation that is too low to satisfy the equality norm.  
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**Figure Captions**

*Figure 1.* The relationship between the amount of compensation and relationship preservation.

Note. The solid line indicates financial compensation and the dashed line indicates the additional value of an apology.

*Figure 2.* Three possibilities for the additional value of an apology on relationship preservation.

Note. The solid line indicates financial compensation and the dashed lines indicate the additional value of apologies: the dashed line and square indicate curve a; the dashed line and circle indicate curve b; the dashed line and triangle indicate curve c.

Table 1

*The number and percentage of participants that would (or would not) give the allocator a second chance in the next round in study 1 (N = 21)*

Allocator's response	Give the allocator a second chance?			
	Yes		No	
	<i>n</i>	%	<i>n</i>	%
Undercompensation	6	28.6	15	71.4
Undercompensation with an apology	10	47.6	11	52.4
Equal compensation	20	95.2	1	4.8
Overcompensation	16	76.2	5	23.8

Table 2

*Means, standard deviations, and the number of cases for each condition in study 2 (N = 247)*

Dependent variable	Compensation condition	Apology condition								
		No apology			Apology			Total		
		<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Relationship preservation	No compensation	2.66	1.00	39	2.70	1.10	33	2.68	1.04	72
	Undercompensation	3.22	1.07	29	3.73	0.73	30	3.48	0.94	59
	Equal compensation	4.40	0.73	29	4.19	0.84	30	4.29	0.79	59
	Overcompensation	4.43	0.90	32	3.99	1.22	25	4.24	1.06	57
	Total	3.62	1.22	129	3.61	1.14	118	3.61	1.18	247

Note. Higher mean scores indicate greater intentions to preserve the relationship.



Figure 1

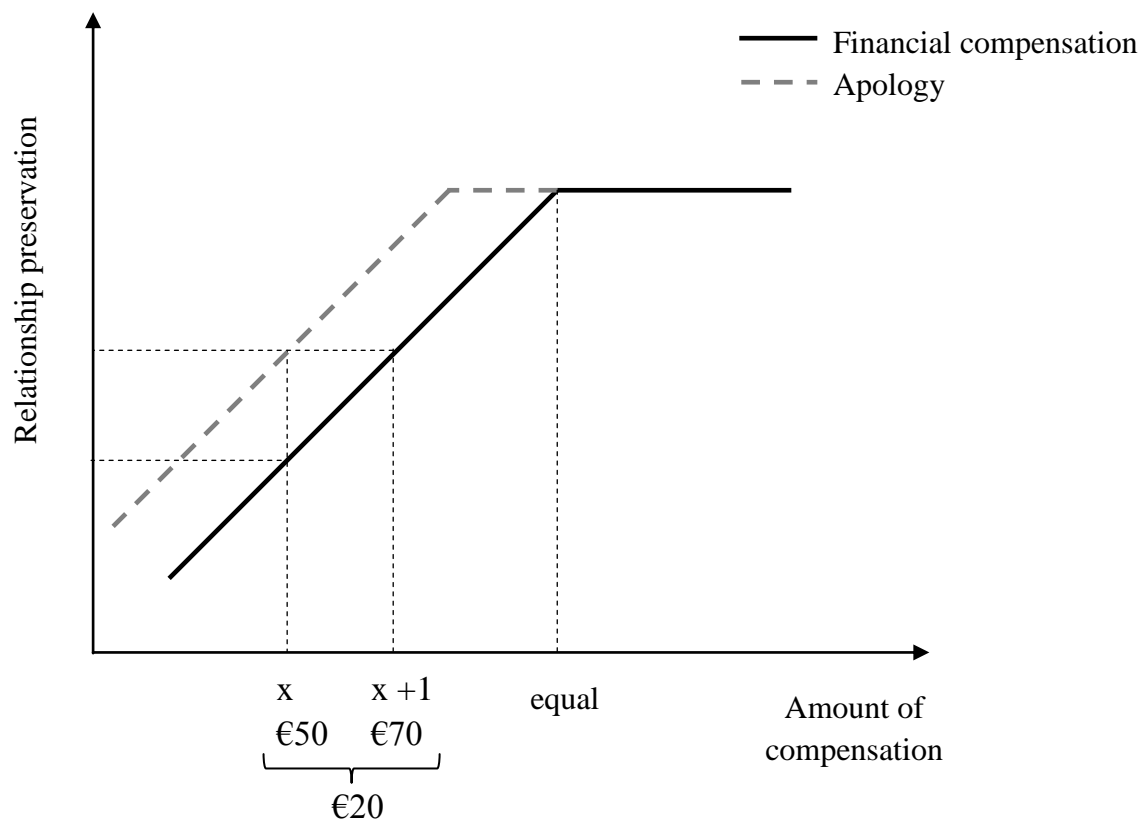


Figure 2

