

PIETER DESMET

In Money we Trust?

Trust Repair and the Psychology of
Financial Compensations



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Is het geld dat ons doet vertrouwen?

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"There's a huge trust. I see it all the time when people come up to me and say, 'I don't want you to let me down again.' "

George W. Bush—Boston, Oct. 3, 2000

*"Cash rules everything around me,
C.R.E.A.M.
Get the money, dollar, dollar bill yall."*

Wu-Tang Clan

CONTENTS

CHAPTER 1	1
<i>GENERAL INTRODUCTION</i>	
1.3: Trust in economic exchange relations	3
1.2: Violations of trust and trust repair	6
1.3: Overview of the present dissertation	8
CHAPTER 2	13
<i>HOW THE TYPE OF VIOLATION AFFECTS THE IMPACT OF COMPENSATION SIZE: THE ROLE OF INTENT AMBIGUITY</i>	
2.1: Introduction	13
2.1.1 Repairing trust with financial compensations	15
2.1.2 Intent ambiguity as a moderator of financial compensation effects	18
2.1.3 The present research	22
2.2: Experiment 2.1	23
2.2.1 Method	25
2.2.2 Results	27
2.2.3 Discussion	30
2.3: Experiment 2.2	31
2.3.1 Method	32
2.3.2 Results	34
2.3.3 Discussion	38
2.4: Experiment 2.3	39
2.4.1 Method	40
2.4.2 Results	41
2.4.3 Discussion	44
2.5: Experiment 2.4	44
2.5.1 Method	45
2.5.2 Results	47
2.5.3 Discussion	49
2.6: General discussion	49
2.6.1 Limitations and suggestions for future research	51
2.6.1 Conclusion	53
CHAPTER 3:	55
<i>SIZE MATTERS PART 2: WHEN INTENTIONS DETERMINE VALUE</i>	
3.1: Introduction	55

3.1.1 Repairing trust with financial compensations	57
3.1.2 Voluntariness and the importance of intentions for trust	59
3.2: Experiment 3.1	62
3.2.1 Method	63
3.2.2 Results	65
3.3: General discussion	67
3.3.1 Limitations and suggestions for future research	69
3.3.2 Conclusion	72
CHAPTER 4	73
<i>INTENTIONS AND REPENTANCE IN THE EYE OF THE BEHOLDER: THE ROLE OF TRAIT FORGIVENESS</i>	
4.1 Introduction	73
4.1.1 Trust (repair) and the importance of perceived intentions	75
4.1.2 Trait forgiveness as a moderator	78
4.2 Experiment 4.1	79
4.2.1 Method	80
4.2.2 Results	83
4.3 General discussion	88
CHAPTER 5	93
<i>WHEN COMPENSATION IS NOT ENOUGH: RESTORING TRUST IN GROUPS AND INDIVIDUALS</i>	
5.1 Introduction	93
5.1.1 Apologies and relational concerns	95
5.1.2 When financial compensations need apologies: it depends on the interaction partner	96
5.1.3 The present research	98
5.2 Experiment 5.1	98
5.2.1 Method	98
5.2.2 Results	101
5.2.3 Discussion	103
5.3 Experiment 5.2	104
5.3.1 Method	104
5.3.2 Results	107
5.2.3 Discussion	111
5.4 General discussion	111

5.4.1 Limitations and suggestions for future research	113
5.4.2 Conclusion	115
CHAPTER 6	117
<i>GENERAL DISCUSSION</i>	
6.1 Summary of the empirical findings	117
6.2 Implications and contributions	124
6.3 Suggestions for future research	128
REFERENCES	133
SAMENVATTING (DUTCH SUMMARY)	151
ACKNOWLEDGEMENTS	159
BIOGRAPHICAL NOTE	161

LIST OF FIGURES

Figure 3.1: Mean allocation in second round of trust game as a function of voluntariness and compensation size.	67
Figure 4.1: Self reported trust as a function of compensation type and TTF scores. Low and high values on the TTF scale were calculated at ± 1 SD.	85
Figure 4.2: Trust game allocation of victims towards the transgressors as a function of compensation type and TTF scores. Low and high values on the TTF scale were calculated at ± 1 SD.	86
Figure 4.3: Path diagram of the role of perceived repentance in mediating the impact of compensation type on trust behavior, as a function of tendency to forgive.	88
Figure 5.1: Mean Allocation in second Round of Trust Game as a Function of Restoration Type and Interaction Partner for Experiment 5.1.	103
Figure 5.2: Mean Allocation in second Round of Trust Game as a Function of Restoration Type and Interaction Partner for Experiment 5.2.	109

LIST OF TABLES

Table 2.1: Results of the Repeated Measures ANOVA for Experiment 2.1 with Trust as within-subjects dependent variable and Compensation Size and Violation Type as Independent between-subjects Variables.	28
Table 2.2: Mean Increase in Trust (and Standard Deviations) as a Function of Violation Type and Financial Compensation Size for Experiment 2.1.	29
Table 2.3: Results of the Repeated Measures ANOVA for Experiment 2.2 with Trust as within-subjects dependent variable and Compensation Size and Violation Type as Independent between-subjects Variables.	36
Table 2.2: Mean Increase in Trust (and Standard Deviations) as a Function of Violation Type and Financial Compensation Size for Experiment 2.2.	37
Table 2.5: Percentages of Exit Choices as a Function of Violation Type and Financial Compensation Size for Experiment 2.3.	42
Table 2.6: Mean Trust Game Allocations (and Standard Deviations) of Victims towards Transgressors as a Function of Intent Ambiguity and Compensation Size for Experiment 2.4.	48
Table 3.1: Mean Trust Game Allocations (and Standard Deviations) of Victims towards Transgressors as a Function of Voluntariness and Compensation Size for Experiment 3.1.	66
Table 5.1: Mean Allocation in Round 2 as a Function of Restoration Type and Interaction Partner for Experiment 5.1.	102
Table 5.2: Mean Allocation in Round 2 as a Function of Restoration Type and Interaction Partner for Experiment 5.2.	108

CHAPTER 1

1. GENERAL INTRODUCTION

The issue of trust is inescapable when we interact with others in our social world. Whether we ask directions from a stranger or advice from a close friend, in many of our daily interactions we have to trust others in order to get somewhere. Given that the outcome of an interaction is often uncertain and depends on the actions of others, we frequently have to rely on trusting others, whether we like it or not. In such situations, having trust not only stimulates us to overcome this uncertainty and to engage in interactions with others, but it also fuels us to be more benevolent and cooperative towards our interaction partners, which in turn makes it also more likely that they will honor our trust and be cooperative as well. As such, trust serves as a social glue that facilitates interactions in all kinds of relations that individuals engage in.

Given the pervasiveness of trust in our daily lives, it comes as no surprise that scholars have put the topic of trust on research agendas in a variety of domains, including psychology, sociology, law and economics (Putnam, 1993; Fukuyama, 1995; Hardin, 2002; Gambetta, 1988; Kramer & Tyler, 1996; Tyler & Huo, 2002). In these fields, a shared understanding exists that trust is an important force that shapes and smoothens our interactional life. Across these disciplines, researchers have advocated trust as having numerous benefits to individuals, organizations or society as a whole (Kramer & Cook, 2004).

Psychologists, for example, have not only linked trust to love and happiness in close relationships (Rempel, Holmes, & Zanna, 1985), but also observed that in all kinds of relations trust functions as an important precursor of cooperation, which generates mutual benefits to interacting parties (Brann &

Foddy 1987; De Cremer, Snyder, & De Witte, 2001). For similar reasons, organizational scholars and economists have identified trust as a trademark of effective organizations, as it fosters cooperation while reducing the need for expenditures on control and monitoring (Bromiley & Cummings, 1996; Chiles & McMackin, 1996), increases performance (Dirks, 2000; Dirks & Ferrin, 2001, 2002) and enables effective negotiation (Kimmel et al. 1980; Valley, Moag, & Bazerman, 1998). Sociologists on the other hand, have pointed to the benefits of trust on a societal level. Trust according to them is a key component of social capital, which in turn is a necessary ingredient for social integration, economic efficiency and democratic stability (Coleman 1998; Gambetta, 1988; Fukuyama, 1995; Putnam, 1993; Newton, 2001).

Given the widespread benefits of trust, an important mission for researchers was to uncover the factors that underlie the presence or development of trust. Researchers therefore devoted considerable attention to studying the antecedents of trust. In this venture, scholars have for example shown that the level of trust that an individual has, can depend on the individual itself in the sense that individuals generally differ in their dispositional tendency to trust others (Rotter, 1967; 1971; Yamagishi, 1988). However, apart from these individual differences, research has also identified several situational factors that influence the degree of trust (see e.g. Kramer, 1999, for a review). Trust is for example also influenced by the prior interaction history with the interaction partner (Boon & Holmes, 1991; McAllister, 1995; Deutsch 1958), the social category that an interaction partner belongs to (Brewer, 1981) or the social role that an interaction partner occupies (Meyerson, Weick, & Kramer, 1996).

Despite the importance of trust in our daily lives, it took a long time before a consensus emerged on an overarching definition of trust. In fact, the broad interest by scholars from different disciplines generated a myriad of definitions, in which trust took different forms depending on the field it was

studied in. In the behavioral tradition, for example, sociologists and economists have often viewed trust as a rational decision to cooperate, based on confidence and expectations (Gambetta, 1988; Arrow, 1974). Under the influence of the psychological tradition, however, who argued that trust is not necessarily a condition for cooperation to occur (Mayer, Davis, & Schoorman, 1995), trust is now more and more being viewed as a psychological state that includes expectations, intentions and affect (Kramer, 1999; Lewicki, Tomlinson, & Gillespie, 2006). One of the most widely held definitions today therefore characterizes trust a “psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395).

1.1 TRUST IN ECONOMIC EXCHANGE RELATIONS

One type of relations in which trust has been shown to play a vital role is economic exchange relations, relations in which actors exchange tangible, economic resources. These relations are typically characterized by a high degree of interdependence as actors depend on each other with regard to the outcomes they receive. This dependence on another’s actions can however make actors uncertain whether they will receive the desired outcomes and induce a strong fear of exploitation. Given that trust is considered to be particularly important when interactions involve risk-taking and actors are interdependent, the interdependence in exchange relations and the associated risk with being vulnerable to the actions of others therefore already highlight the importance of trust to initiate and preserve cooperative interactions (Rusbult & Van Lange, 1996; Rousseau et al., 1998; Boon & Holmes, 1991).

For a long time, however, the literature on economic exchange was dominated by a vision in which trust was considered as unnecessary or irrelevant to preserve cooperation, as the uncertainty and risk associated with the outcome dependencies could also be reduced by other mechanisms that enable cooperation, such as contracts or control mechanisms that reward cooperation and sanction defection (see e.g., Williamson, 1993). Research has now proven that such instruments actually are only a weak substitute for trust, as contracts are often incomplete and control mechanisms are seldomly flawless (Sitkin & Roth, 1993; Sako & Helper, 1998). Moreover, these mechanisms are often not as effective as hoped for, because they undermine cooperation that is voluntary (Fehr & Gächter, 2002) and decrease performance (Falk & Kosfeld, 2006). Furthermore, contracts and control mechanisms are more expensive and increase transaction costs (Dyer & Chu, 2003; Bromiley & Cummings, 1996). Therefore scholars nowadays agree that trust is both beneficial and necessary in exchange relations, as it is a cheap and more effective way to create long-term cooperation (Kramer, 1999; Lorenz, 1999; Zaheer & Venkatraman, 1995).

Given the advantages of trust in exchange relations, scholars have devoted considerable attention to studying what drives trust between actors in these particular relations. Although there is common ground on a definition of trust these days, it is important to note that researchers also agree that trust can take different forms and is shaped by different concerns depending on the type of relation it functions in (Rousseau et al., 1998; Sheppard & Sherman, 1998; Lewicki, Wiethoff, & Tomlinson, 2005). According to some influential models, economic exchange relations are typically characterized by a more cognitive, calculus-based trust as opposed to a more relational, identification-based trust (Lewicki & Bunker, 1995, 1996; Lewicki et al., 2005; Rousseau et al., 1998; see also the difference between cognition- and affect-based trust, McAllister, 1995).

Whereas identification-based trust refers to a trust that is rooted in an accrued understanding and appreciation of the other's values, motives and desires, calculus-based trust is a more market-oriented calculation where people decide to trust based on the expectancy of receiving a specific, tangible benefit (Lewicki & Bunker, 1996; Lewicki et al., 2005). The focus of calculus-based trust is therefore more on the transaction (exchange) itself and trust is built through a consistent delivery of the valued outcomes that one expects. Calculus-based trust is thus particularly driven by instrumental, outcome-related concerns and the trustworthiness of an interaction partner is derived from the favorability of the outcome of a transaction with this person. In relations that have developed identification-based trust, however, the focus is more on the relation itself as actors have developed emotional attachment and trust is more driven by affect and interpersonal concern than just by the outcomes of a transaction (Lewicki & Bunker, 1996; Rousseau et al., 1998; McAllister, 1995).

Given that in economic exchange relations interactions mainly consist of resource allocations between agents, scholars have argued that when actors enter in an economic exchange relation, trust is typically more calculus-based than identification-based (Rousseau et al., 1998; Lewicki et al., 2005). Over time, however, repeated interactions in which trust is reciprocated can cause trust to solidify, attachment to rise and the relation itself to become the basis of trust. For the nascence of this stronger, identification-based trust then, it is imperative that actors can reliably depend on the interaction partner to satisfy their instrumental concerns by consistently providing the desired transaction outcome.

Despite this importance of repeated reciprocation for calculus-based trust to develop, we can see that actors in exchange relations from time to time defect and engage in behaviour that violates their interaction partner's expectations, risking trust to erode and cooperation to disappear. Can trust be repaired in such

situations? Are there actions that can be undertaken to increase trust again and what factors determine their effectiveness? These are some of the key questions that will be covered in this dissertation.

1.2 VIOLATIONS OF TRUST AND TRUST REPAIR

If we look at the literature on trust in exchange relations, it becomes painstakingly clear that a strong emphasis on the presence and benefits of trust has long lead scholars to leave the issue of violated trust and, more importantly, the question whether trust can be repaired, in an empirical shade (De Cremer & Desmet, in press). Part of the reason for this is that the negative consequences of trust violations are detrimental: not only can trust violations result in an immediate decline of cooperation, they can also incite victims to actively seek revenge (Bies & Tripp, 1996) or poison the relation with suspicion and distrust, which has adverse effects for the relation in the long run (Elangovan, Auer-Rizzi, & Szabo, 2007). Trust therefore seems easier to destroy than to build and accordingly, the divide between the relative ease of losing someone's trust compared to gaining it has led scholars to devote little attention to the issue of trust repair, as repairing trust might be even more difficult than establishing trust in the first place. (Kim, Ferrin, Cooper, & Dirks, 2004; Kim, Dirks, Cooper, & Ferrin, 2006).

Over the last few years, however, researchers have slowly begun to investigate the workings of trust repair. In this venture, scholars have mainly studied the effectiveness of verbal repair efforts by the offender, such as apologies, excuses, or promises (e.g., Kim et al., 2004; 2006; Tomlinson, Dineen, & Lewicki, 2004; Schweitzer, Hershey, & Bradlow, 2006; De Cremer & Desmet, in press). These studies for example showed that offering a sincere apology or an explicit promise of future trustworthy behavior may sometimes indeed yield positive

effects on trust (Tomlinson et al., 2004; Ohbuchi, Kameda, & Agarie, 1989; Kim et al., 2004; 2006; Schweitzer et al., 2006).

As mentioned before, in economic exchange relations, interactions are characterized by the allocation of tangible outcomes. As a result, a trust violation in these relations often results in distributive harm for the victim (i.e. an actor does not provide the resources the victim was hoping to get). Given that trust in these relations is typically more calculus-based and actors are particularly sensitive to the outcome of a transaction, receiving an apology or a promise of future cooperative behavior from the transgressor might be regarded by victims as “cheap talk” and therefore not the most effective way to restore trust following distributive harm (Bottom, Daniels, Gibson, & Murnighan, 2002).

Indeed, as trust can have a more transactional or relational basis depending on the relationship between the actors, violations of these different types of trust might also call for different restorative strategies (Lewicki & Bunker, 1996; Lewicki et al., 2005). Whereas sincere and elaborate apologies might be efficient in addressing the thwarted relational concerns of identification based-trust, in economic exchange relations, where trust is more calculus-based and shaped the outcome of the transaction, addressing relational concerns alone by apologizing might not be enough. More precisely, when trust is violated in economic exchange relations and victims are denied the valuable resources that they expected, the process of trust repair in these relations may first of all require efforts that address victims’ outcome-related concerns. Actions may therefore speak louder than words and transgressors may need to address the distributive harm first by providing a financial compensation to the victim.

Looking at daily life conflicts in which trust has been violated through distributive harm, we can indeed see that a common approach in exchange relations consists of the transgressor providing a financial compensation to the

victim: customers with complaints about a product are often reimbursed; companies that are being sued, often try to make a financial settlement with the victim. Despite this widespread use of financial compensation as restorative response to distributive harm, little is known about how these financial compensations impact victims' trust towards the transgressor. Can financial compensations actually increase trust following distributive harm? What factors influence their effectiveness? These are the central questions that I will try to answer throughout this dissertation

1.3 OVERVIEW OF THE PRESENT DISSERTATION

Whereas the provision of a financial compensation is a common strategy in response to distributive harm, not much is known about how these compensations affect victims' trust. In the present dissertation I will provide an overview of four streams of research that I conducted to shed more light on this issue.

Starting with the basic question whether financial compensations increase trust, we move onwards to examine the factors that determine the effectiveness of providing a financial compensation. Given the importance of outcomes for trust in economic exchange relations, is the size of a compensation important and do larger compensations foster more trust? Is it only outcome favorability that underlies the effect of financial compensations or are there other, immaterial aspects that also shape their effectiveness, such as whether a compensation was provided voluntarily or ordered by a third party?

In the next four empirical chapters, I will explore several factors that influence the effect of a financial compensation on victims' trust. In this venture, I will not only look at how aspects of the compensation itself affect trust, but also describe how specific characteristics of the violation, the victim, and the

transgressor interact in shaping victims' reactions to a compensation. Furthermore, throughout these four chapters, the effectiveness of financial compensations will not only be evaluated in terms of the levels of self-reported trust they foster, but also in terms of the behavioural repercussions they entail.

Chapter 2

Chapter 2 aims to provide empirical answers to some basic first questions regarding the effectiveness of financial compensations: Can financial compensations increase trust again and is the size of the compensation relevant to this process? Is it enough for a transgressor to exactly repay for the damage or does the process of trust repair require more effort? In Chapter 2, I will argue that financial compensations can indeed increase trust towards a transgressor, but whether the size of the compensation is important depends on how trust was violated and more precisely, on the degree to which the violation could be attributed to bad intent. Throughout four experiments that were conducted to address these questions, I will show that providing a compensation that is larger than the harm done, can actually foster more trust than exactly restoring the harm, but not if the transgressor's intention to transgress was clear. The experiments reported in Chapter 2 evaluate the effectiveness of financial compensations in terms of the increase in victims' self-reported trust they foster (Experiment 2.1, 2.2), in terms of whether or not victims are inclined to continue the relationship (Experiment 2.3) and in terms of victims' subsequent behaviour towards the transgressor in a trust game (Experiment 2.4).

Chapter 3

Chapter 2 shows that larger compensations can foster more trust, although this depends on how trust was violated (i.e. the extent to which bad intent becomes

clear in the violation). Chapter 3 moves one step further and investigates whether the effect of compensation size also depends on *how* the compensation is provided. In the studies reported in Chapter 2, the decision to compensate was made by the transgressor on a voluntary basis. In the course of real-life violations, however, voluntary acts of repair appear to be an exception rather than a rule, as actors in exchange relations often let a third party decide whether and what reparation is appropriate (cf. tort litigation). Do victims care whether a compensation is provided voluntarily or not, or do they primarily value the size of the compensation when deciding to trust again? In contrast to outcome-based models of economic behavior which would predict that victims only care about the outcomes they receive and therefore would only consider the size of the compensation, in Chapter 3, I will argue that larger compensations will only foster more trust if they also reflect good intent on behalf of the transgressor (i.e. when they are provided voluntarily). Experiment 3.1 was designed to investigate the impact of this third-party intervention, using the paradigm of a trust game.

Chapter 4

Chapter 2 and 3 evaluate the effectiveness of financial compensations as a function of situational characteristics of the violation (clarity of intentions) or the compensation (size, voluntariness). In Chapter 4, I will take a broader perspective and also examine how personality characteristics of the victim influence the effectiveness of financial compensations. Given that the explicit focus of this dissertation lies on restoration processes, I deemed it would be an interesting first step to investigate how individual differences in people's tendency to forgive impact how financial compensations are perceived, processed and reacted upon by victims. As forgiveness is typically viewed as something that is given and not necessarily earned, in Chapter 4, I hypothesize that people with a higher tendency to forgive will be less sensitive to whether a restoration attempt expresses the

transgressor's repentance or not. Given that voluntary compensations are more likely to communicate offender's repentance than compensations that were forced by a third party, Experiment 4.1 tested the meditational hypothesis that whereas receiving a voluntary compensation from the transgressor communicates more repentance to victims than when this compensation is imposed, particularly people with a low tendency to forgive will discount this repentance in their decision to trust again.

Chapter 5

Chapters 2-4 study the effectiveness of financial compensations when offered in isolation. In real life, however, a commonly heard claim is that victims often do not consider a financial compensation as enough and that sometimes they explicitly wish to receive a formal apology too. In Chapter 5, I will examine whether in the event of distributive harm in exchange relations, providing an apology in addition to a financial compensation fosters more trust than the sole provision of a compensation. As financial compensations particularly address outcome related concerns and apologies more explicitly speak to relational concerns, I will argue that the addition of an apology will be more effective in situations in which relational concerns are also salient. More specifically, in Chapter 5, I hypothesize that adding an apology to a compensation can indeed result in more trust, but particularly so when victims are interacting with a group rather than with an individual. In Experiment 5.1 and 5.2, I tested this hypothesis within the context of a trust game, incorporating both behavioural and self-reported measures of trust, as well using both basic and elaborate apologies.

Chapter 6

In Chapter 6, I will summarize and integrate the main empirical

observations that were gathered in the course of this dissertation. In doing so, I will discuss the most important implications and contributions of our findings, as well as pinpoint possible limitations and explore worthwhile avenues for future research.

Finally, I would like to note that Chapters 2 to 5 are all based on papers that have been published or submitted for publication. As a result, each of these chapters can be read separately of the other chapters, but this also implies that the reader may encounter some overlap between parts of this dissertation.

CHAPTER 2

2. HOW THE TYPE OF VIOLATION AFFECTS THE IMPACT OF COMPENSATION SIZE: THE ROLE OF INTENT AMBIGUITY¹

2.1 INTRODUCTION

In exchange relations in which monetary resources have to be divided between two parties, such as in bargaining games, people prefer allocations to be divided in an equal way (Camerer & Thaler, 1995; Pillutla & Murnighan, 2003; Handgraaf, Van Dijk, & De Cremer, 2003; Van Dijk, De Cremer, & Handgraaf, 2004). Consequently, a violation of the equality rule in these mixed-motive situations is generally perceived as unfair and invites a host of negative reactions (Pillutla & Murnighan, 1996; Stouten, De Cremer, & Van Dijk, 2006). One of the most important consequences of such violations is that trust in the allocating party decreases (Bottom, Daniels, Gibson, & Murnighan, 2002; De Cremer, Van Dijk, & Pillutla, 2010; Schweitzer et al., 2006). Trust has been defined as “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395). Based on this definition, a violation of positive expectations -such as expecting an equal share- should have a negative impact on trust.

Given the fact that many instances exist where people’s positive expectations towards the actions of others are violated (e.g. Lewicki & Bunker, 1996; Elangovan & Shapiro, 1998; Bottom et al., 2002; Kim et al., 2004; Tomlinson et al., 2004; Kim et al., 2006; Schweitzer et al., 2006), it is surprising to see that to date hardly any research has examined the extent to which trust can

¹ This chapter is based on Desmet, De Cremer & Van Dijk (2011a)

be restored again, particularly when equality expectations are violated. Even more so, in the psychology literature in general, the issue of how violated trust can be effectively restored has not received much theoretical and empirical attention yet (Kim et al., 2006; Dirks, Lewicki, & Zaheer, 2009).

Acknowledging the numerous negative consequences of lowered trust (see e.g. Jones & George, 1998; Kramer, 1999), it seems more than ever necessary to understand *how* and *when* specific restoration tools may be effective in promoting trust again. In exchange relations, when distributive harm emerges, a common restorative approach is for transgressors to restore the monetary loss by providing a financial compensation to the victim. As trust in economic exchange relations has been argued to be driven particularly by a concern for tangible outcomes, financial compensations should then indeed be able to facilitate the process of restoring trust (cf. Lewicki et al., 2005). Moreover, such a calculative view on trust also implies that larger compensations should foster more trust. Unfortunately, however, research to date (at least to our knowledge) has not yet addressed the specific question to what degree providing financial compensations in response to distributive harm can actually increase trust in the transgressing party and whether the size of the compensation is relevant in this process.

In an effort to address this question, we present results from four experimental studies that examined how and when financial compensations may help in restoring people's trust after trust was initially violated by an unfair allocation of outcomes. In this exchange context, we investigated whether financial overcompensations (i.e. the victim of the trust violation ends up with higher final financial outcomes) may be more effective than exact compensations (i.e. both the transgressor and the victim of the trust violation end up with equal final outcomes). Furthermore, in line with the idea that the effect of financial compensations may depend on whether the transgression was intentional or not, (Darley & Pittman, 2003), we develop the argument that the impact of the size of a

financial compensation on trust repair will depend on whether the initial trust violation could be attributed to bad intent or not.

2.1.1 Repairing trust with financial compensations

In the event of distributive harm, a widespread response in economic exchange relations consists of providing a financial compensation to the victim: If a customer has complaints about a product, he is reimbursed; when a company is being sued, it often tries to make a financial settlement with the victims. To examine the impact of compensations on a victim's trust towards the transgressor, and to assess what factors influence its effectiveness, it is first of all useful to zoom in on what has been argued to drive trust in these types of exchange relations.

Apart from a broad consensus on an overarching definition of trust, scholars also appear to agree that trust can take different forms and is shaped by different concerns depending on the type of exchange relation one is involved in (Rousseau et al., 1998; Sheppard & Sherman, 1998; Lewicki, McAllister, & Bies, 1998). One of the most widely used theoretical models, for example, depicts trust in economic exchange relations as more calculus-based as opposed to identification-based (Lewicki & Bunker, 1995; 1996; Lewicki et al., 2005). Whereas identification-based trust in this context is seen as trust driven by an identification with the other's desires and motives, calculus-based trust is a more market-oriented, economic calculation: actors decide to trust based on the expectancy of receiving a specific, tangible benefit (Lewicki & Bunker, 1995; Lewicki et al., 2005). As such, in economic exchange relations - where interactions occur mainly through the giving and receiving of economic resources -

particularly outcome related concerns should determine one's trust and trustworthiness.

Given this proposed preoccupation with outcomes in exchange relations, scholars have argued that receiving a financial compensation in response to distributive harm should be an effective tool in restoring a victim's trust (Lewicki et al., 2005; Ren & Gray, 2009). Recent findings by Bottom et al. (2002), in the context of a multiple round prisoner's dilemma, provided empirical support for this claim by showing that cooperation, after a party had breached it, was effectively rebuilt when the transgressor offered a substantial financial compensation. However, an interesting question that arises is to what extent the size of this compensation matters to victims of a trust violation.

In their study, Bottom et al. (2002) also manipulated the size of the financial compensation and observed that this manipulation had no influence: small compensations were as effective as larger compensations in restoring cooperation. Note, however, that both the small and the large compensations used in Bottom et al. (2002) did not cover the victim's economic loss entirely. This is an important point to make, because given the above stated preoccupation with outcomes in economic exchange relations, when a violation is paired with a clear financial loss, as it is the case in most incidents of distributive harm, the size of this loss could be an important anchor point for victims when evaluating a financial compensation. Therefore, if we want to study the effect of the size of a compensation, we believe it is essential to compare compensations that vary relative to the victim's perceived loss: Does one need to repay the exact amount (*exact compensation*) to restore trust, or is it enough to provide a smaller financial gift to signal repair intentions (*partial compensation*)? Or maybe the transgressor ought to show even more goodwill, by giving back more than the initial loss (*overcompensation*). Research to date has not yet provided an answer to this question.

Insights from the distributive justice literature would suggest that victims will be mainly concerned with the degree to which this compensation re-establishes equal or equitable outcomes (e.g. Greenberg, 1982; Messick, 1993; Rabin, 1998). According to this view, one would expect victims to be more satisfied with an exact compensation of their loss than with a compensation that only partially restores their loss. However, scholars have suggested that the process of repairing trust may call for a different strategy than building trust initially, requiring efforts that are larger in magnitude than those needed for initial trust development (Kim et al., 2004). Therefore, when it comes to restoring perceptions of trustworthiness, the act of repairing trust may ask more from a transgressor than simply restoring the outcome situation that a victim already expected to get in the first place (i.e., an equal share; Messick, 1993).

According to this view, trust might be restored further if the transgressor shows that he is willing to go the extra mile to maintain this relationship. Following the calculus-based view on trust in exchange relations, a transgressor can do this by providing a compensation that constitutes a financial self-sacrifice that is more costly than a simple restoration of the distributive harm. Indeed, in economic relations, where interactions consist solely of the exchange of outcomes and the favorability of these outcomes serves as a reference for inferring one's intentions and trustworthiness (Lewicki et al., 2005), adding an extra compensation over the exact compensation could be more beneficial in signaling good intentions.

This idea also fits well with research showing that financial self-sacrifice promotes more cooperation and compliance (De Cremer & Van Knippenberg, 2002, 2004) and with research showing that overcompensation can be evaluated more positively when the other party is satisfied with the unequal distribution (De Cremer & Van Kleef, 2009). Moreover, recent findings in economic exchange relations have indicated that victims are in fact sensitive to the degree to which the

reparation incurs a financial loss for the transgressor: Ohtsubo and Watanabe (2009) observed that the more costly an apology is to the transgressor, the more favorable victims' reactions are when they receive it. Finally, findings in consumer behavior too have indicated that in the event of a service failure, overcompensation of the harm can result in more customer satisfaction than an exact compensation of the harm done (Boshoff, 1997; Webster & Sundaram, 1998; Davidow, 2003; Gilly & Hansen, 1985).

Building on these views and findings, we would expect that in economic exchange relations, trust can be restored more by a compensation that exceeds the harm done, as compared to a compensation that exactly restores the injustice. However, we also know from other literature that even in economic exchange relations, the favorability of the outcome may not always guide people's behavior when other information is available that indicates the allocating party's intentions and trustworthiness (Brockner & Wiesenfeld, 1996; De Cremer & Tyler, 2005; Falk, Fehr, & Fischbacher, 2008; Greenberg & Frisch, 1972; Tyler & Lind, 1992).

Specifically, in the restorative justice literature, it has been postulated that whereas in the case of unintentional harm people take into account the favorability of the compensations, they do not consider the provision of a compensation satisfactory when harm is inflicted intentionally (Hogan & Emler, 1981; Horai, 1977; Tyler, Boeckmann, Smith, & Huo, 1997; Darley & Pittman, 2003). In line with this idea, we reason that whether larger compensations will foster more trust, depends on the degree to which victims could attribute bad intent to the transgressor.

2.1.2 Intent ambiguity as a moderator of financial compensation effects

Prior research has demonstrated that when equality expectations are violated, people are motivated to seek explanations (Blount, 1995; Stouten et al.,

2006). In the search for explanations for this unfair behavior, people especially pay attention to information pertaining to intentionality and responsibility (Greenberg, 1990; Rutte & Messick, 1995; McCabe, Rigdon, & Smith, 2003). Interestingly, attributions about intentions are also seen as an important factor influencing trust perceptions. As trust has been referred to as confidence in another's intentions and motives (Deutsch, 1960; Mellinger, 1956), most researchers now agree that not only expectations about behavior but also perceptions of intent constitute crucial elements in the concept of trust (Rousseau et al., 1998; Mayer et al., 1995; Schoorman, Davis & Mayer, 2007). Therefore, it stands to reason that in the case of trust violations, victims will be motivated to know whether the transgressor had bad intentions or not and will use this information about intentions as a highly diagnostic criterion to base their future trust on. Consequently, a victim's attribution of intent can play an important role in how subsequent restoration attempts will be evaluated and affect trust.

Research by Kim and colleagues (2004; 2006) provides supporting evidence that information pertaining to the intentions of the transgressor indeed influences how subsequent repair efforts affect trust. Kim et al. (2004) had participants assume the role of a manager who had to evaluate a job candidate based on a videotaped interview. At his/her previous employment, this candidate had been accused of having misfiled a tax return either intentionally or due to inadequate knowledge. The authors found that when applicants were accused of an intentional violation, they were trusted more if they denied culpability than if they apologized (Kim et al., 2004). If, however, an apology was offered in the case of an intentional violation, it was better for the candidate to mitigate the blame to external factors (bad advice from others) than to take full responsibility (Kim et al., 2006). These findings thus demonstrate that when a violation is viewed as intentional, strategies to repair trust (i.e. apologies) may be less effective.

In economic exchange relations too, Schweitzer et al. (2006) identified perceptions of intent as a crucial element determining the success of future trust repair attempts. In their study, participants played a multiple round trust game as trustors who had to make investments in a fictitious trustee (see Berg, Dickhaut & McCabe, 1995 for a detailed description of the trust game). What Schweitzer et al. (2006) found was that after a violation (not returning the trustor's investment), trust could be restored to some extent by a series of trustworthy actions, combined or not with either a promise, an apology or both. Trust, however, never fully recovered when the transgressor's negative intentions became clear through the use of deception, despite goodwill operations such as apologies, promises and a series of trustworthy actions in the next rounds.

These studies by Kim et al. (2004; 2006) and Schweitzer et al. (2006) suggest that once a violation can be attributed to a transgressor's bad intent, positive restorative acts to communicate trustworthiness such as apologies or promises become less effective in repairing trust, whereas when it is less easy to attribute intent, victims are more susceptible to an offender's reparative actions (see also Struthers et al., 2008). Kim and colleagues (2004; 2006) explained these results by stating that information about the intentionality of a trust violation conveys important negative information about a transgressor's integrity (an important determinant of trust, Mayer et al., 1995). When forming an impression, these authors argue, people tend to weigh negative information regarding someone's integrity more heavily than positive information about one's integrity (Kim et al., 2004,2006; Reeder & Brewer, 1979). Therefore, when a trust violation can be attributed to bad intent, the negative (and thus highly diagnostic) information about one's integrity will outweigh the positive (and thus less diagnostic) information of an apology when deciding to trust again. As a result, once a transgression can be attributed to bad intent, victims will be less sensitive to the positive information comprised in the offender's reparations.

We believe that in economic exchange relations, a similar attribution process will underlie the effectiveness of financial compensations. More precisely, we hypothesize that when it is ambiguous whether a violation was intentional, victims will indeed use the financial compensation and its size to determine the other's trustworthiness and their trust (cf. calculus-based trust). However, when a violation can be clearly attributed to bad intent, victims will discount this negative information more strongly (see Reeder & Brewer, 1979, Kim et al., 2004, 2006) and hence will be less sensitive to the financial compensation and the goodwill that its size conveys.

Recent findings by neuroscientists investigating trust in economic exchange relations also provide support for this hypothesis. Delgado, Frank and Phelps (2005) examined how prior information about the integrity of an interaction partner influenced subsequent trust game behavior. These authors found that whereas normally trust in these relations is guided by a reward feedback system in which agents base their trust on the rewards they receive from the trustee (i.e. calculus-based trust), when negative information regarding the trustee's integrity was provided prior to the interaction, trustors were less inclined to base their decision to trust on the outcomes they received from the trustee, despite the fact that these outcomes signaled trustworthiness.

In the restorative justice literature too, it has been argued that whereas in the case of unintentional harm victim's reactions are shaped by the favorability of the compensation they receive, when harm is intentional, outcome favorability will matter less (Darley & Pittman (2003). The rationale behind this assertion is that when distributive harm is inflicted unintentionally, the only harm done is distributive, whereas when a transgressor purposely violates norms of distributive justice, this violation of intentionality also needs to be addressed. Therefore, it has been argued that in the case of intentional violations, the favorability of the

compensation will matter less since both instrumental and relational concerns need to be addressed (Okimoto & Tyler, 2007; Tyler et al., 1997).

Overall, these studies suggest that if bad intent can be attributed to the transgressor, a goodwill operation by the transgressor to signal his/her regained good intentions may be of less value to the victims than when the transgressor's bad intentions were not that clear. In line with this thought, we hypothesize that if the intentions of the transgressor to act unfairly are abundantly clear, the violated party may be quite certain that building up a relationship with the transgressor is not viable (i.e. victims will display less willingness to give the other the benefit of the doubt). Thus, in this situation, we believe that an overcompensation may not make a transgressor seem more credible and will not restore trust more than an exact compensation. However, in the situation in which the intentions of the transgressor are less obvious, the violated party should be more inclined to give the transgressor the benefit of the doubt. Under this condition, people will show more willingness to take into account information communicating the violator's benign intent (i.e. the favorability of the compensation). As such, an offer from the transgressor to over-compensate the financial harm done to the victim will more effectively influence the violated party's trust.

2.1.3 The present research

Thus far, some evidence exists that financial compensations in economic exchange relations may have the potential to positively influence trust, but under which conditions this approach will be most effective still remains empirically uncertain.

We hypothesize that the positive impact of financial compensations will be a function of how clear the intentions of the transgressor were in the transgression. More precisely, we expect an overcompensation to promote trust

more than an exact compensation or a partial compensation, but only so when the transgressor's intention to transgress was not clear. In this case, victims will be more likely to give the transgressor the benefit of the doubt, as such providing some leeway for the transgressor to do his or her utter best to convince the victim of his/her good intentions (e.g. by providing overcompensation)². If bad intentions, however, became clear throughout the violation (through the use of deception or by an overt statement indicating bad intent), the favorability of the compensation will matter less in such a way that overcompensation will not reveal any additional benefits relative to an exact compensation.

We tested this hypothesis across four experiments in which we operationalized trust in terms of judgments and behavior.

2.2 EXPERIMENT 2.1

Experiment 1 consisted of a scenario study. For this purpose, we made use of a simple yet concise allocation paradigm rooted in a dictator game. In the dictator game, resources have to be divided between two players. Each round, one player (the dictator) receives a certain endowment and can then decide how much of this endowment he/she wishes to allocate to the other player (recipient). As the recipient has to accept the offer made by dictator, his or her outcome fully depends on the dictator's decision. When being played over multiple rounds, however,

² We conducted a pilot study to verify whether trust is indeed violated when an unfair offer is given in a dictator game ($n=135$). Therefore, trust was assessed before and after a violation occurred. Results confirmed that initial trust ($M = 3.69, SD = 0.09$) was reduced following an unfair allocation ($M_{ambiguous} = 2.99, SD = 0.13; F(1,133) = 15.16, p < .001$) or an unfair allocation accompanied by deception ($M_{clear} = 2.41, SD = 0.13; F(1,133) = 83.19, p < .001$). In the same study we also assessed the degree to which participants were willing to give the transgressor the benefit of the doubt following a violation with ambiguous or clear intentions. Results indicated that following the act of solely receiving an unfair allocation (ambiguous condition), participants displayed more willingness to give the transgressor the benefit of the doubt ($F(1,133) = 7.74, p < .01, M_{ambiguous} = 3.88, SD = 0.18$), than when the transgressor had also lied about the distribution ($M_{clear} = 3.18, SD = 0.18$).

mutual interdependence between players can be induced by altering the roles (dictator or recipient) of the players each round.

In the scenario, participants were confronted with a situation in which they were victim of an unfair allocation made by another person. Following this violation, the transgressor offered a financial compensation as a response to this unfair distribution. The size of the compensation was manipulated across three levels. Participants could receive a compensation that provided both parties with equal final outcome distributions (exact compensation), changed the unequal distribution in favor of the victim (overcompensation) or restored the distribution close to, but still fails to reach equality (partial compensation).

In light of our research questions, the use of the dictator paradigm has the advantage that it allows us to zoom in on how an unfair offer affects trust perceptions in a direct way, as the recipient is not able to reject the offer. Furthermore, the fact that the recipient cannot influence his or her outcome (as it is the case in bargaining games and prisoner's dilemmas) also allows us to manipulate the exact size of the compensation in a more controlled manner in a second phase of the game: the partial, exact and overcompensation can be directly based on the sole actions of the violator, without having to take into account the victim's prior behavior.

While most empirical studies on trust repair solely measured end-state trust, i.e. an absolute measure of trust following the repair attempt (Kim et al., 2004, 2006), we agree with recent theorizing that in order to evaluate the effectiveness of repair efforts properly, it is necessary to look at the relative increases in trust perceptions they foster (Dirks et al., 2009). Therefore, in the present experiment, we assessed trust repair more directly by employing a relative measure, in which we measured trust twice: one time prior to the repair attempt and a second time after the repair attempt. Assessing particular perceptions of trust

across time hence allowed us to evaluate the efficiency of the different compensations by comparing the degree to which they promote *increases* in trust.

2.2.1 Method

Participants and design. 132 participants (65.2 % female, 34.8% male) were recruited at a Dutch university and randomly assigned to one of the six experimental conditions of our 2 (Violation type: ambiguous or clear) x 3 (compensation size partial, exact or over-compensation) x 2 (repeated measures of trust) design. Participants were on average 20 years old ($SD = 2.23$ years) and all participants volunteered to participate in a “decision-making experiment”. Participants’ trust was measured prior to and after the financial compensation was given, thereby creating a within-subjects variable (trust, 2 levels: prior to vs. after the unfair allocation).

Experimental procedure. On arrival at the laboratory, participants were escorted to separate cubicles and were given a questionnaire.

Violation manipulation. The scenario explained to participants that they were working as a software engineer at the R&D department of a successful software company. They were told that they were working on a number of research tasks together with another software engineer. Participants were explained that they and the other performed the same amount of research and that the quality of the work done was similar. One of the team members then received a certain amount of money, which had to be divided between the two of them for the purpose of this research. This amount was presented as a quantity of units of which each unit represented the value of 1000 Euros. It was further said that by chance it was decided that the other person had to distribute the sum for this

month. Participants were informed that the amount of money to be distributed could vary, but on average consisted of 10 units.

Subsequently, participants in the clear violation condition read that their co-worker emailed them the following message: “I received 10 units to distribute this month, so I decide to give you 5”. In the ambiguous violation condition, participants received a message simply stating that their co-worker had decided to give 5 units to them. After the allocation was made, participants in both conditions read that their co-worker in reality had 20 units to distribute. This information hence made it clear to participants that an unfair distribution happened in which participants ended up with 5 units, while the transgressor kept 15 units.

Financial compensation manipulation. Participants were then asked to imagine that they had sent the co-worker an email in which they addressed the (unfair) distribution of this month. They read that the co-worker responded by saying that, “Concerning this month’s distribution, I have decided to give you x units extra.” This amount of units (x) was manipulated over three levels. In the exact financial compensation condition, participants were told that the other had decided to give them 5 extra units, resulting in a final equal 10 -10 distribution (i.e. exact financial compensation). In the partial compensation condition, participants were told that their co-worker had given 4 extra units, making a final distribution in which participants ended up with 9 units and their co-worker with 11. Participants in the overcompensation condition received 6 extra units, resulting in a distribution in which participants ended up with 11 units, while their co-worker ended up with 9 units. Note that these last two conditions still depict unequal outcomes, but differ in the direction of the asymmetry: In the partial compensation condition, the transgressor still ends up with more than the victim, while in the overcompensation condition the transgressor decides to give the victim even more than an equal share.

Assessment of trust (restoration). After it was communicated to participants that the co-worker in reality possessed 20 units to distribute, trust towards the co-worker was measured using three items (7-point Likert scales, based on De Cremer, 2004; Mayer et al. 1995, benevolence). The items included were: (1) do you think this person is trustworthy?; (2) do you think this person will take your interest into account?; (3) do you think this person will take his own interest into account? (reverse scored). These scores were combined into a general measure of (violated) trust towards the other player (Cronbach's $\alpha = .62$). The very same questions were asked after participants were informed that the co-worker provided a financial compensation (Cronbach's $\alpha = .81$).

2.2.2 Results

Manipulation checks. To verify whether our violation type manipulation was successful, we asked participants on a 7-point Likert scale to what degree they felt that their co-worker had deceived them. We conducted a 2 (violation type: ambiguous or clear) x 3 (compensation size) ANOVA on the participants' score on this item. Results revealed a main effect for violation type, $F(1,126) = 25.38$, $p < .001$, $\eta^2 = .17$, indicating that participants in the clear violation condition ($M = 6.50$, $SD = 0.18$) reported feeling significantly more deceived than participants in the ambiguous violation condition ($M = 5.23$, $SD = 0.18$).

Trust restoration. We conducted a 2 (violation type) x 3 (compensation size) x 2 (trust: prior to vs. after the unfair allocation) Repeated Measures ANOVA with the latter factor being the within-subject factor. The results of this ANOVA are presented in Table 2.1.

Table 2.1: Results of the Repeated Measures ANOVA for Experiment 2.1 with Trust as within-subjects dependent variable and Compensation Size and Violation Type as Independent between-subjects Variables.

Source	<i>df</i>	<i>F</i>	<i>Partial η^2</i>	<i>P</i>
<i>Within Subjects</i>				
Trust	1	158.29	.56	0.00
Trust \times Compensation Size	2	13.06	.17	0.00
Trust \times Violation Type	1	.75	.01	.39
Trust \times Compensation Size \times Violation Type	2	4.35	.07	.02
Error	126	(0.70)		
<i>Between Subjects</i>				
Compensation Size	2	11.28	.15	0.00
Violation Type	1	1.59	.01	0.21
Compensation Size \times Violation Type	2	2.93	.04	.06
Error	126	(0.99)		

Note: Values enclosed in parentheses represent mean square errors.

First, we examined the main effect for our repeated trust measure. The significant effect indicated that trust increased following a financial compensation, $F(1,126) = 158.29$, $p < .001$, $\eta^2 = .56$. Consistent with the findings of Bottom et al. (2002), our findings indicated that violated trust ($M = 1.74$, $SD = 0.06$) was restored to some extent by providing a compensation ($M = 3.04$, $SD = 0.10$).

Closer examination of this effect (post-hoc comparisons with Bonferroni correction) showed that compensations increased trust significantly in all six experimental conditions.

Also, a significant two-way interaction effect between trust and compensation size emerged, revealing that the increase in trust depended on the size of the compensation, $F(2,126) = 13.06$, $p < .001$, $\eta^2 = .17$: larger compensations elicited more trust repair. Furthermore, a significant three-way interaction confirmed our interaction hypothesis by indicating that the degree to which violated trust increased, depended on the interplay between violation type and compensation size, $F(2, 126) = 4.35$, $p < .05$, $\eta^2 = .07$.

To examine whether this three-way interaction followed the predicted pattern, we performed a series of comparisons. The mean increases in trust are displayed in Table 2.2.

Table 2.2: Mean Increase in Trust (and Standard Deviations) as a Function of Violation Type and Financial Compensation Size for Experiment 2.1.

Violation Type	<i>Partial Compensation</i>	<i>Exact Compensation</i>	<i>Overcompensation</i>
Ambiguous	0.71 (0.25) ab	1.21 (0.26) b	2.26 (0.24) c
Clear	0.48 (0.24) a	1.82 (0.28) b	1.35 (0.25) b

Note: Higher ratings indicate higher levels of trust restoration (mean increase in trust on a 7-point Likert scale). Standard deviations are in parentheses. Means with different subscripts differ significantly from each other after post-hoc comparisons (with Bonferroni adjustment).

Results of the post-hoc comparisons (with Bonferroni adjustment for multiple comparisons) confirmed our hypothesis that for people confronted with clear intent by the transgressor, trust did not increase more after an

overcompensation as compared to an exact compensation, $t(126) = 1.24$, *ns*, whereas for people in the ambiguous violation condition, receiving an overcompensation did increase trust significantly more than when an exact compensation was provided, $t(126) = 2.99$, $p < .005$. Inspection of these means further revealed that in the clear violation condition, trust was restored more effectively by an exact compensation than by a partial compensation, $t(126) = 3.65$, $p < .001$, while in the ambiguous violation condition this difference was in the same direction, but not significant, $t(126) = 1.37$, *ns*.

2.2.3 Discussion

As expected, the results showed that the degree to which trust increases depends on the violation type and the compensation size. For people who were subjected to a trust violation that did not clearly reveal the violator's intention (i.e. ambiguous violation condition), being offered a financial compensation that overcompensated for the unequal distribution did increase trust perceptions more than a compensation that restored equality. On the other hand, when bad intent was clear to the victim (as deception was used), receiving a financial overcompensation did not increase trust towards the transgressor more than an exact compensation. Apart from this predicted interaction effect, the results of Experiment 2.1 also revealed that trust increased following a compensation, for all three manipulated sizes (partial, exact and overcompensation). These results thus also support previous findings by Bottom et al. (2002) that (at least substantial) financial compensations have the capacity to increase trust.

2.3 EXPERIMENT 2.2

The main goal of Experiment 2.2 was to replicate the findings of Experiment 2.1, but now in a controlled laboratory experiment. Further, although our results were in line with our theoretical framework, we cannot be certain that the lack of effect in our “clear violation condition” was due to the fact that in this condition the transgressor’s intent to allocate unfairly was clear or because deception was used by the transgressor, hence making the violation more extreme. Indeed, one could argue that deception aggravates the violation, by adding another transgression to the first one: the transgressor not only provides an unfair outcome, but also lied about it.

For that reason, in Experiment 2.2, we included an extra condition in which the transgressor made his/her bad intentions clear, but did not aggravate the violation by engaging in the act of deception. More precisely, in this additional condition, the transgressor made an unfair offer but truthfully communicated the amount of resources that he/she had to divide. Following the alternative explanation above, one would expect that in this condition, as there is only one transgression (unfair distribution) and no deception, similar results would emerge as in the ambiguous condition (i.e. trust will increase more by an overcompensation than by an exact compensation). However, if it is the ambiguity of the transgressor’s bad intent that will determine whether an overcompensation can restore trust more than an exact compensation, we would expect no difference between the two clear conditions: as both conditions make clear the transgressor’s bad intent (by a deceptive or by an honest statement indicating bad intent), an overcompensation will not be more effective than an exact compensation in both cases.

As in Experiment 2.1, financial compensation size was again manipulated over three levels (partial, exact, or over-compensation).

2.3.1 Method

Participants and design. 213 participants from a Dutch university (73.6% female, 26.4% male) were randomly assigned to one of the nine experimental conditions of our 3 (violation type: ambiguous, clear with deception, clear without deception) x 3 (compensation size: partial, exact or over-compensation) x 2 (repeated measures of trust) design. Participants were on average 19 years old ($SD = 1.74$ years) and all volunteered to participate in a “decision-making experiment”. As in Experiment 2.1, we assessed participants’ trust perceptions prior to and after the financial compensation was given, creating an additional within-subjects variable (2 levels).

Experimental procedure. Upon arrival in the laboratory, participants were seated in separate cubicles. All instructions were given via the computer.

Violation manipulation. At the beginning of the experiment, participants received instructions that they would be paired with another person present in the lab with whom they would engage in multiple rounds of an interaction task. Participants learned that each round, an amount of chips were to be allocated to one player, who then had to decide how much of these chips he/she would keep, and how much he/she would allocate to the other. The chips were said to have a financial value, as participants were told that the more chips they earned, the more chance they would have in winning a lottery prize of 20 Euros. Participants were informed that the number of chips that the allocator could distribute each round could vary, but on average would be 10 chips. Next, participants were told that each round the computer would randomly decide who would be the allocator and who would be the recipient (alternating roles). After these instructions, all

participants were informed that the other participant would start off to allocate the chips in the first round. In reality, participants would only play one round with a fictitious other player.

Similar to Experiment 2.1, participants in the *clear (deception) violation condition*, then received a message from the other player stating: “I received 10 chips to distribute, so I decided to give you 5”. In the *ambiguous violation condition*, participants viewed a message simply stating that the other person decided to give five chips to them. In addition to these two, a second clear violation condition was created in which no deception was used. In this *clear (no deception) violation condition*, participants received the following message from the other player: “I received 20 chips to distribute, so I decided to give you 5”. After this allocation, participants in all three conditions received a brief overview with respect to the allocations that were made, including information about how many chips there were to be distributed and how many chips each party received. Here, participants in all three conditions became aware that the other player in reality had received 20 chips to distribute.

Financial compensation manipulation. Participants were then informed that the other player had been offered the possibility to re-evaluate his/her allocation and was given the opportunity to re-allocate the chips given to oneself or not. Following this intervention, participants received a message from the other person noting that he/she had decided to give away a certain amount of chips. This manipulation was exactly the same as in Experiment 2.1, including an exact compensation condition (final distribution is 10 chips for the transgressor and 10 for the participant), an overcompensation condition (final distribution is 9 chips for the transgressor and 11 for the participant), and a partial compensation condition (final distribution results in 11 chips for the transgressor and 9 for the participant).

Assessment of trust (restoration). As in Experiment 2.1, after participants discovered that the other player had in reality 20 chips to distribute, trust towards the other player was measured using three items (7-point Likert scales, based on De Cremer, 2004; Mayer et al. 1995, benevolence). The items included were: (1) do you think you can trust this person?; (2) do you think this person is trustworthy?; (3) do you think this person will take your interest into account? These scores were combined into a general measure of (violated) trust towards the other player (Cronbach's $\alpha = .71$). The very same questions were asked after the participants were informed that the other had provided a financial compensation (Cronbach's $\alpha = .75$).

2.3.2 Results

Manipulation checks. Several checks were included to verify whether participants correctly interpreted the information about the transactions (such as how many chips the other player had to divide, how much he/she decided to give or keep and how much compensation they received). 12 Participants failed to answer a substantial amount of these questions correctly and were removed from the sample, leaving a total of 201 participants included in further analyses.

To make sure that our violation manipulation was adequate in terms that participants would expect an equal division (an expectation that would be violated by the offer of the allocator), we conducted a separate pilot study ($n = 58$). To verify whether participants expected an equal distribution, participants were asked to give a distribution that they would expect. 50 participants (86.2 %) indicated that they expected an equal distribution, 8 participants expected an unequal distribution in favor of the other.

To check whether our violation type manipulation was successful, following the unfair allocation, participants answered on a 7-point Likert scale to

what degree the other had deceived them. A significant main effect of violation type was found, $F(2,55) = 44.20, p < .001, \eta^2 = .62$. Closer examination of this effect (post-hoc comparisons with Bonferroni adjustment) showed that participants in the clear (deception) violation condition ($M = 6.50, SD = 0.34$) felt significantly more deceived than participants in the clear (no deception) violation condition ($M = 2.47, SD = 0.35, p < .001$) or in the ambiguous violation condition ($M = 2.53, SD = 0.35, p < .001$). Participants in the ambiguous violation condition did not feel more deceived than participants in the clear (no deception) violation condition. To verify whether participants in both clear conditions also attributed more intent to the transgression, participants were asked to what degree they thought the transgressor made the distribution intentionally (7-point likert scale). The significant main effect, $F(2,55) = 12.86, p < .001, \eta^2 = .32$, and post-hoc comparisons (Bonferroni adjusted) showed that participants in the ambiguous violation condition ($M = 3.95, SD = 0.31$) were less inclined to think that the transgressor made the distribution intentionally than participants in the clear (deception) violation condition ($M = 6.00, SD = 0.31, p < .001$) and clear (no deception) violation condition ($M = 5.74, SD = 0.31, p < .001$).

Trust restoration. The results of Experiment 2.2 were very much in line with those of Experiment 2.1. A 3 (Violation type: ambiguous/clear deception/clear no deception) x 3 (compensation size) x 2 (trust) Repeated Measures ANOVA with the latter factor being a within-subject factor was conducted. The results of this ANOVA are presented in Table 2.3.

Table 2.3: Results of the Repeated Measures ANOVA for Experiment 2.2 with Trust as within-subjects dependent variable and Compensation Size and Violation Type as Independent between-subjects Variables.

Source	<i>df</i>	<i>F</i>	<i>Partial η^2</i>	<i>P</i>
<i>Within Subjects</i>				
Trust	1	494.26	.72	0.00
Trust \times Compensation Size	2	6.49	.06	0.00
Trust \times Violation Type	2	.88	.01	.42
Trust \times Compensation Size \times Violation Type	4	2.86	.06	.03
Error	192	(0.51)		
<i>Between Subjects</i>				
Compensation Size	2	1.24	.01	.29
Violation Type	2	3.37	.03	.04
Compensation Size \times Violation Type	4	1.34	.03	.26
Error	192	(1.05)		

Note: Values enclosed in parentheses represent mean square errors.

As in Experiment 2.1, the significant main effect for our repeated trust measure indicated that trust increased following a financial compensation, $F(1,192) = 494.26$, $p < .001$, $\eta^2 = .72$. Consistent with the results of Experiment 2.1 and the findings of Bottom et al. (2002), violated trust ($M = 3.11$, $SD = 0.06$) increased to some extent by providing a compensation ($M = 4.71$, $SD = 0.06$).

Closer examination (pairwise comparisons with Bonferroni adjustment) of this effect showed the provision of a compensation significantly increased trust in all nine experimental conditions.

In the same ANOVA, a significant two-way interaction effect between trust and compensation size revealed that the increase in trust depended on the size of the compensation, $F(2,192) = 6.49, p = .002, \eta^2 = .063$: larger compensations elicited more trust repair. Furthermore, the significant three-way interaction confirmed our interaction hypothesis by indicating that the interplay of violation type and compensation size did influence the degree to which violated trust increased, $F(4,192) = 2.86, p = .025, \eta^2 = .056$.

To examine this three-way interaction more closely, we compared the mean increases in trust for our nine conditions. These increases in trust are displayed in Table 2.4.

Table 2.4: Mean Increase in Trust (and Standard Deviations) as a Function of Violation Type and Financial Compensation Size for Experiment 2.2.

Violation Type	<i>Partial Compensation</i>	<i>Exact Compensation</i>	<i>Overcompensation</i>
Ambiguous	1.13 (0.21) a	1.45 (0.21) a	2.44(0.22) b
Clear no deception	1.23 (0.21) a	1.60 (0.22) a	1.55 (0.20) a
Clear deception	1.41 (0.22) a	1.87 (0.22) a	1.65 (0.22) a

Note: Higher ratings indicate higher levels of trust restoration (mean increase in trust on a 7-point Likert scale). Standard deviations are in parentheses. Means with different subscripts differ significantly from each other after post-hoc comparisons (with Bonferroni adjustment).

Results of the Post-Hoc comparisons (with Bonferroni adjustment for multiple comparisons) confirmed our findings from Experiment 2.1: for people in the ambiguous violation condition, receiving an overcompensation did increase trust significantly more than when only an exact compensation was provided, $t(192) = 3.27, p = .001$, whereas this was not the case when trust was violated by deception, $t(192) = 0.71, ns$. Furthermore these comparisons also revealed that in the clear (no deception) violation condition, just as in the clear (deception) condition, trust also did not increase more after an overcompensation than after an exact compensation, $t(192) = 0.19, ns$. This latter finding thus also provides support for our hypothesis that it is not the use of deception that makes an overcompensation not more effective than an exact compensation, but rather the clarity of intent.

2.3.3 Discussion

The results of Experiment 2.2 replicated the findings of Experiment 2.1, but now in a controlled laboratory setting. As expected, our results showed that the degree to which trust can be repaired by financial compensations depends on the interplay between violation type and the size of the compensation. When victims of a trust violation were clearly confronted with the transgressor's bad intentions (through deception or a clear statement of his intent to be unfair), an offer to overcompensate the victim did not have an additional positive effect on trust perceptions as compared to an exact compensation. When intentions were more ambiguous, that is when participants solely received the unfair share without the transgressor having lied about it or having stated his bad intent clearly, trust perceptions did increase more when a financial overcompensation was offered, relative to when an exact, or a partial compensation was offered.

Furthermore, the fact that no differences were observed between the two clear violation conditions (deception or no deception), provides evidence for the notion that it is not the use of deception that causes an overcompensation to (not) increase trust more than an exact compensation, but rather a difference in the ambiguity of bad intent.

2.4 EXPERIMENT 2.3

Although the results of Experiment 2.1 and 2.2 supported our hypotheses, we conducted a third study for several reasons. First of all, we wanted to provide more conclusive evidence for our assertion that it is the degree of intent clarity vs. intent ambiguity rather than the use of deception that moderates the effect of compensation size. Despite the inclusion of an additional clear violation condition without deception and a separate pilot study that measured the degree to which victims attributed intent for all three violation types, one could argue that the results of Experiment 2.2 only offer indirect support for this notion because the attribution of intent was not measured within the experiment itself and its influence on the observed effects can therefore not directly be proven. Therefore, in Experiment 2.3 we took a more rigorous approach and manipulated violation type as in Experiment 2.1 (2 levels, Clear-deception or Ambiguous), but now measured participants' attribution of intent directly within the experiment itself. As such, this setup allowed us to assess whether attributions of intent mediate the moderating effect of violation type on compensation size. More precisely, apart from the predicted interaction effect found in Experiment 2.1 and 2.2, we would also expect a main effect of violation type on intent attributions. Furthermore, we expect the violation type x compensation size interaction to be fully explained by an attribution x compensation size interaction.

Second, in Experiment 2.1 and 2.2 we measured trust by assessing trust at two points in time to evaluate relative increases in trust (before and after the compensation, as suggested by Dirks et al. (2009)). This measure yielded consistent results, but one might also wonder what the behavioral repercussions on victims might look like. Will victims still be willing to be vulnerable to the other's actions, or will they choose to protect themselves from the influence of the other? Therefore, in Experiment 2.3, we decided to measure participants' trust as behavior, and after a compensation was provided, gave victims the opportunity to either keep interacting with the transgressor, or to exit the interaction and to continue the task with another, unknown participant.

2.4.1 Method

Participants and design. 106 participants (62.3 % male, 37.7 % female) from a Dutch university were randomly assigned to one of the four experimental conditions of our 2 (Violation type: ambiguous or clear) x 2 (exact or over-compensation) between subjects design. Participants were on average 20 years old ($SD = 1.93$ years).

Procedure. The procedure and instructions were identical to those used in Experiment 2.2.

Violation manipulation. As in Experiment 2.2, participants engaged in the first round of a dictator game as recipients and in the clear (deception) violation condition, they received a message from the other player stating: "I received 10 chips to distribute, so I decided to give you 5". In the ambiguous violation condition, participants received a message stating that the other person decided to give five chips to them. Following this allocation, participants in both conditions received an overview of the allocations made.

Attribution of intent. After the violation but prior to receiving compensation, we assessed participants' attribution of intent to the transgressor's act. Participants answered on 7-point Likert scales to the following questions: "I think the current distribution is to be attributed to the other's intent" and "I think the current distribution of chips is more the result of the situation itself than of the person allocating the chips" (reverse scored). Both items were combined into a scale measuring the degree to which participants attributed bad intent ($r = .50, p < .001$).

Compensation manipulation. As in Experiment 2.2, participants were informed that the other player was given the opportunity to re-allocate the chips given to oneself and the other. After a while, participants received a message from the transgressor indicating that he/she had decided to give away a certain amount of chips. The compensation size manipulation was the same as in Experiment 2.2, this time only including the exact compensation condition (with the final payoff for both transgressor and participant being 10 chips) and the overcompensation condition (resulting payoff of 9 chips for the transgressor and 11 for the participant).

Assessment of exit behavior. Participants were informed that before the second round would start, they were given the opportunity to exit the interaction with the current interaction partner and choose to continue the experimental task with another participant in the lab (binary choice: yes/no).

2.4.2 Results

Manipulation checks. Participants responded on a 7-point Likert scale to what degree they felt that their interaction partner had deceived them. We conducted a 2 (violation type: ambiguous/clear) x 2 (compensation size) ANOVA

on the participants' score on this item. Results revealed a main effect for violation type, $F(1,102) = 36.08$, $p < .001$, $\eta^2 = .26$, indicating that participants in the ambiguous violation condition ($M = 3.81$, $SD = 0.23$) reported feeling significantly less deceived than participants in the clear violation condition ($M = 5.72$, $SD = 0.23$).

Attribution of Intent. A 2 x 2 ANOVA with violation type, compensation size and their interaction predicting scores on the attribution of intent scale only revealed a main effect of violation type, $F(1,102) = 9.76$, $p < .01$, $\eta^2 = .09$, indicating that participants in the ambiguous violation condition ($M = 3.63$, $SD = 0.19$) were less inclined to attribute bad intent to the act of the transgressor than participants in the clear violation condition ($M = 4.47$, $SD = 0.19$).

Exit behavior. A binary logistic regression analysis with violation type, compensation size and their interaction as the predictor variables and exit behavior as the dependent variable yielded as predicted a significant interaction effect, $B = 2.15$, $SE = .92$, Wald's $\chi^2(1, N = 106) = 5.53$, $p < .05$. The percentages of exit choices per condition are displayed in Table 2.5.

Table 2.5: Percentages of Exit Choices as a Function of Violation Type and Financial Compensation Size for Experiment 2.3.

Violation Type	<i>Exact Compensation</i>	<i>Overcompensation</i>
Ambiguous	0.71 (0.25) ab	1.21 (0.26) b
Clear deception	0.48 (0.24) a	1.82 (0.28) b

Note: Percentages with different subscripts per row differ significantly from each other following separate chi-square tests for each violation type.

To break down the interaction effect, chi-square tests on the variables compensation size and exit behavior were conducted separately for people in the ambiguous condition and for people in the clear condition. These results showed that victims in the ambiguous violation condition were less inclined to exit the interaction if the transgressor provided an overcompensation than when the transgressor provided an exact compensation, $\chi^2(1) = 6.63, p = .01$; Participants in the clear violation condition were as likely to exit if the transgressor provided an overcompensation as when the transgressor provided an exact compensation, $\chi^2(1) = 0.48, ns$.

Mediation analyses. As described above, whereas violation type had a main effect on intent attribution, the violation type x compensation size interaction significantly affected participants' exit behavior. To see whether the moderating effect of our violation manipulation on the effect of compensation size was due to the proposed mechanism of intent attribution, a series of regression models were estimated according to the method described by Baron & Kenny (1986).

As a first step, we assessed whether there was an effect of the interaction of violation type and compensation type on exit behavior (see above). We also assessed that there was a main effect of violation type on the attribution of intent (see above). As a last step, we needed to establish that the violation type x compensation type interaction on exit behavior was reduced when the intent attribution x compensation size interaction was entered in the regression, whereas this latter interaction should be significant. A logistic regression analysis with violation type, compensation size, intent attribution (centered) and their interactions predicting exit behavior indeed revealed a significant interaction of intent attribution and compensation size on exit behavior ($B = -1.22, SE = .54, \text{Wald's } \chi^2(1, N = 106) = 5.10, p < .05$). Moreover, this analysis showed that the

violation type x compensation size interaction completely disappeared ($B = 1.72$, $SE = 1.04$, Wald's $\chi^2(1, N = 106) = 2.73$, ns), indicating a full mediation.

2.4.3 Discussion

Experiment 2.3 replicated the results of Experiment 2.1 and 2.2, but now with a behavioral measure of trust: victims who received an overcompensation were less inclined to leave the interaction than victims who received an exact compensation, but only so when the violation was ambiguous. Furthermore, whereas Experiment 2.2 provided only indirect evidence for intent ambiguity being the underlying mechanism for our violation type manipulation of Experiment 2.1 and 2.2, the mediation analyses in Experiment 2.3 strengthened this assertion by showing that the moderated path of violation type is fully mediated by the attribution of intent.

2.5 EXPERIMENT 2.4

Experiments 2.1, 2.2 and 2.3 all consistently showed that while overcompensations can foster more trust than exact compensations when intent is ambiguous, when a violation is clearly intentional, overcompensations are not more effective than exact compensations. Experiment 2.4 was designed to further consolidate this mechanism by manipulating intent ambiguity directly, without any interference with deception.

Also, one could argue that the manipulation of compensation size that we used in Experiment 2.1, 2.2 and 2.3 was rather subtle. Indeed, receiving one extra coin over an equal distribution of 10 is not exactly a large overcompensation. As a consequence, it would be difficult to uphold that our findings can be generalized to situations in which larger overcompensations are provided. Therefore, in

Experiment 2.4, we increased the size of an overcompensation substantially so that participants in the overcompensation condition would receive double the amount of compensation awarded in the exact condition.

Furthermore, Experiment 2.1-2.4 all made use of the same framework, rooted in a dictator game. To see whether our findings could be generalized to other types of economic exchange relations, in Experiment 2.4, we employed a different paradigm, namely a trust game. The trust game, originally designed by Berg et al (1995), is a widely used experimental method that allows to measure trust as investment decisions in an economic exchange relation. The first agent in this game, Player 1 (trustor), receives a certain amount of money and can send any part of this endowment to the second agent, Player 2 (trustee). The amount that Player 2 receives is then multiplied, after which Player 2 can decide how much of this amount he sends back to Player 1. When Player 1 decides to trust Player 2 (and gives substantially), Player 2 can then decide to act trustworthy (giving a substantial amount back to Player 1) or to violate Player 1's trust (e.g. return little or nothing). This context thus also provides us with the interesting opportunity to look at how financial compensations affect trust as behavior (i.e. investment decisions).

2.5.1 Method

Participants and design. 98 university students (51% female, 49% male) were recruited by announcements on the campus. All participants volunteered to participate in a “decision-making experiment” that allowed them to earn money. Participants were randomly assigned to one of the four conditions of our 2 (Intent: ambiguous or clear) x 2 (compensation size: exact or over-compensation) between subjects design. Participants were on average 20 years old ($SD = 2.11$ years).

Procedure. Upon arrival in the laboratory, participants were seated in separate cubicles and told that all instructions were given via the computer. Participants were not able to see or hear each other during the entire experiment.

Trust game. Instructions informed the participants that they would play multiple rounds of an interaction task with another person. All participants were assigned to the role of Player 1 and interacted with a fictitious Player 2. Participants were endowed with 10 chips and were told that the more chips they earned, the more chance they would have in winning a lottery prize of 20 Euros.

Participants were given two options in round 1. They could either decide to give all of the 10 chips to Player 2 (trust) or they could choose to give no money to the counterpart (no trust). To create an incentive for participants to trust in the first round, participants were also told that if they chose the latter option, they could only keep half of their original endowment (5 instead of 10 chips). When a participant decided not to invest, the experiment ended, and he/she was debriefed (7 participants). When participants chose to invest (92 participants), they were informed that the amount had been doubled and were asked to wait a few moments, while Player 2 made his/her decision.

Violation manipulation. After some time, participants were notified of the possibility that Player 2 did not receive the same information as them in round 1. They were told that there was a possibility that Player 2 was not aware of the fact that the amount sent had been doubled. It was said that therefore it was possible that in round 1, Player 2 thought he/she only had 10 chips instead of 20 at his disposal when deciding to make the allocation. Participants were also told that it was equally possible that Player 2 did know he/she had 20 chips to distribute.

After this, participants in the clear intent condition received a message from Player 2 stating “I received 20 chips and decided to give you 5.” This message thus implicated that the other knew he/she had 20 chips to distribute. Participants in the ambiguous intent condition received a message solely

indicating that for that round, the other person had decided to give 5 chips to them. In this condition, it was hence unclear whether Player 2 knew he/she had 20 chips.

Financial compensation manipulation. After some time, as in the previous experiments, participants were informed that the other player was given the opportunity to re-allocate the chips given to oneself or the other. Participants subsequently received a message from Player 2 indicating that he/she had decided to give away a certain amount of chips. The size of this compensation was manipulated over two levels, creating an exact compensation condition in which victims received 5 extra chips, resulting in a 10-10 distribution and a large overcompensation condition in which the transgressor provided 10 extra chips, creating a final distribution of 5 chips for the transgressor and 15 for the participant..

Assessment of trust (behavior). The dependent measure of interest was victims' subsequent behavior in a second round of the trust game. For this purpose, participants were again endowed with 10 chips and told that for round 2, they could choose to give any amount between 0 and 10 chips to the other player.

2.5.2 Results

Manipulation checks. To verify whether our intent manipulation was successful, participants answered on a 7-point Likert scale to what degree they thought the other made the distribution intentionally. A 2 (Intent: ambiguous/clear) x 2 (compensation size: exact vs. overcompensation) ANOVA on the participants' score on this item revealed a main effect for intent ambiguity, $F(1,88) = 4.72$, $p < .05$, $\eta^2 = .05$, indicating that participants in the clear intent condition ($M = 4.78$, $SD = 0.21$) were more inclined to think that the other made the distribution

intentionally, than participants in the ambiguous intent condition ($M = 4.15$, $SD = 0.21$).

Trust behavior. A 2 (intent ambiguity) x 2 (compensation size) between subjects ANOVA on the amount of chips participants were willing to give in the second round of the trust game, revealed a main effect of intent ambiguity, $F(1,88) = 8.08$, $p < .01$, $\eta^2 = .08$. This main effect was however qualified by our predicted significant interaction effect, $F(1,88) = 4.33$, $p < .05$, $\eta^2 = .05$. The means are displayed in table 2.6.

Table 2.6: Mean Trust Game Allocations (and Standard Deviations) of Victims towards Transgressors as a Function of Intent Ambiguity and Compensation Size for Experiment 2.4.

Violation Type	<i>Exact Compensation</i>	<i>Overcompensation</i>
Ambiguous	4.83 (0.74) a	7.61 (0.74) b
Clear	4.26 (0.74) a	3.96 (0.74) a

Note: Standard deviations are in parentheses. Means with different subscripts differ significantly from each other (Post-hoc comparisons with Bonferroni adjustment).

Post-hoc tests with Bonferroni adjustment revealed that whereas victims in the ambiguous intent condition were inclined to give more to a transgressor who provided an overcompensation than to a transgressor who gave an exact compensation, $t(88) = 2.65$, $p < .01$, victims in the clear intent condition did not give more to a transgressor who overcompensated than to a transgressor who provided an exact compensation, $t(88) = 0.29$, *ns*.

2.5.3 Discussion

The results of Experiment 2.4 confirmed our previous findings, but now in a different setting and using a stronger manipulation of compensation size. In the context of a trust game paradigm, we observed that victims trusted a transgressor more (by allocating more resources) when this transgressor provided a large overcompensation than when he/she provided an exact compensation, but only so when there was ambiguity about the transgression being intentional.

2.6 GENERAL DISCUSSION

Taken together, the present findings provide support to the idea that when trust is violated by distributive harm in exchange relations, the size of a financial compensation can influence the degree to which victims are willing to trust again. Specifically, across four studies, we found evidence that whether larger financial compensations will foster more trust, depends on how trust was violated in the first place, and more importantly, how victims attributed intent to the violation. Below we will discuss the most important theoretical and practical implications.

The most important finding lies in the observed interaction between compensation size and violation type. We reasoned that as trust in economic exchange relations is driven mainly by outcomes (calculative trust, Lewicki et al., 2005) one could expect that larger financial compensation foster more trust. However, drawing upon insights from the restorative justice literature that favorability of outcomes matters more when the intentions of the transgressor are not clear (Darley & Pittman, 2003), and building on the notion that information about intentions are of crucial diagnostic value for trustors to base their decision to trust on (e.g. Rousseau et al., 1998), we predicted that financial

overcompensations can indeed foster more trust, but not if bad intent became clear throughout the violation. Our findings were indeed in line with these predictions. That is, across four experiments and using different paradigms and measures of trust, we found that overcompensations only restore trust more when the transgression did not explicitly reveal the transgressor's intent.

The present findings contribute to the growing literature on trust repair in several ways. A first contribution is that we focused our attention on a trust repair tool that has received very little empirical attention by trust repair scholars, that is, financial compensations. Our results reveal that in the context of economic exchange relations, providing a financial compensation in response to distributive harm, can also contribute to the process of trust repair. Furthermore, our findings also fit within previous insights in the trust repair literature showing that goodwill operations by the transgressor, such as apologies or promises, are less effective when they follow a transgression that clearly displayed the transgressor's bad intent (Kim et al. 2004, 2006; Schweitzer et al. 2006). We demonstrated that a similar logic applies to the effectiveness of compensating a victim in response to distributive harm: victims will use the favorability of the compensation (i.e. compensation size) in their decision to trust, but only so only when bad intent is less clear.

A second contribution is that we investigated trust repair in a setting that has not received much empirical attention yet, that is, economic exchange relations. In these relations, actors' welfare depends on the decisions taken by others. The presence of this interdependence subsequently creates strong concerns for issues such as trust and fear of exploitation (Rusbult & Van Lange, 1996). This context therefore provides an excellent setting not only for examining the effects of distributive harm and subsequent financial compensation, but also for the study of violation and restoration of trust in general.

In conclusion, as noted by Dirks et al. (2009), for the purpose of developing a comprehensive and unified conceptual foundation for the study of relationship repair, it is important to consider antecedents and mechanisms of trust repair at different levels of analysis. As the specific nature of relations can differ (i.e. is the relation purely economic, transactional, or more social, relational?), so can the efficiency of a certain repair mechanism vary along these forms. By showing how financial compensations can help repairing trust in an economic exchange context between individuals, we believe to have taken some important first steps in the study of financial compensations as a means to restore trust in particular and to the literature on trust repair in general.

2.6.1 Limitations and suggestions for future research

A first potential limitation is that our focus was on a one-time encounter trust violation and restoration attempt. Although in our experiments, to induce the sense of interdependence, we let participants believe that they would interact over multiple rounds, in reality they did not play more than one round. This may limit our findings in the sense that we did not study how the type of violation and the size of a financial compensation will affect how trust evolves over subsequent encounters in iterated interactions. Interestingly enough, however, prior research has repeatedly shown that first impressions can persevere in iterated interactions (Tetlock, 1983; Rabin & Schrag, 1999; Schweitzer et al. 2006), and that an early breach in trust can go a long way (Lount, Zhong, Sivanathan, & Murnighan, 2008). These findings thus stress the relevance of looking at how violated trust in these very first moments can be effectively restored again, and by which means this can(not) be achieved.

A second potential limitation is that we only focused on a repair tactic that directly addresses instrumental outcome related concerns (financial compensations), and not on less tangible yet more relation-oriented efforts, such as apologies. Although we departed from a typical economic exchange framework, in which particularly outcome related concerns are salient, research has suggested that even in these exchange settings like negotiations or public good dilemmas, not only instrumental, financial motives are of value, but also relational concerns should be taken into account (Curhan, Elfenbein, & Xu, 2006; De Cremer, 2002). Interestingly, the same idea can also be found in the justice literature, where it has been argued that people not only care about the outcomes they receive, but also about the way these outcomes are achieved and the way in which they feel respected (Lind & Tyler, 1988; Thibaut & Walker, 1975).

Although discussing the explicit nature of the relationship between trust and justice is beyond the scope of the present paper, it is nevertheless important to note that in the exchange settings we used, different types of justice may play a role in the trust repair process. As we noted earlier, in economic exchange relations, a trust violation often involves distributive harm and therefore we directed our focus on how dynamics of distributive justice (i.e. financial compensations) influence trust repair. In these settings, however, procedural and interactional justice concerns can be affected as well, as unequal allocations may also signal disrespect and little care about the procedures used to allocate valuable resources. This leaves the question whether these concerns should not also be addressed.

One way procedural or interactional justice concerns can be addressed when trust is violated, is by offering an apology. As apologies can speak to both procedural and interactional justice concerns through the expression of respect and the explicit admission that a rule of conduct is violated (De Cremer & Schouten, 2008; Okimoto & Tyler, 2007), researchers have argued that addressing not only

distributive justice concerns, but also these other justice concerns, might result in favorable reactions towards transgressors (Darley & Pittman, 2003; Okimoto & Tyler, 2007). Therefore, an interesting challenge for future research lies in examining the impact of addressing different justice concerns - in combination or separately - on trust restoration.

Finally, another interesting avenue for future research on restoration processes in exchange relations is to investigate what level of overcompensation is most effective in restoring trust. Whereas in our studies we showed that both small (Experiment 2.1-2.3) and large (Experiment 2.4) overcompensations have the potential of restoring trust more than an exact compensation, it remains unclear whether or not larger overcompensations are more effective than smaller ones. On the one hand, a more outcome-based perspective would suggest that because outcomes serve as a reference for trustworthiness in exchange relations, a large overcompensation might foster more trust than a small overcompensation. On the other hand, however, if the effectiveness of overcompensation is due to the more symbolic message it communicates that the transgressor is willing to walk the extra mile, one would not immediately expect larger overcompensations to foster more trust than small overcompensations. Therefore, future research would do well to investigate in greater detail whether the level of overcompensation also matters to victims in the process of repairing trust.

2.6.2 Conclusion

Taken together, the present findings show that the size of financial compensations can prove to be an important factor determining the degree to which trust can be restored. Moreover, we established that the attribution of intent plays a crucial role for the effect of compensation size: overcompensations only

restored trust more to the extent that the victim attributed less bad intent to the transgression. So, it appears more to be the case that eventually, when trusting again, victims attach more value to information about intentions, than to the favorability of the final outcome. When a transgressor's intentions are ambiguous, victims will base their trust on the size of the compensation they receive, whereas when bad intent of the transgressor clearly surfaces throughout the violation, the favorability of the compensation matters less. In light of this view, our findings thus also seem to substantiate the broader idea that detecting intentions and modeling our behavior accordingly, constitute a fundamental and guiding principle throughout our interactions with others, a view that already has been held for a longer time by game theorists and, more recently, by neuroscientists as well (Sanfey, 2007; Gallagher & Frith, 2003). To conclude, we hope that the present research will motivate future researchers to focus on how trust violations occur and how they can be effectively dealt with. After all, if no trust is available or only distrust is present, no type of social or economic encounter will be viable in the long-term.

CHAPTER 3

3. SIZE MATTERS PART 2: WHEN INTENTIONS DETERMINE VALUE³

3.1 INTRODUCTION

Trust is a helpful lubricant in many of our social interactions. One type of relations in which trust plays a pivotal role are economic exchange relations, relations characterized by resource-based dependencies where people have to decide how to allocate tangible, financial resources (Granovetter, 1985, Uzzi, 1996, 1997). In these relations, trust not only helps us overcome the fear of exploitation and stimulates us to engage in interactions in the first place, but it also encourages us to be more benevolent and cooperative towards our interaction partners (Parks, Henager, & Scamahorn, 1996; De Cremer et al., 2001). Despite all the benefits that the presence of trust may foster in economic exchange relations, reality has taught us that actors in these relations often jeopardize another's trust by violating moral standards and treating the other party unfairly (Boles, Croson & Murnighan, 2000; O'connor and Carnevale, 1997; Robinson & Rousseau, 1994).

Given the fact that economic exchange relations are not immune to the negative impact on trust that such violations of fairness norms can bring forth (Bies & Tripp, 1996; Jones & George, 1998; Lount et al., 2008), an important challenge for economic exchange relations today lies in dealing effectively with fairness violations and in unraveling how violated trust can be restored. Although some research has examined how apologies or other verbal offender accounts like promises or denials can facilitate the restoration of trust in general (Kim et al., 2004; Tomlinson et al., 2004; Schweitzer et al., 2006), empirical work has only

³ This chapter is based on Desmet, De Cremer & Van Dijk (2011b)

recently begun to investigate how in economic exchange relations, where a trust violation often entails a financial loss, the provision of financial compensations may have a positive influence in the process of repairing trust and cooperation. (Bottom et al., 2002; Desmet et al., 2011; De Cremer, 2010).

Outcome-based models of game theory and narrow calculus-based views on trust would predict that as outcomes are of primary concern for actors in economic exchange relations, the provision of a substantial financial compensation would indeed be a sufficient restorative tactic in response to distributive harm (Lewicki & Bunker, 1995; Lewicki et al., 2005; Bolton & Ockenfels, 2000; Fehr & Schmidt, 1999). Moreover, these views would also suggest that the more resources victims receive as compensation, the more they will be willing to trust and cooperate again. However, if we look at research conducted so far within the realm of economic exchange relations, it appears that all studies have a common focus on reparations that are voluntarily initiated by the transgressor. In the course of real-life violations, however, voluntary acts of repair appear to be an exception rather than a rule, as actors in economic exchange relations often let a third party decide whether and what reparation is appropriate (cf. tort litigation).

As the way in which people take action signals important information about their motives and intentions, it remains to be seen whether restorative attempts will exert the same positive effects when the transgressor did not voluntarily initiate them and had to be ordered to by a third party (Goranson & Berkowitz, 1966; Greenberg & Frisch, 1972). In the present research, we examined in the context of a trust game how victims are willing to trust again following the provision of a financial compensation. In this setting, we investigated whether victims will be sensitive to the size of the compensation in their decision to trust again and develop the argument that larger compensations will only foster more trust if they are provided voluntarily rather than following coercion by a third party.

3.1.1 Repairing Trust with Financial Compensations

Despite the widespread use of compensations in response to distributive harm, not many studies have investigated their effect on cooperation and trust. Therefore, to assess what factors may influence the efficiency of financial compensations in economic exchange relations, it is useful to first elaborate on what has been argued to drive trust in these economic exchange relations.

Trust scholars agree that trust can be shaped by different concerns depending on the type of relation it functions in (Rousseau et al., 1998; Sheppard & Sherman, 1998; Lewicki et al., 1998; Dirks et al., 2009). In economic exchange relations, where interactions take place primarily through giving and receiving economic goods, trust scholars have argued that trust is more a market-oriented, economic calculation. Specifically, rather than being driven by an identification with the other's desires and motives, actors in these relations base their trust on the expectancy of receiving a specific, tangible benefit (Lewicki & Bunker, 1995; Lewicki et al., 2005). According to this calculus-based view on trust in exchange relations, people will particularly look at the favorability of the outcomes they receive when deriving one's intentions and trustworthiness.

Given this primary concern with outcomes in exchange relations, scholars have speculated that the provision of a financial compensation in response to distributive harm might be an important and effective step in the process of restoring trust in economic exchange relations (Lewicki et al., 2005; Ren & Gray, 2009). Bottom et al. (2002) provided empirical support for this assertion: focusing on cooperation in a dyadic multiple round prisoner's dilemma, these authors observed that after a breach by the other party, cooperation could be re-established to some extent when the transgressor offered substantive financial compensation.

Interestingly, these authors also investigated whether the size of the compensation was relevant to this process, and concluded that this had no effect: small offers of compensation were as effective as larger ones.

Important to note, however, is that both the small and large compensations that Bottom et al. (2002) employed, failed to cover the economic loss for the victim. Given that violations in economic exchange relations usually result in a clear financial loss for the victim, and given that outcomes are of great importance to actors in economic exchange relations (Lewicki et al. 2005), it is plausible that the size of this loss will be a crucial anchor point for victims when they evaluate a financial compensation. From a distributive justice perspective, one would indeed expect that victims of distributive harm will be concerned with the degree to which a compensation re-establishes fair outcomes (e.g. Greenberg, 1982; Messick, 1993; Rabin, 1998). Therefore, a compensation that exactly restores a victim's monetary loss or creates equal outcomes again would seem a minimum necessity for restoring trust and cooperation.

Although the provision of a compensation that generates equal or equitable outcomes may seem a sufficient response to distributive harm from a distributive justice point of view, trust scholars have suggested that the process of restoring trust may require more effort than what is needed to build trust initially (Kim et al., 2004). The act of restoring trust may therefore ask for more from a transgressor than simply restoring the unfair outcome distribution to the equal distribution that a victim already expected to get in the first place. Given the above mentioned importance of outcomes for trust in exchange relations, one way this might be achieved, is for the transgressor to provide a compensation that *overcompensates* for the harm done and signals a financial self-sacrifice for the transgressor.

As prior research has already documented that financial self-sacrifice can foster more cooperation (De Cremer & Van Knippenberg, 2002, 2004), recent

findings in exchange relations have indicated that victims react more favorable to restorative attempts when they are costly for the transgressor (Ohtsubo & Watanabe, 2009). In the context of a dictator game, Ohtsubo and Watanabe (2009) observed that when victims received an apology from a transgressor who previously behaved in an unfair manner, they were sensitive to the degree to which this apology incurred a financial loss for the transgressor: victims reacted more positively to costly apologies than to less costly apologies.

Insights from the literature on consumer behavior also suggest that larger compensations may be more effective than smaller ones. In studying victim's responses to service failures, several authors observed that overcompensation of the harm done resulted in more consumer satisfaction than exact or partial compensation (Boshoff, 1997; Webster & Sundaram, 1998; Davidow, 2003; Gilly & Hansen, 1985). Moreover, recent findings in the context of economic exchange relations have shown that the size of a compensation can also have an influence on the degree to which a victim's trust is restored and to what degree victims are willing to continue interacting with the transgressor. Desmet et al. (2011a) not only observed that a compensation that restores equality can increase trust, but also that an overcompensation that creates unequal outcomes in favor of the victim can increase victims' trust towards a transgressor even more.

3.1.2 Voluntariness and the importance of intentions for trust

In light of the empirical evidence above, one would expect victims of distributive harm in economic exchange relations to be sensitive to the size of a compensation. The more resources they receive as compensation, the more they are willing to trust again. This suggests that victims mainly care about the outcomes they receive and that trust in these relations can be regarded as an

economic good of which more can be bought when more compensation is provided. As such, this notion seems consistent with outcome-based models in behavioral game theory, which posit that actors in economic exchange relations base their decisions solely on the favorability of the outcomes they receive (e.g. Bolton & Ockenfels, 2000; Fehr & Schmidt, 1999).

However, although scholars agree that outcomes are of great importance to actors in economic exchange relations, recent economic theories have departed from the stilted view that outcomes alone are the primary driver of behavior in economic exchange relations. As attribution theory already demonstrated that intentional acts are more likely to be attributed to the person performing them than acts that this person did not intend to make (Heider, 1958; Jones & Davis, 1965), early findings in social psychology have shown that helping behavior is more likely to be reciprocated when performed voluntarily rather than forced (Goranson & Berkowitz, 1966; Greenberg & Frisch, 1972). Building on these insights, newer models of economic behavior in exchange relations have now postulated that it is not the outcomes themselves, but rather what these outcomes communicate about the intentions of the interaction partner that guides people's behavior in these relations (Rabin, 1993; McCabe et al., 2003; Falk & Fischbacher, 2006). McCabe and colleagues (2003) for example observed in a trust game that when players were confronted with cooperative behavior on behalf of the other player, they were more inclined to cooperate themselves when this behavior was performed voluntarily (i.e., the other also had the choice to defect, but chose to cooperate) rather than involuntarily (i.e., the other had no other option than a cooperative one).

According to these models, actors in exchange relations will thus indeed base their decision to cooperate on the favorability of the outcomes they receive, provided that these outcomes are indicative of the other's intentions: when an actor involuntarily exhibits cooperative behavior towards another agent, this agent

will be less inclined to cooperate than when this act was initiated voluntarily. These findings would suggest that the effectiveness of financial compensations may depend on whether the compensation is provided voluntarily or not. When a transgressor voluntarily compensates a victim, the compensation and its size can be an indicator of the degree to which the transgressor has benign intentions towards the victim, whereas when a transgressor did not show the intent to compensate him/herself but was forced by third party to do so, the size of the compensation is not necessarily a sign of the transgressor's benevolence and good intentions. Therefore, receiving a large compensation that was imposed may not make a transgressor seem trustworthier than a forced small compensation.

Interestingly, inferences about the intentions of another are also considered to be a core element in the formation of trust according to most definitions (Boon & Holmes, 1991; Mayer et al., 1995; Deutsch, 1960; Mellinger, 1956). One of the most commonly accepted definitions, for example, conceptualizes trust as "a willingness to accept vulnerability based upon positive expectations of the intentions or behavior of another" (Rousseau et al., 1998). This definition of trust, would thus imply that people will particularly use the behavior of the other to base their decision to trust on, when this behavior provides an indication for the other's intentions. As a result of this, trust scholars have argued that reparations may be more effective when introduced voluntarily rather than imposed externally (Nakayachi & Watabe, 2005; Gillespie & Dietz, 2009). Extending this view to the use of financial compensations and the notion of calculus based trust in economic exchange relations, we would then expect that victims will particularly base their trust on the size of the outcomes they receive when these outcomes are indicative of the transgressor's intentions (i.e. provided voluntarily).

3.2 EXPERIMENT 3.1

We tested our ideas in the context of a trust game. The trust game is a widely used method to assess trust as cooperative behavior between two agents in an economic exchange relation (for a first description, see Berg et al., 1995). The first agent in this game, Player 1 (*trustor*), receives a certain amount of money and can send any part of this endowment to the second agent, Player 2 (*trustee*). The amount that Player 2 receives is then tripled, and Player 2 can subsequently decide how much of this tripled amount he sends back to Player 1. When Player 1 decides to trust Player 2 (and gives substantially), Player 2 can then decide to act trustworthy (giving a substantial amount back to Player 1) or to violate Player 1's trust (return little or nothing).

In our experiment, participants were assigned to the role of Player 1 and were confronted with a (preprogrammed) trustee who responded to their investment in an untrustworthy manner (i.e., returned nothing; for a first description of this paradigm, see Desmet, De Cremer & Van Dijk, 2011c). Following this violation of trust, a compensation was provided either voluntarily by the transgressor, or following an intervention by a third party that ordered the transgressor to pay compensation to the victim. We chose to manipulate this third party compensation enforcement as a one time intervention (without guarantee of interventions in future rounds), because this allowed us to study its effects on cooperation that is driven by *trust*, and not by the simple calculation that the transgressor will cooperate because otherwise he/she will be sanctioned again.

The size of the compensation provided was manipulated over three levels, creating a condition in which victims received a small compensation that still generated unequal outcomes (return of their investment, but no compensation for the profit that their investment had created), a condition in which they received an

equalizing compensation (return of their investment *and* equal share of the generated profit) and a condition in which victims were awarded a large compensation that resulted in an unequal distribution in favor of the victim (return of the investment and all of the associated profits).

3.2.1 Method

Participants and experimental design. 146 university students (47.3 % male, 52.7 % female) volunteered to participate in a decision-making experiment that allowed them to earn money. Participants were on average 21 years old ($SD = 2.12$ years) and were randomly assigned to one of the six conditions of our 2 (voluntariness: voluntary vs. forced) x 3 (compensation size: small compensation, equal compensation or overcompensation) between subjects design.

Experimental Procedure. Upon arrival at the laboratory, participants were welcomed and seated in separate cubicles containing a computer. Participants were not able to see or hear each other during the entire experiment and all instructions were given via the computer.

Trust game and trust violation. Instructions informed the participants that they would perform multiple rounds of an interaction task with another participant, located in another cubicle. They were told that for this task, they would each round receive 10 coins. Participants were informed that the more coins they earned, the more chance they would have in winning a lottery prize of 20 Euros.

All participants were assigned to the role of Player 1 and interacted with preprogrammed Player 2. Participants were given two options in round 1. They could either decide to give all of the 10 coins to Player 2 (trust) or they could choose to give no money to the counterpart (no trust). Participants were informed

that if they decided to transfer their endowment to the other, the amount would be tripled, after which the other had to decide how much of these 30 coins he or she would give back. To create an incentive for participants to trust in the first round, participants were also told that if they chose the latter option, they could only keep half of their original endowment (5 instead of 10 coins). When a participant decided not to invest, the experiment ended, and he/she was debriefed (16 participants). When participants chose to invest (130 participants), they were informed that the amount had been tripled and were asked to wait a few moments, while the other participant made his/her decision.

After some time, participants were shown a message that for that round, the other person had decided to return no coins to the participant.

Compensation manipulation. After they responded to some questions concerning the other's decision, participants in the voluntary condition were informed that since this was the first round, an overview of the allocations was presented to the other, along with a one-time possibility to re-evaluate the distribution and give extra coins to the participant. After a short delay, participants received a message indicating that the other had decided to give them 10 (small compensation), 15 (equal compensation) or 20 coins (overcompensation) depending on the condition they were in.

Participants in the forced condition were informed that since this was the first round, an overview of the allocations was presented to another participant in the session, and that this person was given a one-time possibility to evaluate the distribution and intervene by forcing the other to give extra coins to them. After a short delay, participants received a message indicating that this third person had decided to redistribute the coins between them and the other. In this message, they learned that the third person had decided that they receive 10 (small compensation), 15 (equal compensation) or 20 coins (overcompensation) from the other, depending on the condition they were in.

Assessment of trust behavior. Trust was measured as behavior, by letting the participants play a second round of the trust game. For this purpose, participants were again endowed with 10 coins. In contrast to round 1, in which they could only decide whether to invest or not, we created a continuous measure of trust for round 2, by letting the participants choose how many coins they would be willing to give to the other, and how many they would keep for themselves. They were also informed that any amount they decided not to transfer, would be theirs to keep.

3.2.2 Results

Manipulation checks. To verify whether our manipulation of voluntariness was successful, we asked participants on 7-point Likert scales to what degree they thought the other person provided the compensation voluntarily and to what degree the other had been forced to provide a compensation (reverse scored). Scores on these items were combined in a scale ($r = .48, p < .001$). This scale was entered as a dependent variable in a 2 x 3 ANOVA with voluntariness, compensation size and their interaction as predictors. This analysis only revealed a main effect for voluntariness, $F(1,124) = 45.62, p < .001, \eta^2 = .27$, indicating that participants in the voluntary condition ($M = 4.33, SD = 0.19$) perceived the compensation as more voluntary (and less forced) than participants in the forced condition ($M = 2.52, SD = 0.19$).

Trust Behavior. A 2 x 3 ANOVA with voluntariness, compensation size and their interaction predicting trust behavior, revealed a main effect for compensation size, $F(2,124) = 4.60, p < .05, \eta^2 = .07$. Closer examination of this effect (post hoc comparisons with Bonferroni adjustment for multiple comparisons) showed that victims who received an overcompensation ($M = 6.36, SD = 0.54$) gave more to the transgressor than victims who received a small

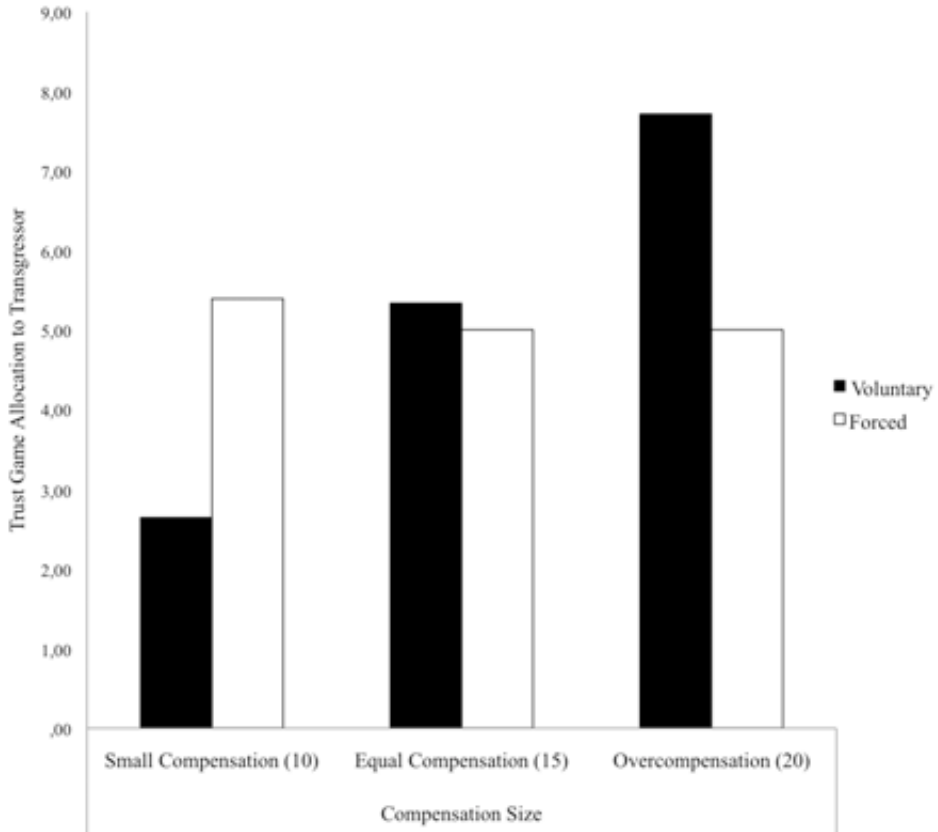
compensation ($M = 4.02$, $SD = 0.55$, $p < .05$). However, this main effect was qualified by the significant predicted interaction effect, $F(2,124) = 6.74$, $p < .05$, $\eta^2 = .10$. To test our hypothesis that compensation size would only matter when the compensation was provided voluntarily, we conducted planned comparisons with Bonferroni adjustment for multiple comparisons. The mean allocations are displayed in Table 3.1 and in Figure 3.1.

Table 3.1: Mean Trust Game Allocations (and Standard Deviations) of Victims towards Transgressors as a Function of Voluntariness and Compensation Size for Experiment 3.1.

	<i>Small Compensation</i>	<i>Equal Compensation</i>	<i>Overcompensation</i>
Voluntary	2.65 (0.80) a	5.33 (0.78) b	7.71 (0.78) c
Forced	5.39 (0.74) b	5.00 (0.74) b	5.00 (0.76) b

Note: Standard deviations are in parentheses. Means with different subscripts differ significantly from each other after post-hoc comparisons (with Bonferroni adjustment for multiple comparisons).

Figure 1. Mean Allocation in second Round of Trust Game as a Function of Voluntariness and Compensation Size for Experiment 3.1.



3.3 GENERAL DISCUSSION

As predicted, our findings show that whether larger compensations foster more trust depends on whether these compensations are provided voluntarily or not. When offered voluntarily, compensations that overcompensate the harm done lead to more trust than small compensations or compensations that create equal outcomes. In contrast, when the transgressor was forced by a third party to provide

compensation, victims' trust was not affected by the size of this compensation. Our findings contribute to the literature on trust repair in a number of ways. Below, we discuss the most important contributions.

A first contribution is that we focused on a trust repair tactic that is quite prevalent in economic exchange relations, although understudied by researchers. Scholars in the field of trust repair so far mainly looked at the effectiveness of verbal accounts in restoring trust (Kim et al., 2004; Tomlinson et al., 2004; Schweitzer et al., 2006). It is only recently that studies have shown that in the context of economic exchange relations, the provision of financial compensations following distributive harm can too exert a positive influence in re-establishing trust and cooperation (Bottom et al., 2002, Desmet et al., 2011a). Furthermore, findings so far were mixed as to whether the size of the compensation contributes to its effectiveness (Bottom et al., 2002, Desmet et al., 2011a). By showing that voluntary overcompensation can lead to more trust than compensations that create equal outcomes or than small compensations, we believe to have found more conclusive evidence that larger compensations can indeed foster more trust than small compensations, provided that they are indicative of the transgressor's intent (i.e., introduced voluntarily) and at least cover the victim's loss.

A second contribution is that we studied how the voluntariness with which a compensation is provided, affects trust. While trust scholars already speculated about the possible influence of whether reparations are undertaken voluntarily by the transgressor, or following coercion (Nakayachi & Watabe, 2005; Gillespie & Dietz, 2009), up till now, research only focused on voluntary reparations and empirical studies examining the effects of this voluntariness were lacking. Because in real-life, agents in economic exchange relations often turn to a third party to decide whether and what reparation is appropriate (cf. tort litigation), we deemed it necessary to investigate the effects of this third party intervention on victim's willingness to trust and cooperate again with the transgressor. We found that this

intervention indeed affects victims' behavior towards a transgressor in the sense that it influences how the size impacts their trust: when provided voluntarily, overcompensation of the harm can lead to more trust than when this compensation is imposed by a third party. Interestingly, the reverse was true for small compensations: when transgressors voluntarily decided to not let the victim share in the generated profit and provided compensation that only covered the victim's loss, they were trusted less than when a third party imposed this small compensation.

Finally, our findings also contribute to theory development of economic behavior in exchange relations. Whereas prior models assumed that behavior in these relations was merely driven by outcome-related concerns (Bolton & Ockenfels, 2000; Fehr & Schmidt, 1999), recent models have postulated that it is not the outcomes per se, but rather what these outcomes communicate about the interaction partner's intentions that guide people's behavior (Rabin, 1993; McCabe et al., 2003; Falk & Fischbacher, 2006). As we showed that victims' behavior in these relations is only guided by the favorability of the compensation they receive when these compensations reflect the other's intent (i.e. provided voluntarily), our findings also lend further support for intention-based models of economic exchange behavior. Despite these contributions of our findings, we also need to point out some limitations to our work

3.3.1 Limitations and suggestions for future research

A first potential limitation lies in the fact that although we measured trust as behavior, we did not include measures that tap into the attributional process that victims who receive a financial compensation make. Although we predicted and found that victims would only be sensitive to the size of a compensation when this

compensation could be attributed to the transgressor's intention, an interesting question remains in how victims who receive a forced compensation perceive the transgressor. Our data showed that victims in that condition displayed surprisingly high levels of trusting behavior towards the transgressor (they transferred half of their endowment on average), making that victims who received a small compensation were prepared to give more to a transgressor when this transgressor was forced to compensate than when he/she voluntarily provided this compensation. This seems to suggest that victims who receive a forced compensation assume that the transgressor has good intentions, but due to a lack of process data, we cannot be sure that this is actually the case.

One possible explanation for this finding is that the third party intervention installed some sort of trust in the system, based on the assumption that future violations would again be corrected by this third party. However, this explanation is unlikely to explain our findings as this would also predict that stronger sanctions (i.e. the transgressor is forced to pay more compensation to the victim) would yield more trust that a transgressor will cooperate in the future than small sanctions. Furthermore, this explanation seems even more unlikely given the fact that we explicitly modeled the third party intervention as a one-time action, with no guarantee that this third party would be able to intervene in future rounds. However, although victims who received a forced compensation were told that there was no guarantee that this third-party could *intervene* in future rounds, participants in these conditions may have been under the impression that their allocations would be *monitored* and that therefore their allocations were not necessarily private. This feeling of being monitored, and their allocations being rather public than private, may in turn have instigated participants to conform to more rule-based behavior, such as adhering to the fairness rule of equality as a decision heuristic (Reis & Gruzen, 1976; Kramer et al., 1993; Messick, 1993; Stouten et al., 2005). As only participants in the forced conditions were aware of

this possible monitoring, this might clarify why participants who received a forced compensation on average transferred half of their endowment to the other in round 2, and why a forced small compensation yielded more cooperation than a small voluntary compensation. As allocations in the forced condition would then however not necessarily reflect trust, but rather a more normative adherence to a distribution rule, an important avenue for future research would be to contrast this behavioral measure with self-reported measures of trust perceptions, in order to distill to what extent participants in the forced condition actually attribute good intent to the transgressor.

Finally, another limitation is that we studied trust violations and the effects of financial compensations at an early stage of an economic exchange relation. As the transgression in our study happened in the first round and was quickly responded to with a compensation (at least in the case of a voluntary compensation), one might wonder whether there actually is trust that can be violated and whether it is then indeed trust recovery that we study and not the building up of initial trust. Prior research has however shown that even in first interactions with strangers, people display surprisingly high levels of initial trust, a fact which is also witnessed by the high number of participants in our sample who chose trust in the first round (Berg et al., 1995; Kramer, 1994; Meyerson et al., 1996; McKnight, Cummings & Chervany, 1998). Given these high levels of initial trust, it is reasonable to argue that this initial trust will also decrease when a transgressor does not honor this trust and decides to make an unfair allocation. As a matter of fact, research that used a similar paradigm to study trust repair in exchange relations (with a transgression in the first round, followed by compensation) demonstrated not only that initial trust indeed decreases following a violation, but also that this violated trust increases again following compensation (Desmet et al., 2011a). Given these findings and given that early violations of trust

are not only highly prevalent, but also detrimental to the further development of trust in exchange relations (Lount et al., 2008), we believe that examining how trust increases again following an early violation of trust poses an intriguing challenge for researchers and decision makers.

3.3.2 Conclusion

With this research, we hope to have shed some new light on how decision makers in economic exchange relations can deal effectively with the aftermath of unethical behavior. A common regulatory approach in response to harm in these relations consists of letting a third party (e.g. a supervisor, judge) decide whether and what reparation the transgressor needs to make. By putting victims' trust towards the transgressor central, we showed that this third party intervention, however, comes at a price. Because compensations are no longer indicative of the transgressors good intentions, a transgressor making larger amends will not necessarily be trusted more when he/she was ordered by a third party to do so. As such, our findings underline that the actual value of substantive financial compensations in restoring trust and cooperation is not only determined by their financial value, but also by what they communicate about the transgressor's intentions.

CHAPTER 4

4. INTENTIONS AND REPENTANCE IN THE EYE OF THE BEHOLDER: THE ROLE OF TRAIT FORGIVENESS⁴

4.1 INTRODUCTION

Trust is indispensable when we interact with others in the social world. In exchange relations, characterized by interactions in which our own outcomes are at odds with those of others, trust is important and useful because it not only reduces fear of exploitation, but also fuels us to be more benevolent and prosocial towards our interaction partners. In a wide variety of economic game settings (e.g. prisoner's and public good dilemmas), trust has been shown to foster cooperation, resulting in higher joint outcomes for the interacting parties (Parks et al., 1996; De Cremer et al., 2001). Despite these positive consequences of trust, people often show behavior that violates their interaction partner's trust and thus undermines cooperation (Boles et al., 2000; O'Connor & Carnevale, 1997, Schweitzer et al., 2006).

Given the pervasive and persistent negative consequences that a breach of trust may trigger (Lount et al., 2008, Schweitzer et al., 2006; Bies & Tripp, 1996; Robinson, 1996), it is surprising that to date only few studies have devoted attention to the interpersonal effects of trust violations in economic decision making and, more importantly, to how trust can be restored again in these settings. While some scholars have advocated the effectiveness of verbal offender accounts like apologies, promises or denials (e.g., Kim et al., 2004; 2006; Tomlinson et al., 2004), recent findings in economic exchange relations, in which a trust violation most often results in a monetary loss, have shown that providing a substantial

⁴ This chapter is based on Desmet, De Cremer & Van Dijk (2011c)

financial compensation may have a positive impact on restoring trust and cooperation (Desmet et al., 2011a; Bottom et al., 2002).

Although this new body of research is compelling and paves the way for an integrative framework on the restoration of trust and cooperation, the studies conducted so far all have in common that they focus on repair strategies that are *voluntarily* initiated by the transgressor. Voluntary repair offers on behalf of a transgressor, however, are not that regularly observed in the aftermath of real-life trust violations: apologies are often explicitly demanded by victims, financial compensations are habitually imposed by a judge, before a court. Although forced compensations may be more present in daily life, from a psychological point of view, one might wonder whether restorative acts actually reveal the expected positive effects when a transgressor did not have the initial intention to perform them and had to be coerced into making these amends.

Prior research has documented that one of the key determinants of successful restoration attempts is the perceived sincerity and remorse of the transgressor (e.g., Darby & Schlenker, 1982; Tomlinson et al., 2004; Okimoto, 2008). Voluntary, unforced acts of repair have the advantage that they can signal to the victim that the transgressor him- or herself genuinely has the intention to restore the relationship. Forced acts of repair, in contrast, do not necessarily reflect that the transgressor wishes to restore the relationship (Heider, 1958; Jones & Davis, 1965; Greenberg & Frisch, 1972). This suggests that voluntary acts of repair may be perceived as much more sincere than reparations that a transgressor did not intend to make. Consequently, the positive impact of acts of repair on trust and cooperation may be less clear-cut when such acts result from coercion by others than when they are initiated voluntarily by the transgressor.

In the present research, we examined whether in the context of a trust game, financial compensations are more effective in restoring trust when being offered voluntarily relative to being enforced by a third party. From a standard

economic point of view, one might argue that the victims of a trust violation in an economic game may be concerned primarily about the final outcomes they receive and as such little difference should be found between the manner in which a financial compensation is delivered. However, adopting a personality approach, we develop the argument that individual decision makers may differ in the way they are susceptible towards the information about how the financial compensation is delivered. That is, in the present paper, we argue that individual differences exist that predict the degree to which victims take this voluntariness of the act into account when deciding to trust again. Specifically, we propose that victims' dispositional tendency to forgive will determine to what extent the way a compensation was delivered will guide their trust behavior.

4.1.1 Trust (repair) and the importance of perceived intentions

Over the past decades, a growing number of researchers have devoted their attention to the study of trust in a variety of domains, sculpting a literature that is now vast and diverse. With this surge in research efforts, the literature has generated a myriad of different definitions of trust (e.g. Boon & Holmes, 1991; Mayer et al., 1995; Deutsch, 1960; Mellinger, 1956). Despite their abundance, most of these definitions recognize a similar core element as a basis of trust: an expectation of good intent on behalf of the interaction partner. This is best illustrated by the most widely accepted and cited definition of trust as “a willingness to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau et al., 1998).

Apart from providing us with an understanding of what trust is this notion of good intent can also help us to understand how violated trust might be repaired. In the case of a trust violation, when a victim's positive expectations are violated,

the challenge for a transgressor to earn a victim's trust again will be to revive this victim's thwarted expectations of good intentions. For a restorative attempt to be effective then, a victim's perceptions of the transgressor will have to be changed by acts that indicate at least good intent on behalf of the transgressor. But when do actions display good intent?

In economic exchange settings, where financial outcomes are divided between different parties, an important restorative act in response to distributive harm is to provide a financial compensation to the victim. Indeed, trust in these relations has been shown to be driven particularly by outcome-related concerns (cf. *calculus-based trust*, Lewicki et al., 2005; Lewicki & Bunker, 1996). As such, we could expect that receiving compensation for a monetary loss would be a sufficient response for victims of distributive harm. However, research in exchange relations has shown that actors' behaviour in these settings is not only driven by outcome-related concerns, but also by other, less tangible concerns, such as communicated intent (McCabe et al., 2003; Falk et al., 2008). Following this, we could expect financial compensations to be particularly effective in restoring trust and cooperation if they also communicate true repentance and renewed good intentions. Therefore, whether compensations are given voluntarily or following coercion by a third party may make a substantial difference in a victim's perception of a transgressor's repentance and good intent, and subsequently, his or her trust in the transgressor.

Research into other repair mechanisms (e.g. apologies) has shown that a key determinant of successful reparations is the perceived repentance they communicate: reparations are more effective when perceived as sincere and remorseful (Darby & Schlenker, 1982; Exline & Baumeister, 2000; Gold & Weiner, 2000; De Cremer & Schouten, 2008; Tomlinson et al., 2004; Ohtsubo & Watanabe 2009). Okimoto (2008) recently observed that this might also be the case for financial compensations. He found that following procedural injustice,

providing compensation to the victim is particularly effective if the compensation is construed as a benevolent gesture communicating remorse (Okimoto, 2008).

An important factor that influences the extent to which a transgressor is perceived as repenting, is whether the act is initiated voluntarily or following coercion. Voluntary reparations may be more effective in restoring trust as they are more likely to be seen as being sincere and signaling true remorse than responses that an offender was forced to make (Tomlinson & Mayer, 2009). This idea is consistent with early attribution theory that suggests that intentional acts are more likely to be attributed to the person himself than acts that an individual did not intend to make (Heider, 1958; Jones & Davis, 1965). Thus, voluntary actions are likely to be more diagnostic for the transgressor's true intentions and commitment than responses that are imposed.

We would therefore expect that in the context of economic exchange, financial compensations show more repentance when provided voluntarily as opposed to forced. Following this reasoning, we could also expect voluntary compensations to foster more trust. Having said this, we can, however, wonder whether a signal of repentance is always a necessary precursor for victims to act on in the process of trust repair. As mentioned earlier, from a standard economic point of view, it could also be reasoned that the victim of a trust violation primarily cares about the final outcomes he or she receives himself/herself. The way the compensation is delivered may then matter less. However, as argued above, psychologically speaking an outcome never comes alone: a trust repair act (i.e. providing a compensation) always conveys additional information about why it is delivered. Adopting this psychological perspective, we reason that some individual decision makers can be more susceptible towards the manner in which a financial compensation is delivered than others. In other words, we argue that whereas voluntary compensations will indeed communicate more repentance to

victims, not all people will be equally affected by this repentance in their decision to trust again. That is, while for some people seeing a transgressor repent may be a prerequisite to trust and showing behavioral goodwill, others may find a transgressor's repentance less vital to their willingness to be vulnerable again. We propose that individual differences in people's tendency to forgive will influence the impact of the voluntariness of financial compensations on victims' trust.

4.1.2 Trait Forgiveness as a moderator

Whereas for years, the study of forgiveness seemed a focal point reserved for theologians and moral philosophers (Adams, 1991; Jones, 1995; Griswold, 2007), in the last decades psychologists too have started to devote empirical attention to the subject of forgiveness (Exline et al., 2003). A commonly accepted view on forgiveness is that it involves moving away from a negative state or motivation to a more positive one. Enright and the Human Development Study Group (1991) for example, describe forgiveness as volitionally abandoning resentment and indifferent behavior while at the same time fostering compassion and generosity towards the transgressor. Likewise, McCullough (2001) argues that when people forgive, they become less motivated to harm the offender and more motivated to act in ways that benefit the transgressor or their relationship with the transgressor; McCullough (2001) therefore defined forgiveness as a more general prosocial change in motivation.

It has been argued that although forgiveness can foster reconciliation (see e.g. Worthington 2006), forgiveness is fundamentally distinct from reconciliation (Fincham 2000; Brown, 2003). Reconciliation is a bilateral process that requires goodwill by both partners, whereas forgiveness can be given by victims regardless of an offender's intentions and actions (Fincham 2000). Forgiveness can therefore be seen as an unconditional, volitional response to another person: victims who

choose to forgive may do this unconditionally, without regard for the offender's current attitudes and behavior (Enright, Freedman, & Rique, 1998).

Importantly, studies have now revealed that stable individual differences exist in people's tendency to forgive others (Berry et al., 2001; Brown, 2003; Brown & Phillips, 2005). As such, this may have implications for whether victims are more or less conditional in their decision to forgive a particular transgression: not all victims will equally take into account situational aspects of the violation or the offender's actions. This idea is for example nicely reflected in the findings of Brown & Phillips (2005), which seem to suggest that people with a high tendency to forgive are less guided by the severity of the offense when granting forgiveness than people with a low tendency to forgive, who discriminate more strongly between severe and less severe offenses.

In a similar vein, we hypothesize that when it comes to deciding to make oneself vulnerable again (i.e. trust), people with a high tendency to forgive will be less influenced by whether an offender repents or not. Whereas for people with a low tendency to forgive, seeing a transgressor repent or not can have an important impact on their subsequent behavior, victims who are high in trait forgiveness will consider it less of a prerequisite that a transgressor is repenting. Therefore, we expect that victims with a high tendency to forgive will be less influenced by whether a financial compensation was given voluntarily or following coercion in their decision to trust again.

4.2 EXPERIMENT 4.1

In Experiment 4.1, we will investigate whether the extent to which a financial compensation is provided voluntarily impacts trust. We expect that compensations provided voluntarily will always make a transgressor seen as more

repentant than compensations that were forced. We further predict that not all people will base their decision to trust again on the perceived repentance of the transgressor. In fact, we propose that individual differences in victims' tendency to forgive (TTF, Brown, 2003) will determine the degree to which victims differentiate between a compensation that was either forced or voluntary, in their decision to trust again.

We addressed these questions using the trust game paradigm. The trust game, originally designed by Berg et al (1995), is a widely used experimental method that allows to measure trust as investment decisions in the setting of an economic exchange relation. The first agent in this game, Player 1 (*trustor*), receives a certain amount of money and can send any part of this endowment to the second agent, Player 2 (*trustee*). The amount that Player 2 receives is then tripled, and Player 2 can subsequently decide how much of this tripled amount he sends back to Player 1. When Player 1 decides to trust Player 2 (and gives substantially), Player 2 can then decide to act trustworthily (giving a substantial amount back to Player 1) or to violate Player 1's trust (e.g. return little or nothing). Apart from measuring trust as cooperative behaviour, we also included self-reported measures of trust.

4.2.1 Method

Participants and experimental design. 72 university students volunteered to participate in a "decision-making experiment" that allowed them to earn money. Participants were randomly assigned to one of the two between subjects conditions (forced or voluntary compensation).

Experimental procedure. Upon arrival at the laboratory, participants were seated in a cubicle and told that they would perform several smaller, unrelated tasks consisting of questionnaires, a colour perception experiment (i.e. a

filler task) and an interaction task with another participant in another cubicle. Participants were informed that whereas all instructions were given via the computer, the actual interaction (money transfers), would take place with the experimenter functioning as a go-between between the interacting parties. Participants were not able to see or hear each other during the entire experiment. Finally, all participants were given a pencil, answer sheets and an envelope containing 10 coins of 0,20 € (2 euros).

Assessment of trait forgiveness. Embedded in other, unrelated questionnaires in the beginning of the experimental session, dispositional forgiveness was measured using the Tendency to Forgive scale (TTF; Brown, 2003). Items on the TTF ask individuals to indicate how they usually respond when someone commits a transgression against them (e.g., “I tend to get over it quickly when someone hurts my feelings”). Participants answered on 7-point Likert scales, where 1 = disagree strongly and 7 = agree strongly. The TTF has been shown to have acceptable internal reliability, with Cronbach’s alphas ranging from .73 to .75 (Brown, 2003, 2004; Brown and Phillips, 2005). Cronbach’s alpha in the present study was .77. After filling out the questionnaires, participants completed a distractive colour perception task (+/- 10 minutes).

Trust game and trust violation. Next, participants engaged in a trust game with *actual* financial outcomes at stake. Not only did participants receive and distribute actual money in envelopes, they were also paid according to their decisions in the game. Participants believed that they would play multiple rounds of an interaction task. They were told that for this task they would need the envelope containing the 10 coins. All participants were assigned to the role of Player 1 and interacted with a confederate Player 2. Participants were given two options in round 1. They could either decide to give all of the 10 coins to Player 2 (trust) or they could choose to give no money to the counterpart (no trust).

Participants were informed that if they decided to transfer their endowment to the other, the amount would be tripled by the experimenter, after which the other had to decide how much of these 30 coins he or she would give back. To create an incentive for participants to trust in the first round, participants were told that if they chose the latter option, they could only keep half of their original endowment (1 instead of 2€).

After participants made their decision, the experimenter came by to collect the answer sheets and envelope. When a participant decided not to invest, the experiment ended, he/she was debriefed and paid 1€ for their participation (7 participants). When participants chose to invest (65 participants), the experimenter ostensibly tripled the amount and told the participants to wait for some time, while the other participant made his/her decision. After a few minutes, the experimenter re-entered the participant's cubicle and gave participants an envelope containing a filled out form, indicating that for that round, the other person had decided to return nothing to the participant.

Compensation type manipulation (voluntary or forced). After participants responded to some questions concerning the other's decision, the experimenter re-entered the cubicle with the message that the other person had been given the one-time opportunity to reconsider his offer and maybe give some extra coins to them. In the *voluntary* condition, participants were told the following: "When we explained this opportunity, the other person voluntarily offered to give you something more because - as he stated - the two of you still have to interact for a long remainder of rounds." Participants in the *forced* condition were told: "After we explained this opportunity, the other person did not express willingness to do this. However, because the two of you still have to interact for a long remainder of rounds, we pressured him into giving you something more." After participants received one of these messages, they were given an envelope containing 15 coins.

Assessment of trust behaviour. A behavioural measure of trust was taken by letting the participants play a second round of the trust game. For this purpose, participants received another 10 coins of 0,20 € (2 euros). In contrast to round 1, in which they could only decide whether to invest or not, we created a continuous measure of trust for round 2, by letting the participants choose how many coins they would be willing to give to Player 2, and how many they would keep for themselves. They were also informed that any amount they decided not to transfer, would be theirs to keep.

Self-reported trust. Apart from this behavioural measure, we also measured self-reported trust. After a financial compensation was provided, participants answered 6 questions, assessing trustworthiness perceptions and trust (7-point Likert scales, based on De Cremer, 2004; Mayer et al. 1995, the benevolence scale; 1 = *not at all*, 7 = *very much so*). Exemplary items were: “To what degree do you think you can trust this person?” or “do you think this person will be trustworthy?”. These scores were combined into a general measure of trust towards the other (Cronbach’s $\alpha = .93$).

Perceived repentance. After receiving a financial compensation, we also asked participants to what degree they perceived the other person as repentant (7-point Likert scale, 1 = *not at all*, 7 = *very much so*).

4.2.2 Results

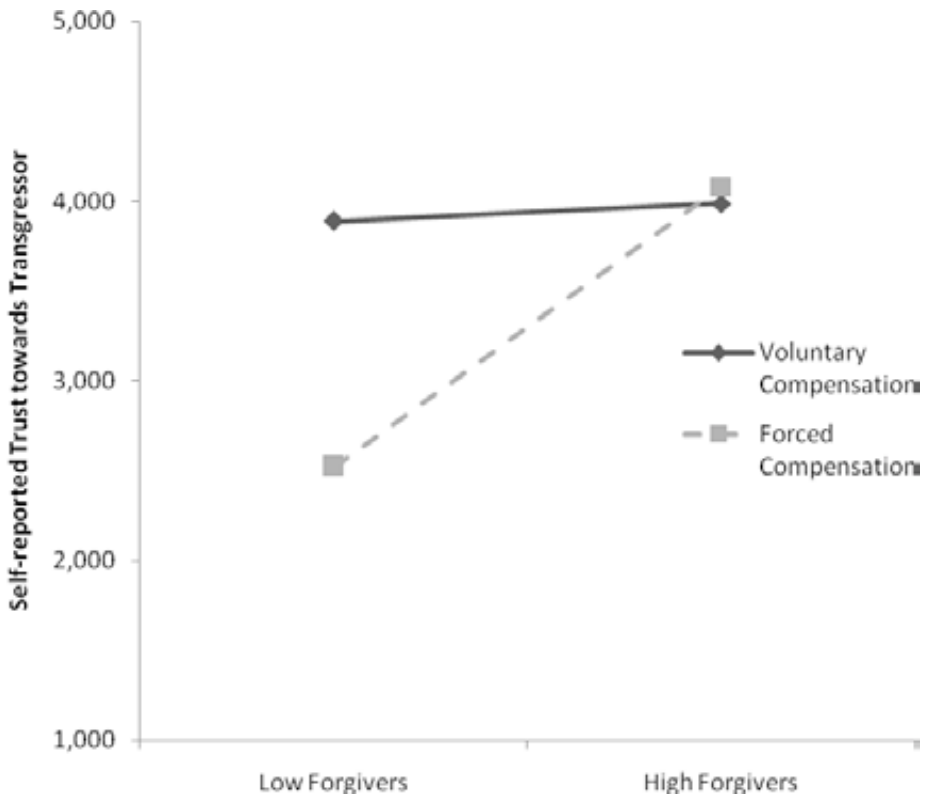
Manipulation checks. To verify whether our compensation type manipulation was successful, we asked participants on 7-point Likert scales to what degree they thought the other person provided the compensation voluntarily and to what degree the other had been forced to provide a compensation (reverse scored). After rescaling the latter item, scores on both items were summed up and

divided by two to create a scale ($r = .384, p < .005$). This scale was entered as dependent variable in a General Linear Model with both our manipulated variable (compensation type, 2 levels), standardized TTF scores (continuous) and their interaction as predictors. This analysis only revealed a main effect for compensation type, $F(1,61) = 25.89, p < .001, \eta^2 = .30$, indicating that participants in the voluntary condition ($M = 3.97, SD = 0.23$) perceived the compensation more as more voluntary (and less forced) than participants in the forced condition ($M = 2.32, SD = 0.23$).

Perceived repentance. A General Linear Model with compensation type, TTF and their interaction predicting the perceived repentance of the transgressor, revealed only a main effect of compensation type, $F(1,61) = 5.92, p < .05, \eta^2 = .09$, indicating that transgressors who compensated voluntarily ($M = 4.27, SD = 0.30$) were perceived as more repentant than transgressors who were forced to compensate ($M = 3.23, SD = 0.31$).

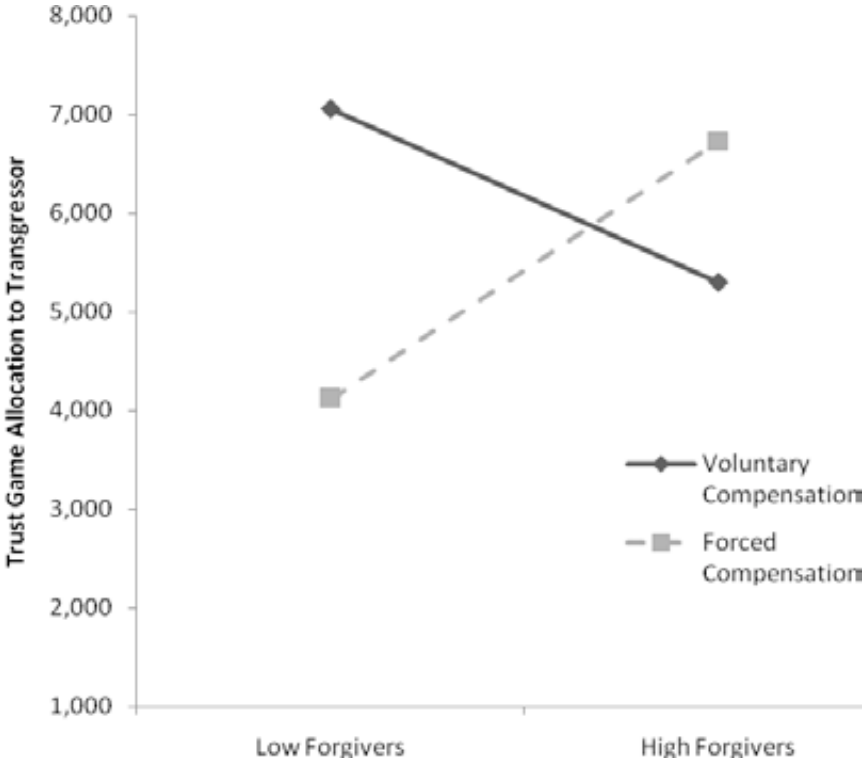
Self-reported trust. A General Linear Model with compensation type, TTF and their interaction predicting self-reported trust, revealed a main effect for compensation type, $F(1,61) = 4.20, p < .05, \eta^2 = .06$: victims reported more trust towards a transgressor that compensated voluntarily ($M = 3.94, SD = 0.22$), as compared to a transgressor that was forced to compensate ($M = 3.30, SD = 0.22$). Furthermore, a significant main effect for tendency to forgive, $F(1,61) = 6.91, p < .05, \eta^2 = .10$, indicated that people with a high tendency to forgive showed more trust than victims with a low tendency to forgive, $b = .78, t(62) = 3.71, p < .001$. These main effects were however qualified by the predicted interaction effect, $F(1,61) = 5.37, p < .05, \eta^2 = .08$: while people with a low tendency to forgive discriminated strongly between a voluntary or a forced compensation, $b = 1.37, t(62) = 3.09, p < .005$, people with a high tendency to forgive did not, $b = -.09, t(62) = -.211, ns$. These results are displayed in Figure 4.1.

Figure 4.1: Self reported trust as a function of compensation type and TTF scores. Low and high values on the TTF scale were calculated at ± 1 SD.



Trust behaviour. The same analysis as for self-reported trust, with now trust behaviour as dependent variable, revealed the same predicted interaction effect, $F(1,61) = 6.74$, $p < .05$, $\eta^2 = .10$. People with a low tendency to forgive discriminated strongly between a voluntary or a forced compensation, $b = 2.94$ $t(62) = 2.46$, $p < .05$. Victims with a high tendency to forgive were not affected by compensation type and gave someone who was forced to compensate just as much as someone who voluntarily offered compensation, $b = -1.47$ $t(62) = 1.24$, ns . These results are displayed in Figure 4.2.

Figure 4.2: Trust game allocation of victims towards the transgressors as a function of compensation type and TTF scores. Low and high values on the TTF scale were calculated at ± 1 SD.

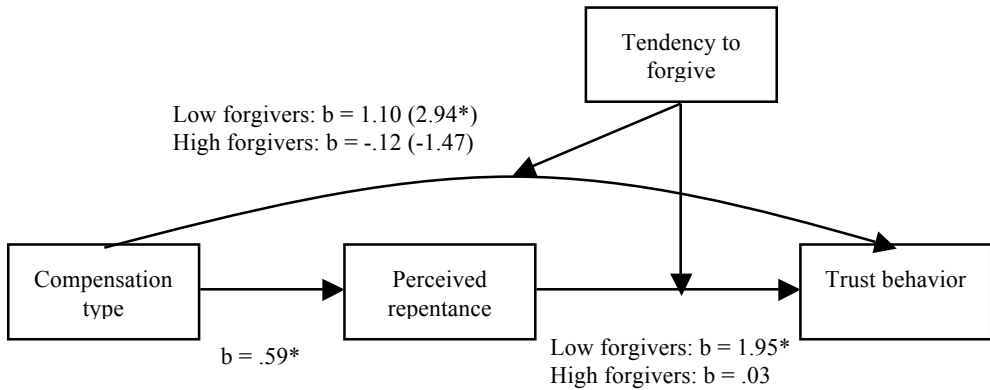


Moderated mediation analyses (perceived repentance). While the main effect of compensation type on repentance showed that victims perceive a transgressor compensating voluntarily as more repenting than a transgressor who was forced to compensate, the forgiveness x compensation type interaction on trust behavior indicates that when it comes to showing trust, only low forgivers seem to discount for perceived repentance in their decision to trust.

Therefore, we tested a conditional mediation model in which forgiveness moderates the indirect effect of compensation type on trust behaviour through perceived repentance. Specifically, we estimated whether repentance mediates the effect of compensation type on trust behavior more among low forgivers, than for high forgivers. We therefore conducted an additional regression analysis (see Baron & Kenny, 1986) including all previously described independent variables and investments in the second round as dependent variable. In the final step, repentance was added as an additional predictor. This analysis showed that the forgiveness x repentance interaction indeed significantly affected investments, $F(1,57) = 3.77, p = .05, \eta^2 = .06$. Moreover, entering repentance rendered the interactive effect of tendency to forgive and compensation type on investments nonsignificant, $F(1,57) = .31, ns$.

To formally test this *moderated mediation* (see Muller, Judd, & Yzerbyt, 2005), we proceeded by using a bootstrap method, developed by Preacher, Rucker & Hayes (2007). In accordance with our predictions, forgiveness was treated as a moderator of the path from repentance (the mediator) to trust behaviour (the dependant variable), and not as a moderator of the path from compensation type (the independent variable) to repentance (the mediator). Our effect estimates are based on 10000 bootstrap samples. The analysis supported our hypothesis: the indirect effect of compensation type on trust behavior, via repentance, was significantly larger than 0 for low forgivers ($z = -1.83, p < .05$), but not for high forgivers ($z = 1.49, ns$). The results of these mediation analyses are illustrated in Fig. 4.3.

Figure 4.3: Path diagram of the role of perceived repentance in mediating the impact of compensation type on trust behavior, as a function of tendency to forgive.



4.3 GENERAL DISCUSSION

Taken together, the present findings supported our hypotheses. Whereas receiving a voluntary compensation communicates more repentance to victims than when this compensation was imposed, particularly people with a low tendency to forgive discount this repentance in their decision to trust again. Moreover, for victims with a high tendency to forgive, perceived offender repentance matters less in their willingness to be vulnerable again. The present findings contribute significantly to the growing literature on trust repair in economic exchange relations in several ways.

A first contribution lies in the fact that we investigated the influence of compensations as a function of whether they were imposed by a third party or offered voluntarily. Prior research only focused on repair strategies that were voluntarily initiated, whereas in real life, financial compensations are often

obtained through a third party that obliges an offender to pay compensation to the victim (cf. litigation). By showing that the voluntariness of the act unveils information pertaining to a transgressor's perceived repentance, which in turn can influence a victim's future cooperation, we believe to have identified a new and important factor contributing to the effectiveness of restorative actions in economic exchanges.

A second contribution is that we examined trust repair by looking at the influence of victim characteristics at the personality level. While previous research evaluated trust repair in terms of characteristics of the transgression, offender tactics, or relationship characteristics, we proposed and found that individual differences in victims' tendency to forgive determine the degree to which perceived repentance functions as a prerequisite for trust and cooperation. This finding is particularly important as it contrasts with standard economic theories that would argue that victims of trust violations in economic exchanges should not be concerned about how a financial compensation is delivered, as the primary concern should be with how much one eventually ends up with. The fact that people clearly differ in whether they take into account how voluntarily a compensation procedure is shaped, indicates that not all individuals adopt a rational perspective in which outcomes are the primary driver of one's judgments and behaviors. As such, in line with the theme of the present special issue, our findings strongly underscore the importance of adopting a personality (i.e. tendency to forgive) x situation (i.e. compensation type) perspective when examining decision behavior in trust games.

A third contribution is that we unveiled the process through which the voluntariness of the restorative act impacts subsequent behavior, that is, through perceived offender repentance. Our moderated mediation analyses showed that while voluntary (as opposed to forced) compensations always communicate more

repentance (regardless of victims' tendency to forgive), low forgivers will be more inclined to base their trust judgment and behavior on this perceived repentance than high forgivers. Although victims who are more prone to forgive do not miss out on situational cues that unveil important information about a transgressor's current attitude and intentions towards him or her (repentance), they choose to be vulnerable again and do so less conditionally. These results thus also corroborate previous ideas findings that forgivers are more inclined to forgive unconditionally (Fincham 2000; Brown & Phillips, 2005). However, we also need to point out that our findings do not allow us to conclude that high forgivers will always be more prone to forgive, regardless of the offender's reparative actions. As we did not include a condition in which no compensation was offered, it is difficult to say whether victims with a high tendency to forgive will continue to trust even when no compensation is provided by the transgressor. It would be worthwhile for future research to shed light on this issue and investigate to what degree this unconditional forgiving would uphold when a transgressor decides not to undertake reparative actions or, even worse, displays even more negative reactions, such as malicious pleasure or victim blaming.

In light of the above, our findings also contribute to the literature on forgiveness. Only recently, stable individual differences have been identified in people's general tendency to forgive (Berry et al. 2001; Brown, 2003). As a result, research so far was dedicated either to linking forgiveness to other dispositional variables (see Berry et al. 2001; Brown, 2003) or to validating its ability to predict forgiveness in specific situations (Brown & Phillips, 2005; Koutsos, Wetheim, & Kornblum, 2008). However, prior research has largely ignored how this tendency to forgive might *interact* with the way contextual factors are processed in the course of restoration attempts. By demonstrating that trait forgiveness determines whether a victim reacts more favorably towards voluntary acts as opposed to forced acts, and by uncovering the process through which this occurs (perceived

repentance), we believe to have made a broader contribution to this literature, by exposing an empirical link between this relatively new developed trait, a situational factor, and real-life behavior.

In conclusion, our findings on the influence of dispositional forgiveness illustrate the value of taking a broader, interactionist perspective on studying economic decision making. We investigated the ways that attributes of persons (e.g. their tendency to forgive) and features of their situations (e.g. the voluntariness of the restorative act and the repentance it communicates) are integrated by individuals as they construct and pursue agendas for economic action. As such, an overall recommendation for future research on economic decision-making is to focus more strongly on the interactive effect of psychological states, predispositions and situational cues when predicting judgments and behavior.

CHAPTER 5

WHEN COMPENSATION IS NOT ENOUGH: RESTORING TRUST IN INDIVIDUALS AND GROUPS

5.1 INTRODUCTION

In our daily lives and work relations, we frequently interact with individuals or social collectives on whom we depend for receiving tangible outcomes. Given that these relations are characterized by the exchange of resources that have economic value, these relations are typically referred to as economic exchange relations. In such settings, trust has proven to play a pivotal role in creating and preserving cooperative behavior (Kramer & Tyler, 1996; Parks et al., 1996; Komorita, Sheposh, & Braver, 1968; De Cremer et al., 2001). Notwithstanding this importance of trust, actors in these relations nevertheless are often seen slipping into defection, hence risking trust to be eroded and cooperation to be endangered (Elangovan & Shapiro, 1998). Despite the abundant empirical work on the benefits of trust in economic exchange relations, scholars have remained relatively silent on how violated trust might be repaired in these relations. As a result, an important challenge for actors in economic exchange relations these days remains in examining how violated trust might be restored.

Although a general consensus exist on the definition of trust as “a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another” (Rousseau et al., 1998 p. 395), scholars also agree that trust is shaped by different concerns depending on the type of relation one is involved in (Rousseau et al., 1998; Sheppard & Sherman, 1998; Lewicki et al., 1998). Trust in economic exchange relations, for example, has been described as being more calculus-based as

opposed to identification-based. Rather than being driven by an identification with the interaction partner's desires and motives, trust in these relations is seen as a more market-oriented, economic calculation where actors decide to trust based on the expectancy of receiving a specific, tangible benefit (Lewicki & Bunker, 1995, 1996; Lewicki et al., 2005). As a result, it has been argued that particularly the outcomes that one receives serve as indicators of trustworthiness and as the basis for trust in these relations.

Based on this view, Desmet and colleagues (2011a) hypothesized that when one party in these relations violates another party's trust by inflicting distributive harm to the other, addressing this harm and the victim's outcome related concerns by providing a compensation should have a positive impact on victim's trust towards the transgressor. Across several experiments these authors saw their hypotheses confirmed and observed that substantial financial compensation of the harm can increase victims' trust towards the transgressor again. Likewise, Bottom and colleagues (2002) argued that as violations in the context of economic exchange relations often entail a financial loss for the victim, victims might view the provision of an apology alone as cheap talk and that therefore the transgressor needs to substantiate an apology with a financial compensation. Although their results confirmed this theorizing to the extent that apologies accompanied by compensation were more effective than apologies alone, interestingly, these authors also observed that even when no compensation was provided, the provision of an apology alone was also effective to some extent. These findings thus seem to suggest that a victim's decision to trust again might not only be determined by the degree to which instrumental, outcome-related concerns are addressed (by means of a financial compensation) but also by whether or not relational concerns are addressed (by means of an apology).

5.1.1 Apologies and relational concerns

Despite the importance of outcomes in shaping trust in economic exchange relations, research has also shown that even in these exchange contexts like in negotiations or public good dilemmas, not only instrumental, financial motives are of value, but also more subjective, relational concerns play an important role (Curhan et al., 2006; De Cremer, 2002). In the justice literature as well it has been postulated that people in exchange relations not only have concern for the outcomes they receive (i.e. distributive justice), but also for relational aspects, such as the way these outcomes are obtained, their status in the relation and the degree to which they are treated with respect (i.e. procedural and interactional justice, Lind & Tyler, 1988; Tyler & Lind, 1992; Tyler & Bies, 1990). As a result, a trust violation in economic exchange relations may not only affect a victim's concern for distributive aspects of the violation, but also for relational aspects. One way in which a transgressor can also address these relational concerns in the restoration process is by providing an apology along with a financial compensation. However, research in economic exchange relations has not yet answered the question whether addressing relational concerns by means of an apology actually restores trust further if the transgressor already provides a financial compensation.

Just as a violation puts a victim in an inferior position towards the transgressor, apologies have the purpose to lower the status of the transgressor and to restore the social harmony (Hareli & Eisikovits, 2006). Because transgressors who apologize symbolically subordinate their status in the relation through the expression of remorse and the admission of responsibility, scholars have identified the apology as a suitable candidate for expressing relational concern to the victim (Okimoto & Tyler, 2007). Okimoto and Tyler (2007) investigated whether

expressing relational concerns in addition to providing a financial compensation can be more effective than providing compensation alone. The authors observed this was indeed the case: across four studies they found that victims of distributive harm reacted more favorable towards a compensation if it was accompanied by relational concern (Okimoto & Tyler, 2007).

5.1.2 When financial compensations need apologies: it depends on the interaction partner.

The findings above would suggest that victims of distributive harm might respond more favorable when a transgressor not only provides compensation, but also expresses relational concern through the provision of an apology. However, important to note is that in the studies of Okimoto and Tyler (2007), the decisions to provide compensation and to express relational concern or not, were made by a collective entity (a group) rather than by an individual. Importantly, actors in an exchange relation who receive relational concern from a group might value this concern more than actors who receive relational concern from a sole individual.

When an individual no longer interacts with a single person but with a group of people who have to make joint decisions, the structure of the relation changes dramatically, as the outcomes of the individual now no longer depend on the decisions of one person, but of more people. If an individual's outcomes depend on more people, the individual may experience more uncertainty about whether his/her trust will be honored and about whether he/she will receive the desired outcomes (Kerr, 1989; Sato, 1988; Sniezek, May, & Sawyer, 1990). Furthermore, an individual interacting with a group may also have poor insight in the dynamics that guide the group's decisions, even when he/she eventually receives a favorable outcome. Given this higher social uncertainty, it seems plausible that individuals in such situations will more actively seek and use social

cues in their decision to trust a group. In fact, a recent review has shown that the more people one's outcomes depend on, the more weight an individual places on communication with those others when deciding to cooperate or not (Balliet, 2010).

Given this increased uncertainty when interacting with groups, scholars have argued that people who interact with a group are also likely to be more sensitive to the expression of relational concern (De Cremer & Tyler, 2005). As particularly apologies can address relational concerns following a violation (Okimoto & Tyler, 2007), one could therefore expect victims of a trust violation who are interacting with a group (rather than with an individual) to be more sensitive to whether or not apologies are provided as part of the restoration. Indirect support for this expectation comes from recent research that showed that people indeed value different elements of a reparation depending on whether they see themselves more as an individual that depends on a larger group than when they see themselves as less dependent of others. Fehr and Gelfand (2010) for example observed that whereas victims with a dominant relational or collective self were more forgiving towards restorations that conveyed the basic components of an apology (empathy or an admission of violated norms, respectively), victims with a less dependent self-construal were more influenced by whether or not compensation was provided for the violation. In line with this, we believe that particularly when people are interacting with a group of people rather than with an individual, will the provision of an apology in addition to a financial compensation have an added positive effect on trust (as compared to a compensation alone).

5.1.3 The present research

In the present research, we examined in the context of an economic exchange relation whether the provision of a financial compensation *and* an apology by the transgressor can restore victims' trust more than when the transgressor solely provides a (quiet) compensation. We suggest that apologies can indeed exert an additional effect on trust, but hypothesize that this effect will particularly emerge when a victim is interacting with a group rather than with an individual.

The paradigm we used in our studies was rooted in the 'trust game', originally designed by Berg et al (1995). The trust game in its most basic form measures trust between two agents as investment decisions in an economic exchange context. The first agent in this game, the *trustor*, receives a certain amount of money and can send any part of this endowment to the second agent, the *trustee*. The amount that the trustee receives is then tripled, and the trustee can then decide how much of this tripled amount he sends back to the trustor. When a trustor decides to trust the trustee (and gives substantially), the trustee can then choose to act trustworthy and give a substantial amount back to the trustor or to violate the trustor's trust and return little or nothing.

5.2 EXPERIMENT 5.1

5.2.1 Method

Participants and experimental design. 97 Dutch university students were randomly assigned to one of the four conditions of our 2 (Interaction partner: individual vs. group) x 2 (Restoration type: compensation vs. compensation and apology) between subjects design. All participants volunteered in a 'decision-

making assignment' in return for course credits and the possibility of earning some money.

Procedure. When participants arrived at the laboratory, they were welcomed and placed in separate cubicles containing a computer, a chair and a table. Depending on the condition they were assigned to, participants were then told they would interact with either one participant or a group of two participants who had to coordinate their decisions. Participants were also informed that whereas all instructions were given via the computer, the actual interaction (transfer of tickets), would take place with the experimenter functioning as a go-between between the interacting parties. Participants were not able to see or hear each other during the entire experiment. Finally, all participants were given a pencil, some answer sheets and an envelop containing 10 lottery tickets.

Trust game and trust violation. Next, all participants were assigned to the role of trustor and engaged in a trust game with confederate trustees. Instructions informed the participants that they would play multiple rounds of an interaction task (either with a group or a an individual). They were told that for this interaction task they would need the envelope containing the 10 tickets. After this, the rules of the trust game were explained more in detail. Participants were instructed that each round, he or she would receive 10 tickets and that they had two options in round 1. They could either decide to give all of the 10 tickets to the other party (trust) or they could choose to give no tickets at all (no trust). Participants were informed that if they decided to transfer their tickets to the other party, the number of tickets would be tripled by the experimenter, after which the other party had to decide how much of these 30 tickets it would give back. To create an incentive for participants to trust in the first round, participants were told that if they chose the latter option, they could only keep half of their original endowment (5 instead of 10 tickets).

Participants who interacted with a group were furthermore also notified that, only at the end of the interaction task, both group members would each receive the number of tickets that the group had earned together (i.e., group members did not have to split the number of tickets earned). We included this crucial instruction (and a check assessing whether they correctly understood this instruction) in order to prevent participants from assuming that group members in the end would only receive part of what the group had earned and therefore would be more entitled to or have a stronger preference throughout the experiment for unequal outcomes in favor of the group.

After participants indicated that they had made their decision, the experimenter came by to collect the answer sheets and envelope. When a participant decided not to invest, the experiment directly ended and he/she was debriefed and paid 1€ for their participation. In the current sample, 5 participants indicated that they chose not to give any money to the other party. For participants who chose to invest ($n = 92$), the experimenter ostensibly tripled the tickets and told the participants to wait for some time, while the other party made a decision. After a few minutes, the experimenter re-entered the participant's cubicle and handed out a form filled out by hand, indicating that for that round, the other party had decided to return no tickets to the participant.

Restoration Manipulation. After participants responded to some questions concerning the allocations for round 1, the experimenter re-entered the room with another envelope and explained to the participants that “Since this was the first round of the game, the other party had been given the opportunity to reconsider his/her/their allocation and was given the option to give them extra tickets”. In the compensation only condition, they received an answer sheet which indicated that the other(s) had decided to give something back, after which the number of tickets (15) was specified in hand-writing. In the compensation *and* apology conditions, this answer sheet also contained a hand-written apology. This

apology included a statement of apologetic intent with an admission of responsibility and an expression of remorse showing that the other party acknowledged the violation as a transgression and felt bad about it. Participants in the individual setting therefore received the following apology: “I’m sorry I didn’t give you any tickets, that wasn’t nice of me”. Similar, in the group condition, participants read: “We’re sorry we didn’t give you any tickets, that wasn’t nice of us”.

After this statement,

Trust behavior. The dependent variable in Experiment 5.1 was victims’ trust behavior in the second round of the trust game. For this purpose, after the provision of the compensation (with or without apology), participants were again endowed with 10 lottery tickets and played a second round of the trust game. In this second round, participants could choose to send any number of tickets between 0 and 10, providing us with a continuous measure of their willingness to trust again. Participants were also informed that any tickets they decided not to transfer would be theirs to keep.

5.2.2 Results

Manipulation checks. To test whether our apology manipulation was successful we asked participants in these particular conditions to indicate whether the other party had also send them a message and asked them to type in what the other(s) had written. All participants correctly copied the apology they received, indicating that our manipulation was successful.

Trust behavior. A 2 (Interaction partner: individual vs. group) x 2 (Restoration type: compensation vs. compensation and apology) between subjects ANOVA on the amount of tickets participants were willing to invest in the second

round of the trust game, only revealed our predicted interaction effect, $F(1,88) = 8.04$, $p < .01$, $\eta^2 = .08$. The mean allocations are displayed in Table 5.1.

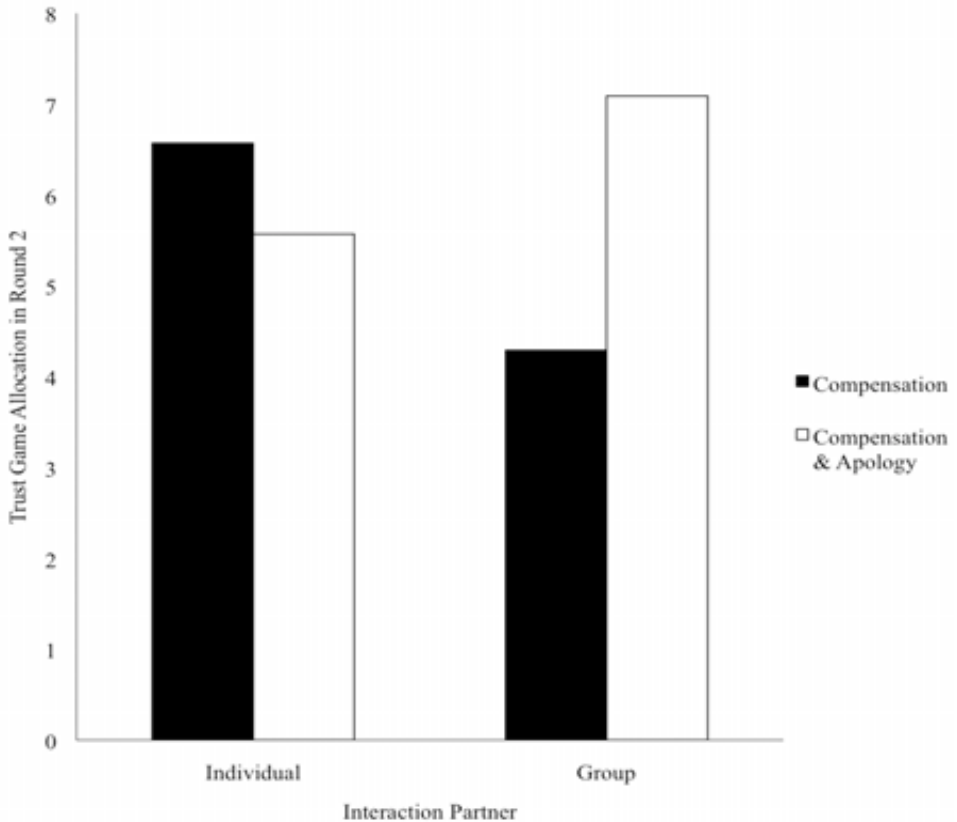
Table 5.1: Mean allocation in round 2 as a function of Restoration Type and Interaction Partner for Experiment 5.1.

	<i>Compensation</i>	<i>Compensation and Apology</i>
Individual	6.57 (0.67) a	5.57 (0.67) a
Group	4.29 (0.66) a	7.09 (0.69) b

Note: Higher ratings indicate higher levels of trust restoration. Standard deviations are within parentheses. Means with different subscripts per row differ significantly from each other after pairwise comparisons (Bonferroni adjusted).

Closer examination of the interaction effect (pairwise comparisons with Bonferroni adjustment for multiple comparisons) revealed that whereas for victims interacting with a group, receiving an apology in addition to a compensation did result in more trust, $F(1,88) = 8.72$, $p < .01$, $\eta^2 = .09$, for victims who were interacting with an individual, receiving an apology did not have an additional effect on trust compared to the sole provision of a compensation, $F(1,88) = 1.11$, *ns.* and illustrated by Figure 5.1.

Figure 5.1. Mean Allocation in second Round of Trust Game as a Function of Restoration Type and Interaction Partner for Experiment 5.1.



5.2.3 Discussion

As expected, the results of Experiment 5.1 confirmed our hypothesis that receiving an apology in addition to a compensation can have an additional positive effect on trust, but particularly when people are interacting with a group rather than with an individual. Although these findings were consistent with our theorizing, we conducted a second experiment for several reasons.

A first reason to conduct a follow-up study was that the apology used in experiment 5.1 did not include a promise. While some researchers have argued that apologies do not necessarily need to contain a promise (Bies, 1987; Schweitzer et al., 2006), other scholars have claimed that for apologies to be complete, they need to include an explicit promise of future trustworthy behavior (Goffman, 1971; Schlenker, 1980). Therefore, for the sake of completeness, in Experiment 5.2 we used a more elaborate apology that also contained a promise of future trustworthy behavior.

Furthermore, in Experiment 5.1, trust was only measured as investment decisions in a second round of trust game. Although this behavioral measure is a widely accepted method to assess trust between agents in economic exchange relations (see, e.g. Eckel & Wilson, 2004), there still remains a possibility that it is not necessarily trust alone that guides people's behavior in this game. Therefore, we also included self-reported measures of trust in Experiment 5.2, to ensure that it is actual trust that underlies our observed effects.

Finally, Experiment 5.1 was played by exchanging envelopes containing lottery tickets. Although the technique of exchanging lottery tickets has proven to be a fruitful and valid way of studying game behavior in exchange relations (Read, 2005), we chose a different approach in Experiment 5.2 to raise confidence in the ecological validity of our results. For this purpose, in Experiment 5.2, participants engaged in a trust game in which they received and distributed actual money in envelopes.

5.3 EXPERIMENT 5.2

5.3.1 Method

Participants. 93 students from a Dutch university volunteered to participate in a 'decision-making assignment' in return for money. Participants were randomly assigned to one of the four conditions of our 2 (Interaction partner: individual vs. group) x 2 (Restoration type: compensation vs. compensation and apology) between subjects design.

Procedure. The procedure was identical to experiment 5.1. Upon arrival at the laboratory, participants were welcomed and placed in separate cubicles and all participants were given some answer sheets and an envelop containing 10 coins of 0,20 € (2 Euros). Participants were not able to see or hear each other during the entire experiment.

Next, participants engaged in a trust game with financial outcomes at stake. Participants not only received and distributed actual money in envelopes and they were paid according to their decisions in the game. As in Experiment 5.1, all participants were assigned to the role of trustor and interacted with confederate trustees. Depending on the condition they were in, participants were told they had to interact with either one participant or a group of two participants. Participants were also informed that all instructions were given via the computer, whereas the actual interaction (money transfers) would take place with the experimenter functioning as a go-between between the interacting parties.

Trust game and trust violation. As in Experiment 5.1, instructions informed the participants that they would play multiple rounds of an interaction task. They were told that for this interaction task they would need the envelope containing the 10 coins. Then the rules of the trust game were explained more in detail, as described for Experiment 5.1.

To create an incentive for participants to trust in the first round, participants were informed that in the first round, he or she could only decide between two options. They could either decide to give all 10 coins to the other

party (trust) or they could choose to give none to the other(s). If they chose the latter option, they could only keep half of their original endowment (5 instead of 10 coins, 1€ instead of 2€). After participants indicated that they had made their decision, the experimenter came by to collect the answer sheets and envelope. When a participant decided not to invest, the experiment directly ended and he/she was debriefed and given 1€ for their participation. In the current sample, 7 participants indicated that they chose not to give any money to the other party and were hence removed from the sample. For participants who chose to invest ($n = 86$), the experimenter ostensibly tripled the amount of coins and told the participants to wait for some time, while the other participant made his/her decision. After a few minutes, the experimenter re-entered the participant's cubicle and handed out a form filled out by hand, indicating that for that round, the other party had decided to return nothing to the participant.

Restoration Manipulation. As in Experiment 5.1, in the next phase of the experiment, the experimenter entered the room with another envelope and explained to the participants that “Since this was the first round of the game, the other party had been given the opportunity to reconsider his/her/their allocation and was given the option to give them extra coins”. In the compensation *and* apology condition, participants first received a note containing a hand-written apology. This apology now contained the principal components that are common ground in the apology literature (Schlenker & Darby, 1981; Goffman, 1971; Scher & Darley, 1997): (1) a statement of apologetic intent with an acceptance of responsibility “I’m sorry I didn’t give you any money” or “We’re sorry we didn’t give you any money”; (2) an expressions of remorse to show that the other party acknowledges the transgression and feels bad about it, “That was not nice of me/us”; (3) a promise of more trustworthy behavior in the future, “I/We promise it will not happen again.”.

Only after the experimenter made sure that the participants had read the apology, he handed out an envelope containing 15 coins (3 Euro). In the compensation only condition, participants only received the envelope containing 15 coins (3 Euro).

Trust behavior. Our primary dependent variable was trust behavior in the second round of the trust game. After the provision of the compensation (with or without apology), participants were again endowed with 10 coins of 0,20 € and played a second round of the trust game. As in Experiment 5.1, participants could choose to send any amount of coins between 0 and 10, providing us with a continuous measure of their willingness to trust again. Participants were also informed that any coins they decided not to transfer would be theirs to keep.

Self-reported trust. Apart from measuring trusting behavior, self-reported trust was also assessed using two items, based on Desmet et al. (2011). Participants therefore answered the following questions on 7-point Likert scales: (1) to what degree do you think the other/others will be trustworthy in future rounds? (2) to what degree do you think the other/others will take your interest into account in future rounds? Scores on these items correlated sufficiently ($r = .70, p < .001$) and were combined into a general measure of self-reported trust.

5.3.2 Results

Self-reported trust. A 2 (Interaction Partner: individual vs. group) x 2 (Restoration Type) between subjects ANOVA on the 3-item trust scale, revealed a significant main effect of Interaction partner, $F(1,82) = 4.30, p < .05, \eta^2 = .05$, and a main effect for restoration type, $F(1,82) = 4.53, p < .05, \eta^2 = .05$. Individuals ($M = 4.75, SD = 0.17$) were trusted more than groups ($M = 4.26, SD = 0.17$) and compensations and apologies ($M = 4.76, SD = 0.17$) fostered more trust than

compensations alone ($M = 4.26$, $SD = 0.16$). These main effects were however qualified by our predicted interaction effect, $F(1,82) = 4.53$, $p < .05$, $\eta^2 = .05$. Pairwise comparisons with Bonferroni adjustment for multiple comparisons revealed that whereas for victims interacting with a group receiving an apology in addition to compensation resulted in more trust ($M = 4.76$, $SD = 0.25$) than receiving a compensation alone ($M = 3.76$, $SD = 0.22$; $F(1,82) = 9.20$, $p < .01$, $\eta^2 = .10$), victims interacting with an individual did not report more trust when receiving an apology and a compensation ($M = 4.75$, $SD = 0.24$) compared to when they only received a compensation ($M = 4.75$, $SD = 0.23$; $F(1,82) < 1$, *ns*)

Trust behavior. A 2 (Interaction Partner: individual vs. group) x 2 (Restoration Type: compensation vs. compensation and apology) between subjects ANOVA on the amount money participants were willing to invest in the second round of the trust game, again revealed the predicted interaction effect, $F(1,82) = 5.08$, $p < .05$, $\eta^2 = .06$. The mean allocations can be found in Table 5.2.

Table 5.2: Mean allocation in round 2 as a function of Restoration Type and Interaction Partner for Experiment 5.2.

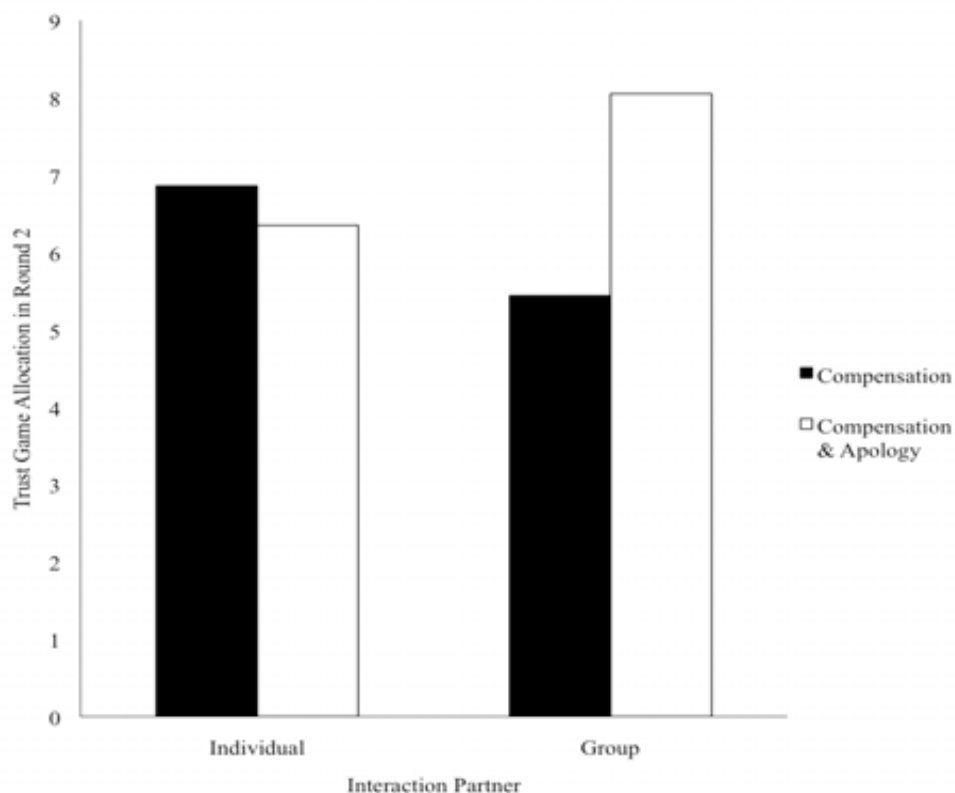
	<i>Compensation</i>	<i>Compensation and Apology</i>
Individual	6.86 (0.68) a	6.35 (0.72) a
Group	5.44 (0.64) a	8.05 (0.73) b

Note: Higher ratings indicate higher levels of trust restoration. Standard deviations are within parentheses. Means with different subscripts per row differ significantly from each other after pairwise comparisons (Bonferroni adjusted).

Closer examination of this effect (pairwise comparisons with Bonferroni adjustment) revealed that for victims who interacted with a group, receiving an

apology in addition to a compensation did result in higher levels of trust, $F(1,82) = 7.21$, $p < .01$, $\eta^2 = .08$, whereas for victims who were interacting with an individual, the provision of an apology did not have an additional effect on trust compared to the sole provision of a compensation, $F(1,82) < 1$, *ns*. The pattern is illustrated in Figure 5.2.

Figure 5.2. Mean Allocation in second Round of Trust Game as a Function of Restoration Type and Interaction Partner for Experiment 5.2.



Mediation analyses. As described above, the Interaction Partner x Restoration Type interaction significantly affected self-reported trust as well as

subsequent investments. To test whether self-reported trust mediated the Interaction Partner x Restoration Type interaction on investments, we conducted an additional ANOVA (see Baron & Kenny, 1986) including all previously described independent variables (and their interactions) with investments in the second round as dependent variable. Self-reported trust (centered) was added as an additional predictor in the final (fourth) step. This analysis showed that self-reported trust indeed significantly affected investments $F(1,79) = 4.81, p < .05, \eta^2 = .06$). Moreover, entering trust perceptions rendered the interactive effect of trustee identity and organization restoration type on investments non-significant $F(1,79) = 1.44, p = .23, \eta^2 = .02$).

As a formal test of mediation, a number of researchers (e.g., MacKinnon et al., 2002) have recommended to directly test the significance of the mediated effect. Therefore, we proceeded by using a bootstrap method, developed by Preacher and colleagues (2007), which allows for a formal test of *mediated moderation* (see Muller et al., 2005). Specifically, we estimated whether self-reported trust mediated the Interaction Partner x Restoration Type interaction on investments. In accordance with our predictions, Interaction Partner was treated as a moderator of the path from Restoration Type (the independent variable) to self-reported trust (the mediator), and not as a moderator of the path from self-reported trust to investments (the dependent variable). Our effect estimates are based on 20000 bootstrap samples.

This analysis clearly supported our hypothesis: the indirect effect of restoration type on investments, via trust perceptions, was marginally significantly larger than 0 when people played with a group ($z = 1.73$, one-sided $p = .042$), but not when the trustee was an individual ($z = -.10$, two-sided $p = .92$).

5.3.3 Discussion

The results of Experiment 5.2 replicated the findings of Experiment 5.1, but now using a more elaborate apology that also contained a promise of future trustworthy behavior. Again, we found that the provision of an apology in addition to a financial compensation can indeed restore trust more than a compensation alone, but only so when victims were interacting with a group rather than with an individual. Furthermore, the fact that victims' trust behavior in Experiment 5.2 was fully mediated by self reported trust towards their interaction partner further consolidate the findings of Experiment 5.1. Below we discuss the most important implications.

5.4 GENERAL DISCUSSION

Taken together, the present findings supported our hypothesis that following distributive harm, receiving an apology in addition to a financial compensation can have a more positive effect on trust compared to when only a compensation is provided, but particularly so when people are interacting with a group rather than with an individual. Across 2 studies and by using both self-reported and behavioral measures of trust, we found that when people were interacting with a group who violated their trust, receiving an apology and a compensation from this group fostered more trust than receiving a compensation alone. However, this addition of an apology did not result in more trust when people were interacting with an individual. The present findings contribute to the literature in several ways. Below we discuss the most important contributions.

A first contribution is that we examined the effectiveness of apologies when offered in addition to compensation. Previous research in trust repair has mainly looked at the effectiveness of apologies alone (Kim et al., 2004, 2006;

Tomlinson et al., 2004; Schweitzer et al., 2006; De Cremer & Desmet, in press). However, in exchange relations, where monetary resources have to be divided and trust violations most often result in a financial loss for one party, scholars have argued that apologies alone might not be sufficient as the outcome related concerns also need to be addressed by means of a compensation. Whereas research indeed showed that apologies are more effective in exchange relations when they are accompanied by a substantial financial compensation (Bottom et al., 2002), other studies found that trust also increases when compensation alone is provided (Desmet et al., 2011a). However, to date, no research examined whether providing an apology has an additional positive influence on trust when financial compensations are provided as well. Our findings show that the addition of an apology can indeed foster more trust than when a compensation alone is provided, but particularly so when victims are interacting with a group, rather than with an individual.

A second contribution is that we studied how victims react differently to reparations depending on whether they are interacting with an individual or a group. Most trust research has so far focused on how trust develops between individuals. Throughout our daily lives, however, we not only enter in exchange relations with other individuals, but also with groups. Unfortunately, to date, little is known about whether and how this difference in the entity we interact with affects our behavior towards this entity. Moreover, the scarce research that did look into this matter only seemed to be interested in how individuals interacting with individuals differ from groups interacting with groups and not from individuals interacting with groups (e.g. the discontinuity effect, see Schopler et al., 1991; Schopler & Insko, 1992). Given our observation that individuals who are interacting with a group become more sensitive to whether or not a compensation is accompanied by an apology, we demonstrated that one should be careful to

generalize behavior of individuals interacting with other individuals to situations in which individuals interact with groups.

5.4.1 Limitations and suggestions for future research

Although we expected the addition of an apology to be more effective when victims were interacting with a group rather than with an individual, an interesting observation was that receiving an apology in addition to compensation did not reveal any added effect when victims were interacting with an individual. Whereas this finding would suggest that individuals in an economic exchange with other individuals primarily care about the outcomes they receive and that therefore addressing relational concerns as well following distributive harm is irrelevant, we need to be cautious before making that conclusion too hastily: an important limitation is that we studied trust violations and restorations at an early stage in economic exchange relations.

Trust theorists agree that trust can change as relationships develop: whereas initially, actors in exchange relations particularly decide to trust based on the expectancy of receiving a specific, tangible benefit (i.e., calculus-based trust), repeated interaction can cause trust to evolve into a more *relational* trust, based on an identification with the other's motives and values (Lewicki & Bunker, 1996; Rousseau et al, 1998). Such identification-based trust is less likely to be only driven by concerns for immediate, tangible outcomes alone, as actors now also have concerns for the relationship itself. As a result, solely addressing distributive justice concerns following a trust violation may not be enough to restore identification-based trust, as more relation-oriented efforts (such as sincere and elaborate apologies) need to be undertaken as well. As we studied early exchange interactions between strangers, trust is more likely to be calculus-based than identification-based, which in turn may have inflated the value that victims

attached to a financial compensation and, likewise, may have decreased the additional effectiveness of apologies. Therefore, we need to be cautious before making the claim that apologies have no additional value for trust repair in exchange relations between individuals.

Finally, another limitation lies in the fact that the violation in our studies consisted of a single untrustworthy action that was quickly responded to by a restorative act. This particular set-up might have rendered participants interacting with an individual unsure about whether the violation was intentional or not, which in turn could have influenced why apologies did not reveal an additional positive effect in that condition. From previous research we know that the degree to which victims view a transgression as intentional can have an important impact on how restoration efforts are evaluated (Desmet et al., 2011a) and studies have shown that because apologies convey an admission of guilt, they are actually less effective when guilt has not yet been established (Kim et al., 2004). Although participants in the individual condition might have appreciated the compensation, the accompanying apology could have lost its additional value as it confirmed to the victims that the violation was intentional.

On the other hand, when participants are interacting with a group who has to make a joint decision, the possibility that a violation is unintentional may seem less likely. Research has shown that when harm is seen as intentional, providing an apology does become effective (Kim et al., 2004). Moreover, in the justice literature too it has been suggested that whereas financial compensations are an effective response in the case of unintentional distributive harm, following intentional harm, compensations alone do not suffice as other, relational concerns also need to be addressed, (e.g., by apologies, Darley & Pittman, 2001). This path of reasoning above could be an alternative explanation of our results. In that sense, one of the biggest limitations of our studies concerns the lack of process data that shows how different relational contexts (i.e. whether the interaction partner is a

group or an individual) activate outcome and relational concerns to a different extent. An interesting avenue for future research would therefore be to disentangle the process behind our observed effects and rule out other possible explanations.

5.4.2 Conclusion

In conclusion, our findings on the value of receiving an apology in addition to a financial compensation illustrate that even in relations in which the exchange of tangible outcomes lies at the core, trust repair is not only driven by instrumental, outcome-related concerns (i.e. the degree to which victims see their loss compensated). We showed that following distributive harm, addressing relational concerns too (by adding an apology to a compensation) can result in even more trust towards a transgressing interaction partner, although particularly so when the transgressing counterpart is a group rather than an individual. As such, our findings also stress the importance of considering characteristics of transgressors when evaluating restorative remedies, as trust repair is apparently not only determined by what the transgressor does, but also by who the transgressor is.

CHAPTER 6

6. GENERAL DISCUSSION

This dissertation started out with the question how trust can be repaired in economic exchange relations. Given that trust violations in these relations often inflict distributive harm to one party, I set out to investigate to what degree providing a financial compensation in response to this distributive harm can actually increase trust again and what factors influence the effectiveness of this compensation. In four chapters I have attempted to provide some empirical answers to those questions. In the present chapter, I will provide an overview of the findings of chapters 2-5 and discuss the most important implications and contributions of these findings. Finally, I will also explore some interesting avenues for future research.

6.1 SUMMARY OF THE EMPIRICAL FINDINGS

Chapter 2

The aim of Chapter 2 was to provide answers to some basic first questions regarding the effectiveness of financial compensations: can financial compensations increase trust again and is the size of the compensation relevant to this process? Is it enough for a transgressor to pay for the exact distributive harm that was caused or does the act of restoring trust requires more effort and might overcompensation foster more trust?

We argued that in economic exchange relations, in which interactions exist in the distribution of economic resources, agents decide to trust each other based on the expectancy of receiving a specific, tangible benefit (i.e., calculus-

based trust, Lewicki & Bunker, 1995; 1996; Lewicki et al., 2005) and that therefore receiving a financial compensation in response to distributive harm can indeed increase a victim's trust towards the transgressor again. Furthermore, given the importance of outcomes in shaping trust in exchange relations we reasoned that larger (over)compensations have the capacity to restore trust even further, but particularly so when victims are not sure whether the violation was intentional or not. Indeed, because information regarding one's intentions is a crucial element in trust (Rousseau et al., 1995; Boon & Holmes, 1991; Mayer et al., 1995; Deutsch, 1960; Mellinger, 1956), we hypothesized that when a transgression is deemed intentional, victims will be less inclined to use the favorability of the compensation (i.e. compensation size) to derive the intentions and trustworthiness of a transgressor. In that case, we would not expect an overcompensation to foster more trust than an exact compensation.

We tested these hypotheses across the four studies described in Chapter 2. Using repeated measures of victims' self-reported trust, Experiments 2.1 and 2.2 first of all confirmed that in the event of distributive harm, victims' trust towards the transgressor increases again when a transgressor provides a (substantial) financial compensation. Furthermore, Experiments 2.1 and 2.2 also confirmed our interaction hypothesis that trust can increase more by a slight overcompensation of the inflicted harm as compared to an exact or a partial compensation, but not if there was clear evidence that the violation was intentional: Whereas both Experiments 2.1 and 2.2 showed that compensation size had no effect when this (bad) intent became clear through the use of deception on behalf of the transgressor, Experiment 2.2 showed that compensation size also had no effect when the transgressor's intent became clear through a non deceptive statement indicating that the transgression was intentional.

Whereas Experiments 2.1 and 2.2 confirmed our interaction hypothesis using self-reported measures of trust, Experiment 2.3 was designed to examine the

behavioral repercussions of this interaction hypothesis. For that purpose, participants in Experiment 2.3 engaged in a similar game as in Experiment 2.2, but now instead of measuring self-reported trust after a compensation was provided, victims were given the choice to either continue or exit the relation with the transgressor. Again, we observed the same pattern of findings as in Experiment 2.1 and 2.2. Furthermore, by establishing the mediational process (intent attribution), Experiment 2.3 also provided more direct evidence that it is not the use of deception per se, but rather the attribution of intent that moderates the effect of compensation size.

Finally, in the last experiment of Chapter 2, Experiment 2.4, we tested whether the previously observed interaction effect continues to exist when the overcompensation is significantly larger. Also, Experiment 2.4 used a different paradigm in which trust was operationalized as investment decisions in a trust game. Again, we observed that whether a financial overcompensation fosters more trust than an exact compensation, depends on whether the violation was clearly intentional or not. Overcompensation can indeed create more trust than an exact compensation of the harm when there is still ambiguity about the others intent, but when there is clear evidence that the violation was intentional, overcompensations will not foster more trust. The findings of Chapter 2 therefore underline the importance of attributions of intent in shaping trust in exchange relations. When no other information is available regarding the transgressors intentions, victims indeed use the favorability of the compensation they receive to derive a transgressor's good intentions and trustworthiness. However, when prior information confirms that a violation is due to bad intent on behalf of the transgressor, this attribution of bad intent cancels out the effect of compensation size and overcompensation will not result in more trust than an exact compensation.

Chapter 3

In Chapter 2 we showed that the size of a financial compensation can sometimes matter for victims, in the sense that when a transgressor decides to provide an overcompensation of the harm, this can make the transgressor seem more trustworthy than when he or she provides an exact compensation (although the prior attribution of bad intent in the violation may hamper this effect). In Chapter 3, we decided to move a step further by investigating whether this effect of compensation size also depends on whether the compensation is provided voluntarily or not.

Whereas in Chapter 2 the decision to provide a compensation was introduced to victims as a voluntary choice made by the transgressor, in real-life conflict handling we can see that a common approach in exchange relations is to let a third party decide whether and what compensation is appropriate (cf. tort litigation). Whether a transgressor voluntarily provides a compensation or is being ordered to do so by a third party may however have a considerable impact on the degree to which a compensation and its size communicate good intentions and trustworthiness on behalf of the transgressor (Goranson & Berkowitz, 1966; Greenberg & Frisch, 1972; McCabe et al., 2003). Indeed, although actors in exchange relations have strong concerns for the outcome of specific transactions (cf. calculus-based trust), according to many views on trust, a necessary condition for an action to communicate trustworthiness is that this behaviour also reflects the person's intentions (Rousseau et al., 1998; Boon & Holmes, 1991; Mayer et al., 1995; Deutsch, 1960; Mellinger, 1956). Therefore, in contrast to outcome-based models in game theory, which would predict that actors would mainly care about the outcomes they receive (Bolton & Ockenfels, 2000; Fehr & Schmidt, 1999), we

hypothesized that victims' trust would only be sensitive to the size of a financial compensation when the compensation is provided voluntarily.

We tested this hypothesis in Experiment 3.1. In this experiment, participants played a trust game in which they encountered an interaction partner who violated their trust and subsequently provided a financial compensation, either voluntarily, or following an intervention by a third person. The results of Experiment 3.1 confirmed our hypothesis by showing that when deciding to trust again in a subsequent round of the trust game, only victims who received a voluntary compensation from the transgressor were sensitive to the size of this compensation, in the sense that larger compensations fostered more trust. When the compensation by the transgressor was enforced by a third-party, victims' decision to trust or not trust the transgressor was not affected by the size of the compensation they received.

The findings of Chapter 3 therefore complement the observations in Chapter 2, by also demonstrating that the process of trust repair in exchange relations is not simply determined by the favorability of the compensation that victims receive from the transgressor. Instead, the results of Chapter 3 again highlight the pivotal role of perceptions of intent in the process of shaping trust. Whereas Chapter 2 revealed that the prior attribution of bad intent in the violation impedes the effect of compensation size, Chapter 3 showed that it is not the size per se that drives the effect of compensation size on trust, but rather what the compensation (and its size) communicates about the transgressor's intentions.

Chapter 4

Whereas Chapters 2 and 3 examined how situational characteristics of the violation (clarity of intent) or the compensation (size, voluntariness) affected victims' trust, in Chapter 4, we decided to take a broader, interactionist approach

and also investigated how personality characteristics of the victim influence the process of trust repair. For this purpose, we deemed it would be an interesting first step to investigate how individual differences in people's tendency to forgive impact how financial compensations are perceived, processed and reacted upon by victims.

As forgiveness is typically viewed as an unconditional response that is given to another, without much regard for the offender's current intentions and actions (Fincham 2000; Enright et al., 1998), we hypothesized that people with a higher tendency to forgive (Brown 2003; Brown & Philips, 2005) would be less sensitive to whether or not a restoration attempt expresses repentance on behalf of the transgressor. Given that voluntary compensations are more likely to communicate offender's repentance than compensations that were enforced by a third party, Experiment 4.1 used a similar trust game paradigm as in Experiment 3.1, but now investigated how victims respond differently to compensations that are voluntary or forced, depending on whether they are generally more forgiving or not. In this experiment, we tested the mediational hypothesis that whereas receiving a voluntary compensation from the transgressor would communicate more repentance to victims than when this compensation was imposed, particularly people with a low tendency to forgive will be inclined to discount this repentance in their decision to trust again. For that purpose, Experiment 4.1 not only included behavioural and self-reported measures of trust, but also a measure of perceived repentance.

The results of Experiment 4.1 confirmed the mediational hypothesis and showed that whereas all victims perceived a transgressor as more repentant when he/she voluntarily provided a compensation (compared to when this compensation was imposed), people with a low tendency to forgive were more inclined to weigh this repentance in their decision to trust again than people with a high tendency to forgive. The findings of Chapter 4 therefore stress the value of taking a broader,

interactionist approach when studying trust repair, as personality characteristics of the victim also influence how situation-specific aspects of a restorative act are perceived, processed and reacted upon (i.e. the voluntariness of a compensation and the repentance it communicates).

Chapter 5

Whereas Chapter 2-4 studied how financial compensations alone affect victims' trust, in Chapter 5, we tried to answer the question whether providing a financial compensation is a sufficient strategy in response to distributive harm and whether offering an apology in addition to a compensation can create more trust than a compensation alone. So far, we argued that as trust in economic exchange relations is particularly driven by calculus-based trust and strong concern for the outcomes of a transaction, providing a financial compensation in response to distributive harm can be an effective strategy to restore trust. However, researchers have argued that apart from having strong outcome-related concerns, actors in economic exchange relations can also have concern for the relation itself (Curhan et al., 2006; De Cremer, 2002). As a violation of trust may then not only affect victims concern for outcomes, but also relational concerns, an interesting question is whether addressing both outcome-related and relational concerns following distributive harm is more effective than addressing outcome concerns alone.

As financial compensations particularly address outcome related concerns and apologies more explicitly speak to relational concerns, we argued that the addition of an apology will be more effective in situations in which relational concerns are more salient. Therefore we hypothesized that adding an apology to a compensation can indeed result in more trust, but particularly so when victims are interacting with a group rather than with an individual. In Experiment 5.1 and 5.2,

we tested this hypothesis within the context of trust game. By observing the hypothesized effect on self-reported and behavioural measures of trust, we found that addressing both instrumental and relational concerns, by providing a financial compensation *and* an apology, can have an additional positive impact on a victim's subsequent trust, but this effect however only emerged when people were interacting with a group, rather than with an individual.

Together with the other chapters, the findings of Chapter 5 therefore again illustrate how the efficiency of financial compensations in the process of trust repair in exchange relations is not simply determined by the material, financial value of the compensation itself. Whereas Chapters 2, 3 and 4 already demonstrated the importance of information about intentions in the violation and the compensation (intent attribution and voluntariness), the results of Chapter 5 again show how victims of distributive harm can also value aspects of the compensation that are less tangible, such as the addition of an apology. However, given that this latter effect depends on whether the victim interacts with a group or an individual, Chapter 5 also identifies another important factor in the process of trust repair, namely characteristics of the entity that a victim is interacting with. The findings of this dissertation therefore also illustrate how the process of trust repair in economic exchange relations is not only shaped by characteristics of the reparation (size, voluntariness, whether or not an apology is provided as well) but also by aspects of the violation (clarity of intentionality) and fundamental characteristics of the victim (dispositional tendency to forgive) and the transgressing party (group or individual).

6.2 IMPLICATIONS AND CONTRIBUTIONS

Throughout the empirical chapters of this dissertation, I highlighted the major implications and contributions of the findings of each chapter individually.

In addition, I now turn to discussing some general implications and contributions of my work.

The major contribution of my work is that I investigated the effectiveness of a repair tactic that is commonly used, yet did not receive much empirical attention so far. If we look at the the literature on trust repair in particular or on restoration processes in general, we can indeed see that scholars have mainly looked at the effectiveness of verbal repair strategies, such as statements of denial, the formulation of excuses or the provision of apologies and/or promises (Kim et al., 2004, 2006; Tomlinson et al., 2004; Schweitzer et al., 2006; Struthers et al., 2008). Whereas verbal repair strategies may indeed be effective in cases where a violation entails no material damage, in economic exchange relations, where interactions exist in the exchange of tangible resources and transgressions most often result in distributive harm for a victim, explanations, apologies or promises may not be enough to restore trust, as the tangible loss of resources also needs to be addressed (Bottom et al., 2002). Interestingly, if we look at how real-life conflicts in economic exchange relations are often dealt with, we can see that a common restorative tactic used in such situations indeed consists of a transgressor paying a sum of money to compensate a victim for his loss (see e.g. tort litigation).

Strangely enough, the high prevalence of financial compensations as a restorative response contrasts sharply with what is actually known about their effectiveness and the factors shaping this effectiveness. Based on the argument that actors who enter exchange relations have strong concerns for the outcomes they receive and given that the outcomes of transactions are therefore important in shaping trust in these relations (Lewicki et al., 2005; Rousseau et al., 1998), we hypothesized and found that financial compensations can indeed increase trust again and that the size of this compensation can influence its effectiveness. However, at the same time our findings also demonstrated that it is not only the

favorability of the outcome (the financial value of the compensation) that drives the process of trust repair, as immaterial aspects of the violation (intent attribution), the compensation (voluntariness, whether or not an apology is added) and fundamental characteristics of the victim (dispositional tendency to forgive) or the transgressor (whether or not the transgressor is a group or an individual) all play an important role in the restoration process. As such, I believe to have provided some valuable first steps in our understanding of the true value of financial compensations in economic exchange relations.

A second contribution of my research is that I investigated financial compensations in terms of the trust they foster. Whereas for a long time the literature on economic exchange relations was dominated by a view in which trust was considered as unnecessary or irrelevant to preserve cooperation, researchers now agree that trust is both beneficial and necessary in exchange relations, as it is an inexpensive and effective way to create long-term cooperation (Kramer, 1999; Lorenz, 1999; Zaheer & Venkatraman, 1995; Dyer & Chu, 2003; Bromiley & Cummings, 1996). Indeed, whereas scholars initially were convinced that the uncertainty and risk associated with the outcome dependencies in exchange relations could also be reduced by other mechanisms such as contracts and control mechanisms that reward cooperation and sanction defection (Williamson, 1993), research has proven that such instruments are actually only a weak substitute for trust, not only because contracts and control mechanisms are seldomly flawless (Sitkin & Roth, 1993; Sako & Helper, 1998), but also because they undermine cooperation that is voluntary and therefore pose a threat on long-term cooperation (Fehr & Gächter, 2002).

Given this importance of trust in exchange relations, I deemed that it is not only important to examine how trust can be created or strengthened in these relations, but also that it is imperative to investigate how it can be rebuilt following transgressions and breaches of cooperation. In the present dissertation, I

therefore focused on trust as a main dependent variable and evaluated restoration processes on different measures of trust. Not only did I assess trust as a snapshot-level of self-reported trusting intentions and trustworthiness perceptions (Chapter 4, 5), I also studied the effectiveness of compensations by looking at the *increase* in self-reported trust they foster (Chapter 2). Furthermore, I also weighed the effectiveness of financial compensations by observing their repercussions on behavior that is typically driven by trust, such as exit behavior or investment decisions in a trust game (Chapters 2, 3, 4, 5).

Finally, another contribution is that I studied trust repair by looking at the influence of different elements in the restoration process. Throughout the research presented in this dissertation, I did not limit my scope to investigating how characteristics of the compensation itself influence the effectiveness of financial compensations (size, voluntariness, whether or not an apology is included) but also studied how characteristics of the violation, the violator and the victim impact the restoration process. In chapter 2, I demonstrated how characteristics of the violation (clarity of intentions) determine how a compensation and its size is processed. In Chapter 4, I observed how personality characteristics of the victim confine to what degree a victim values a compensation that communicates repentance. Finally, Chapter 5 showed that not only the personality of the victim, but also fundamental characteristics of the transgressor play a significant role in the process of trust repair: whether people are interacting with a group or an individual determines to what extent a victim values relational reparation (apologies) in addition to a compensation.

As such, an important implication of my findings for decision makers in exchange relations is that it is important to consider that trust repair is a multi-faceted process that is influenced by different elements in the relation. Even in economic exchange relations, where the only interaction consists of resource

exchanges and violations have a clear, quantifiable distributive harm, trust repair is not simply determined by the financial value of a compensation. Contrary to popular belief in tort law, immaterial aspects such as intent in the violation, whether a compensation is imposed or voluntarily provided and whether or not an apology accompanies a compensation, all contribute to the actual value that victims attach to a compensation, as witnessed in their decision to trust again. And even more so, the process of trust repair also appears to depend on factors in the relation that actors do not have much control over, as our findings showed that victims can be guided by their dispositional tendency to forgive and even influenced by the simple fact whether their interaction partner is a group or an individual.

6.3 SUGGESTIONS FOR FUTURE RESEARCH

Whereas the goal of this dissertation was to provide much needed answers regarding the process of trust repair and the effectiveness of financial compensations in economic exchange relations, the findings reported in this dissertation also raise some interesting questions that definitely seem worthy of future research.

In the studies described in this dissertation I investigated trust violations and trust repair in exchange relations that had no prior interaction history. Participants entered in an economic exchange with a total stranger and violations happened early in the relation. An intriguing question then is how the trust repair process would look like in economic exchange relations that have a longer interaction history.

Trust theorists agree that trust changes as relationships develop: whereas initially, actors in exchange relations particularly decide to trust based on the expectancy of receiving a specific, tangible benefit (i.e., calculus-based trust),

repeated interaction can cause trust to evolve into a more relational trust, based on an identification with the other's motives and values (Lewicki & Bunker, 1995, 1996; Rousseau et al, 1998). As this evolved, identification-based trust places the relationship itself more central, trust at this level is less likely to be only driven by concerns for immediate, tangible outcomes alone. As a result, a violation in such relations may also cause relational damage that needs to be addressed. As such, one could wonder whether strategies that particularly address outcome-related concerns, such as financial compensations would exert similar effects in exchange relations that have developed this identity-based trust. Would financial compensations still increase trust then? Would the same factors influence their effectiveness?

Although at first glance one could think that a more relational focus would imply that financial compensations become less important to victims, this need not necessarily be the case. If the relation remains an economic exchange relation, in which interactions exist of resource exchanges (i.e. the language remains economic resources), it would still seem necessary to address a victim's distributive harm by means of a compensation. Even more so, it might as well also be the case that compensation size would still be important and overcompensation could for example foster more trust. However, the reason underlying their effectiveness may take a more relational shift, in the sense that victims read and attach more relational value to the compensation and its size.

On the other hand, when the form of the relationship has changed as well, and it is no longer economic resources alone that are exchanged, the sole provision of a financial compensation may not be enough for victims and might even trigger taboo trade-off reactions like "I don't believe you're trying to buy me off here" (Fiske & Tetlock, 1997). In that case it might be more effective for a transgressor to also undertake actions that more explicitly address a victim's thwarted relational

concerns. Extensive explanations and/or apologies that explicitly aim to repair the relationship itself may then become more effective.

Regardless of whether compensations (and their size) become more or less important, it is important to note that some of the processes that I found to be influencing the effectiveness of financial compensations may continue to exert a similar if not stronger influence in exchange relations that have a longer interaction history. For example, in Chapter 5, we observed that the addition of an apology to a compensation can sometimes foster more trust. As I already described that apologies can more explicitly address relational concerns, the effectiveness of adding elaborate apologies to a financial compensation is likely to increase as exchange relations grow and develop more identification-based trust.

Likewise, in Chapter 2 I argued that an important factor influencing trust repair is the attribution of intent in the violation. As the intentionality of a violation is a strong indicator of one's integrity and values, the attribution of intent is also likely to play a key role in the repair of identification-based trust, where the alignment of values and an internalization of each other's intentions and needs stands central (Lewicki & Bunker, 1995, 1996). Even more so, scholars have argued that violations of identification-based trust "cause the victim to primarily focus on the intent of the other's actions" (Lewicki et al., 2005, p.263). Furthermore, because violations of identification-based trust are likely to shake up the victim's perceived compatibility of values, scholars have argued that repair attempts in these relations need to be even more concentrated on restoring the benevolent intentions of the transgressor (Lewicki & Bunker, 1996; Lewicki et al., 2005). As a result, whether a transgressor provides a compensation voluntarily or not (Chapters 3, 4), may matter as much, if not even more in economic exchange relations that have a richer interaction history.

Although the reasoning above is, of course, speculative, future contributions could find a worthwhile undertaking in empirically investigating

how restoration processes look like in exchange relations with a longer interaction history. Their findings would, without a doubt, greatly improve our understanding of trust and the process of trust repair in economic exchange relations.

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SAMENVATTING (DUTCH SUMMARY)

Vertrouwen is een kostbaar maar kwetsbaar goed in onze interacties met anderen. Of we nu raad vragen aan een vriend of de weg aan een vreemdeling, zonder enig vertrouwen in anderen zouden we vaak niet ver komen. Vertrouwen is dan ook een belangrijke katalysator van onze interacties: zo zorgt het er niet alleen voor dat we überhaupt interacties aangaan met anderen, maar ook dat we ons welwillender en meer coöperatief opstellen eenmaal in deze interacties, wat vervolgens ook de kans vergroot dat deze anderen ook coöperatief zullen zijn naar ons toe .

Ook in economische relaties, waarin partijen goederen met een economische waarde uitwisselen, speelt vertrouwen een belangrijke rol. Kopen we bijvoorbeeld een tweedehands auto, dan moeten we de verkoper vaak vertrouwen dat er niet mee geknoeid is. Verder kijken we bijvoorbeeld ook niet altijd naar de houdbaarheidsdatum van een levensmiddel en lijken we de winkelier dus wel te vertrouwen dat we geen vervallen producten kopen. Ondanks het feit dat vertrouwen ook in economische relaties zo belangrijk is, leert de werkelijkheid ons echter dat vertrouwen in die relaties toch vaak geschonden wordt. Zo kopen klanten soms producten die niet aan de beloofde verwachtingen blijken te voldoen en worden bedrijven ook wel eens geconfronteerd met klanten die niet of te weinig betalen voor geleverde prestaties. Gezien dergelijke inbreuken niet alleen nefast kunnen zijn voor het verdere verloop van de relatie zelf, maar ook voor hoe andere, toekomstige relaties kunnen verlopen (door negatieve rereclame bvb.), is het belangrijk om te weten hoe in dergelijke gevallen vertrouwen terug hersteld kan worden en welke acties hierbij doeltreffend kunnen zijn.

Aangezien inbreuken in economische relaties meestal ook economische schade opleveren voor het slachtoffer, zien we dat een vaak gebruikte strategie erin bestaat dat de overtreder het slachtoffer vergoedt voor de geleden schade. Een

klant met klachten over een bepaald product wordt bijvoorbeeld dikwijls terugbetaald en krijgt hier soms nog iets voor bovenop; bedrijven die aangeklaagd worden proberen vaak een financiële schikking te treffen met het slachtoffer of kunnen door een rechtbank gedwongen worden tot het betalen van een schadevergoeding. Maar wat doen dergelijke financiële compensaties met het vertrouwen van een slachtoffer? Kunnen schadevergoedingen vertrouwen wel terug doen toenemen en zo ja, welke factoren bepalen dan hun doeltreffendheid? Dat zijn vragen waarop empirische antwoorden nog niet echt bestaan en dat zijn de kernvragen van dit doctoraat.

In het onderzoek beschreven in dit doctoraat zijn we de effecten van schadevergoedingen op vertrouwensherstel experimenteel nagegaan, hierbij gebruikmakend van paradigma's uit de speltheorie (dictator games en trust games). In deze experimenten werden proefpersonen geconfronteerd met een andere partij die hun vertrouwen beschadigde en hen economische schade berokkende, waarna zij een compensatie ontvingen. Gezien er zo weinig geweten is over wat compensaties nu met slachtoffers doen, vormen deze paradigma's een goed startpunt om te kijken naar de psychologische processen die compensaties in gang zetten en die zo vertrouwensherstel beïnvloeden. Hieronder schets ik de belangrijkste bevindingen uit de empirische hoofdstukken.

Hoofdstuk 2

Het doel van het eerste empirische hoofdstuk (Hoofdstuk 2) bestond erin antwoorden te zoeken op een aantal basisvragen over schadevergoedingen. Kunnen financiële compensaties vertrouwen verhogen na een inbreuk en heeft de grootte van een compensatie hier invloed op? Is het genoeg voor een overtreder om de geleden schade exact terug te betalen of kunnen overcompensaties vertrouwen zelfs meer doen stijgen?

In Hoofdstuk 2 zijn we dit nagegaan aan de hand van vier experimenten.

Hierbij argumenteerden we dat schadevergoedingen inderdaad vertrouwen terug kunnen doen stijgen, maar dat de vraag of een overcompensatie tot meer vertrouwen kan leiden zal afhangen van de manier waarop het vertrouwen geschonden werd. Meerbepaald stelden we dat vooral wanneer het onduidelijk is voor slachtoffers of de overtreding intentioneel was of niet, zij zich zullen laten leiden door de grootte van de schadevergoeding om te bepalen of de overtreder nog te vertrouwen is, in die zin dat een overcompensatie in dat geval vertrouwen meer kan doen stijgen dan een exacte compensatie. Echter, wanneer het voor slachtoffers duidelijk is dat de overtreding intentioneel gebeurde, zal de grootte van de compensatie minder uitmaken voor hen: overcompensatie zal in dat geval hun vertrouwen niet meer doen stijgen dan een exacte compensatie. Experiment 2.1 en 2.2 toonden dit vooropgestelde interactie-effect aan op de mate waarin vertrouwen stijgt na een compensatie. In Experiment 2.3 werd aangetoond hoe dit effect ook het gedrag van slachtoffers beïnvloedt (i.e. de mate waarin zij liever naar een andere interactiepartner op zoek gaan). Gebruikmakend van een ander paradigma (trust game), toonde Experiment 2.4 tenslotte aan dat dit effect niet alleen geldt voor een kleine overcompensatie, maar ook voor een grotere overcompensatie.

Hoofdstuk 3

Waar Hoofdstuk 2 aantoonde dat het effect van compensatiegrootte afhangt van de manier waarop vertrouwen geschonden werd, gaat hoofdstuk 3 een stapje verder door te onderzoeken of het effect van compensatiegrootte ook afhangt van de manier waarop de compensatie verkregen wordt. De compensaties gebruikt in Hoofdstuk 2 werden namelijk op vrijwillige basis verstrekt door de overtreder. In de werkelijkheid echter, zien we dat financiële compensaties vaak opgelegd worden door een derde partij, zoals in een rechtbank.

Aangezien de beslissing om iemand te vertrouwen een weging is die niet louter gebaseerd is op het gedrag van die persoon, maar ook op de intenties die men toeschrijft aan dit gedrag, argumenteerden we in Hoofdstuk 3 dat de mate waarin grotere schadevergoedingen ook meer vertrouwen opwekken ook kan afhangen van de manier waarop de compensatie verkregen wordt. Meerbepaald stelden we in Hoofdstuk 3 dat grotere compensaties alleen meer vertrouwen zullen opwekken wanneer de compensatie ook als vrijwillig gezien wordt. Wanneer een compensatie immers afgedwongen werd door een derde partij, zegt de grootte van de compensatie niets over de intenties van de overtreder en communiceren grotere compensaties niet noodzakelijk dat de andere het ook beter met het slachtoffer voor heeft. Gebruik makend van een trust game paradigma, bevestigde Experiment 3.1 inderdaad deze hypothese: enkel wanneer een overtreder vrijwillig compenseerde leidde een overcompensatie tot meer vertrouwen dan een exacte compensatie, en een exacte compensatie tot meer vertrouwen dan een gedeeltelijke compensatie. Wanneer de compensatie afgedwongen werd, werden slachtoffers niet beïnvloed door de grootte van de compensatie in hun vertrouwensgedrag.

De bevindingen van Hoofdstuk 3 sluiten daarmee ook aan bij de observaties in hoofdstuk 2, doordat ze opnieuw aantonen dat het proces van vertrouwensherstel in economische relaties niet simpelweg bepaald wordt door de grootte van de compensatie. De bevindingen uit Hoofdstuk 3 beklemtonen immers no eens de cruciale rol van percepties van intenties in het kweken van vertrouwen. Waar Hoofdstuk 2 blootlegde dat een voorafgaande attributie van intentionaliteit het effect van compensatiegrootte verhindert, laat Hoofdstuk 3 zien dat het niet de grootte van de compensatiegrootte perse is die meer of minder vertrouwen opwekt, maar eerder wat deze grootte zegt over de intenties van de overtreder.

Hoofdstuk 4

Terwijl Hoofdstuk 2 en 3 onderzochten hoe vertrouwensherstel beïnvloed

wordt door situationele kenmerken van de overtreding (duidelijkheid van intentionaliteit), of de compensatie (grootte, vrijwilligheid), neemt Hoofdstuk 4 een meer interactionistische benadering, door ook te kijken naar hoe persoonlijkheidskenmerken van het slachtoffer vertrouwensherstel kunnen beïnvloeden. Daarom leek het een interessante eerste stap om te onderzoeken hoe individuele verschillen in de algemene neiging tot vergeven een effect hebben op hoe financiële compensaties gepercipieerd worden en hoe er op gereageerd wordt.

Aangezien vergiffenis typisch iets is dat gegeven wordt en niet perse verdiend moet worden, argumenteerden we in Hoofdstuk 4 dat mensen met een grotere neiging tot vergeven ook minder gevoelig zullen zijn voor de mate waarin een herstpoging berouw uitdrukt. Gegeven dat een vrijwillige compensatie waarschijnlijk meer berouw communiceert dan een compensatie die afgedwongen werd door een derde, gingen we in Experiment 4.1 na of slachtoffers anders reageren op compensaties die vrijwillig of na afdwinging gegeven worden, naargelang deze slachtoffers meer of minder de algemene neiging hebben tot vergeven. Experiment 4.1 gebruikte daarom een gelijkaardig trust game paradigma als in Experiment 3.1 maar testte nu de mediatie-hypothese dat terwijl enerzijds slachtoffers allen geneigd zijn om een overtreder die vrijwillig compenseert als meer berouwvol te zien dan een overtreder die gedwongen werd tot compensatie, anderzijds slachtoffers met een hoge dispositionele neiging tot vergeven deze mate van berouw minder meenemen in hun beslissing om de ander te vertrouwen en zich opnieuw kwetsbaar op te stellen. De resultaten van Experiment 4.1 bevestigden deze hypothese en beklemtonen daarmee ook de waarde aan van een bredere, interactionistische benadering van het proces van vertrouwensherstel, doordat ze illustreren hoe persoonlijkheidskenmerken van het slachtoffer ook een effect hebben op hoe situatiespecifieke aspecten van compensaties vertrouwensherstel beïnvloeden.

Hoofdstuk 5

Waar in Hoofdstukken 1 tot en met 4 de klemtoon lag op de effectiviteit van compensaties alleen, ligt de focus van Hoofdstuk 5 op de vraag of compensaties alleen genoeg zijn. In Hoofdstuk 5 werd daarom onderzocht of compensaties tot meer vertrouwen leiden als ze ook gepaard gaan met expliciete verontschuldigen van de overtreder.

Gezien financiële compensaties vooral op de economische schade een antwoord bieden, en uitgebreide verontschuldigen meer expliciet tot relationele bezorgdheden spreken, redeneerden we in Hoofdstuk 5 dat de toevoeging van verontschuldigen vooral effectief zal zijn in situaties waarin relationele bezorgdheden meer uitgesproken zijn. Daarom vormden we in Hoofdstuk 5 de hypothese dat de toevoeging van verontschuldigen inderdaad tot meer vertrouwen kan leiden, maar vooral wanneer slachtoffers met een groep van mensen interageren, dan wanneer ze met een individu interageren. De resultaten van Experiment 5.1 en 5.2 bevestigden deze hypothese in de context van de trust game: enkel wanneer proefpersonen interageerden met een groep leidde de toevoeging van verontschuldigen tot meer vertrouwen dan het geven van een schadevergoeding alleen.

Samen met de andere hoofdstukken illustreren de bevindingen van Hoofdstuk 5 dus opnieuw dat de doeltreffendheid van financiële compensaties in vertrouwensherstel in economische uitwisselingsrelaties niet simpelweg afhangt van de materiële, financiële waarde van de compensatie zelf. Waar Hoofdstuk 2, 3 en 4 al het belang onderstreepten van informatie over intenties in de inbreuk (duidelijkheid van intentionaliteit) en in de compensatie (vrijwilligheid), tonen de resultaten van Hoofdstuk 5 opnieuw aan dat slachtoffers van economische schade ook andere, niet-materiële aspecten van het herstelproces waarderen, namelijk of een compensatie al dan niet gepaard gaat met verontschuldigen. Echter, omdat

dit laatste fenomeen afhangt van of het slachtoffer met een groep of met een individu interageert, legt Hoofdstuk 5 ook een andere belangrijke factor in het proces van vertrouwensherstel bloot, namelijk kenmerken van de entiteit waarmee het slachtoffer interageert. De bevindingen van dit doctoraat illustreren daarom ook hoe het proces van vertrouwensherstel in economische relaties niet alleen gestuurd wordt door karakteristieken van de herstelpoging (compensatiegrootte, vrijwilligheid, of er al dan niet verontschuldiging bij gegeven worden), maar ook door eigenschappen van de inbreuk (duidelijkheid van intentionaliteit) en fundamentele kenmerken van het slachtoffer (dispositionele neiging tot vergeven) en de overtreder (of deze een groep of een individu is).

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BIOGRAPHICAL NOTE



Pieter Desmet was born on May 26, 1982 in Bruges, Belgium but grew up in the delightful village of Retie in the Antwerp Kempen. After having received his secondary education at the St.-Jozefcollege in Turnhout, Pieter studied Applied Economics at the University of Antwerp, where he received his diploma of Candidate (BA) in 2002. Becoming more interested in the psychological underpinnings of economic behavior, Pieter then studied psychology at the Catholic University of Leuven, where in 2006 he obtained a master's degree in theoretical psychology with a specialization in social and differential psychology. Under the supervision of David de Cremer & Eric van Dijk, Pieter subsequently conducted his doctoral research on the psychology of financial compensations at Tilburg University and Rotterdam School of Management. His work has been published or is forthcoming in international journals including *Organizational Behavior and Human Decision Processes*, *Journal of Business Ethics* and *Personality and Individual Differences*. Pieter currently works for the Erasmus School of Law, where he is postdoctoral researcher in behavioral approaches to contract and tort at the Rotterdam Institute of Law and Economics (RILE).

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IN MONEY WE TRUST?**TRUST REPAIR AND THE PSYCHOLOGY OF FINANCIAL COMPENSATIONS**

Trust is a valuable resource that facilitates and smoothes interactions in all kinds of relations that we engage in. Whether we ask a stranger for directions or advice from a close friend, we would often not get far if we did not trust others. In economic exchange relations too, where agents exchange resources that have a tangible economic value, trust has proven to be particularly useful as it fosters cooperation while at the same time reducing the need for expenditures on control and monitoring. Questions like "What are the benefits of trust?" and "How can trust be built effectively?" have already found their answer in the literature. However, on how to deal with lowered trust after it was violated, answers still tend to be empirically unclear.

Given that transgressions in economic relations often result in distributive harm for the victim (i.e. loss of economic resources), a common approach in exchange relations consists of the transgressor providing a financial compensation to the victim: if a customer has complaints about a product, he is reimbursed; when a company is being sued, it often tries to make a financial settlement with the victims. Strangely enough, the high prevalence of financial compensations as a restorative response contrasts sharply with how little is known about their effectiveness. Can financial compensations actually increase trust again and what are the factors that determine their effectiveness?

This dissertation aims to provide some first, much needed empirical answers regarding the effectiveness of financial compensations in restoring trust. In this venture, I will not only show how aspects of the compensation itself determine effectiveness (size, voluntariness, whether or not an apology is provided in addition), but also how specific characteristics of the violation, the victim and the transgressor impact victims' reactions to a compensation.

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