

**HEC MONTRÉAL**  
École affiliée à l'Université de Montréal

**The Differentiated Effects of Direct versus Indirect Revenge Behaviors on  
Consumers' Subsequent Desire for Revenge**

**par  
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Thèse présentée en vue de l'obtention du grade de Ph.D en administration  
(option Marketing)

Décembre 2017

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Cette thèse intitulée :

**The Differentiated Effects of Direct versus Indirect Revenge Behaviors  
on Consumers' Subsequent Desire for Revenge**

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## Résumé

Cette dissertation contient trois essais et a but d'étudier les comportements de vengeance (CV) dans un contexte consommateurs. Les recherches de précédent comptent plusieurs états sociaux et individuels, qui justifient le désir de l'individu de chercher la vengeance. Au niveau individuel, les actes de vengeance tant servent des buts interpersonnels et intrapersonnel. Cette recherche se concentre sur la fonction intrapersonnelle de vengeance, pour diminuer les émotions négatives du vengeur. Tandis qu'il y a le consensus des fonctions interpersonnelles de vengeance (par exemple la prévention de n'importe quels dégâts futurs), sa fonction d'intrapersonnel a reçu un soutien mixte.

En général, il y a deux sortes de recherches sur le sujet de l'effet de CV sur le désir ultérieur de vengeance. D'une part, un grand nombre de recherches affirme qu'une personne se sent mieux après se vengeant (c'est-à-dire l'effet de la "vengeance est sucré"). D'autre part, il y a l'évidence toujours croissante qui indique que les individus se sentent finalement plus mauvais après qu'ils se vengeant (c'est-à-dire l'effet de la "vengeance est semblable à l'eau salée pour la soif"). La contribution principale de cette recherche est proposer un cadre pour réconcilier ces deux écoles de pensée rivales et enquêter sur le processus qui sous-tend cet effet.

Essai 1 discute les effets différenciés du direct contre CV indirect sur le désir ultérieur de vengeance des clients dans un réglage longitudinal. Aussi il examine le rôle médiateur de la rumination dans ce processus. Essai 2 cherche à reconfirmer les

résultats d'Essai 1 dans un contexte expérimental. Cependant, la contribution principale d'Essai 2 est d'étudier le rôle critique de la restauration de justice et d'affecter la médiation de l'effet des CV sur le désir ultérieur de vengeance. Essai 3 étudie la vengeance des clients du point de vue physiologique du consommateur.

En employant des mesures physiologiques (c'est-à-dire l'expression du visage), cet essai examine l'effet de la frénésie des RB et le rôle de la restauration de la justice sur les affects des consommateurs et le désir de vengeance subséquent.

**Mots-clés:** vengeance, comportements de vengeance, direct versus indirect, rumination, restauration de la justice, effet négatif, effet positif, médiation, expression de visage.

**Méthodes de recherche:** études longitudinales, l'enquête sur le terrain, expérimentent, expérience basé sur scénario, facereader, des mesures physiologiques.

## **Abstract**

This three-essay dissertation aims to study revenge behaviors (RBs) in a consumer context. Past research counts several societal and individual functions that justify people's desire to seek revenge. At individual level, revenge acts serve both inter- and intra-personal purposes. This research focuses on the intra-personal function of revenge, namely diminishing avenger's negative emotions. While there is consensus about the inter-personal functions of revenge (e.g., preventing future damage), its intra-personal function has received mixed support.

In general, there are two streams of research studying the effect of RBs on subsequent desire for revenge. On one hand, a great body of extant research asserts that people feel better after taking revenge (i.e., a "revenge is sweet" effect). On the other hand, there is mounting evidence that shows people end up feeling worse after taking revenge (i.e., a "revenge is like salt water on thirst" effect). The main contribution of this research is proposing a framework to reconcile these two rival schools of thought and investigating the process that underlies this effect.

Essay 1 studies the differentiated effects of direct versus indirect RBs on customers' subsequent desire for revenge in a longitudinal setting. It also examines mediating role of rumination in this process. Essay 2 seeks to reconfirm the findings of Essay 1 in an experimental setting. However, the main contribution of Essay 2 is investigating the critical role of justice restoration and affect in mediating the effect of RBs on subsequent desire for revenge. Essay 3 studies customer revenge from a consumer

physiological perspective. By employing physiological measures (i.e., facial expression), this essay looks at the effect of the directness of RBs and role of justice restoration on consumers' affects and subsequent desire for revenge.

**Keywords:** revenge, revenge behaviors, direct versus indirect, rumination, justice restoration, negative affect, positive affect, mediation, facial expression

**Research methods:** Longitudinal studies, field study, experiment, scenario-based experiment, facereader, physiological measures

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## List of acronyms

Revenge behavior

RB



*This thesis is dedicated to my husband, Mahdi, who has been a constant source of love, encouragement, support, and patience during the challenges of graduate school and life. I am truly grateful to have you in my life. This work is also dedicated to my parents, Mina and Majid, who always loved me unconditionally and prayed for my success.*

*And to my son, Amirali, whose arrival has filled our lives full of joy and happiness!*



## **Acknowledgements**

Firstly, I would like to express my sincere gratitude to my advisors Prof. Yany Grégoire and Prof. Sylvain Sénécal for the continuous support of my Ph.D study and related research. I would like to specially thank Yany for his patience, motivation, and immense knowledge. His guidance helped me in all the time of research and writing of this thesis. I could not have imagined having a better advisor and mentor for my Ph.D study. I would like to extend my thanks to Sylvain who believed in my potential and helped me start my journey at HEC Montreal.

Besides my advisors, I would like to extend my sincerest thanks and appreciation to Prof. Sandra Laporte, whose attitude and encouragement supported me in this journey. She, as a mother of three, is my role model who is a successful person in her life and work. Gratitude is also extended to Prof. Denis Larocque for his insightful comments while analyzing the data.





## Introduction

Past research in marketing has shown that there is a number of motives that trigger consumers to engage in RBs against firms, such as perceived betrayal (Grégoire and Fisher 2008), perceived greed (Grégoire, Laufer, and Tripp 2010), and perceived injustice (Bechwati and Morrin 2003). These motives generate a *desire for revenge* that is defined as a felt urge to punish and get even with a firm for the inconvenience it has caused (Grégoire and Fisher 2006).

Although antecedents of desire for revenge have been studied extensively, less attention has been paid to the consequences of consumer revenge and its effect on consumers' well-being. In an interesting book chapter, Gollwitzer (2009) discusses five individual functions for revenge. He points out that revenge (1) balances gains and losses between an offender and a victim, (2) redistributes power, (3) restores the avenger's self-esteem, (4) prevents future damage, and (5) diminishes the avenger's negative emotions. All these functions, but the last one, are inter-personal; they convey the message "you did something wrong to me" from the avenger to the offender. The last individual function of revenge (i.e., diminishing avenger's negative emotions), however, is intra-personal. Inter-personal functions of revenge concern regulating the relationship between individuals, whereas intra-personal function of revenge focuses on one's own mood regulation.

While there is consensus about the inter-personal functions of revenge, its intra-personal function has received mixed support. On one hand, there is evidence supporting the popular adage "revenge is sweet" (Bechwati and Morrin 2003; Gollwitzer and Denzler 2009; Gollwitzer, Meder, and Schmitt 2011; de Quervain et al. 2004). Research confirms that despite the costs and risks

associated with revenge, consumers can see value in revenge because it provides them with an emotional satisfaction that compensates in part for their objective loss (Bechwati and Morrin 2003; de Quervain et al. 2004; Strobel et al. 2011).

On the other hand, several studies in social psychology find that revenge makes people feel more negatively about the event (Carlsmith, Wilson, and Gilbert 2008; Yoshimura 2007). Although people initially believe that revenge makes them feel better, they appear to make an error of prediction. Enacting revenge ultimately makes them feel worse because they keep ruminating about the event and it prevents them to deal with the situation in a more constructive manner (Carlsmith et al. 2008). These findings confirm Walter Weckler quote saying “revenge has no more quenching effect on emotions than salt water has on thirst.”

Given these inconclusive findings, the proposed dissertation focuses on the intra-personal function of revenge (i.e., diminishing avenger’s negative emotions) and the underlying mechanisms that mediate this effect. In particular, this dissertation tackles a series of questions about the effect of the directness of RBs on subsequent desire for revenge, and it investigates the role of possible mediators; such as rumination, justice restoration, negative affect, and positive affect. Besides studying revenge in a marketing context using conventional methods, the proposed dissertation also investigates this concept using physiological measures.

## **Essay 1: A Preliminary Field Study**

Essay 1 investigates how initial revenge acts affect one’s subsequent desire for revenge in a longitudinal setting. As a key contribution, Essay 1 studies RBs in consumer context and investigates whether initial RBs after an online complaint i) quench a desire for revenge over time

(a “revenge is sweet” effect), or ii) amplify a desire for revenge over time (a “salt water” effect). In other words, Essay 1 attempts to answer which effect of RBs on subsequent desire for revenge prevails, the quenching or the amplifying effect?

To answer this question, RBs are divided into two types: direct RBs (i.e., *marketplace aggression* and *vindictive complaining*) versus indirect RBs (i.e., *negative WOM* and *third-party complaining for legal sources*). Based on the different nature of these behaviors, we predict that direct RBs have a quenching effect whereas indirect RBs have an amplifying effect.

Using a longitudinal study, we find support for our prediction and discover that different type of RB has diverse effects on one’s subsequent desire for revenge. In particular, we find that the decrease in subsequent desire for revenge should be more pronounced for customers who strongly engage in direct RBs, compared to those who weakly use these behaviors. This may happen because direct confrontation creates the impression that the firm has received what it deserves (Gollwitzer and Bushman 2012), and customers believe they got even with the firm. Therefore, they ruminate less about the firm’s failure.

However, indirect RBs partially comply with our prediction. Although, we do not find an amplifying effect of indirect revenge, our findings show that this kind of behaviors have a sustaining effect. Indirect RBs do not offer the opportunity to achieve the typical outcomes associated with revenge. As a result, customers’ desire for revenge is not “quenched” as it is the case in direct revenge. However, although a desire for revenge decreases over time — which is a typical result found in the revenge literature (Grégoire, Tripp, and Legoux 2009) — the decrease in subsequent desire for revenge should be milder for customers who strongly engage in indirect

RBs, compared to customers who weakly use these RBs. Thus, the findings show that indirect revenge resembles the metaphor of the effect of salt water on thirst.

The second contribution of Essay 1 is to examine the role of rumination as a process variable that mediates the effect of the RBs on one's subsequent desire for revenge. The results show that indirect RBs (i.e., negative word-of-mouth and third-party complaining for legal sources) increase desire for revenge over time through rumination. However, for direct RBs, marketplace aggression supports our prediction; this direct act decreases desire for revenge over time through rumination. However, in contrast to our expectation, vindictive complaining does not have a significant indirect effect on subsequent desire for revenge through rumination.

In sum, Essay 1 offers preliminary support for differentiated effects of direct revenge versus indirect revenge on subsequent desire for revenge. We find that different RBs influence subsequent desire for revenge in different ways and rumination plays a role in mediating this effect. In the longitudinal setting of Essay 1, all constructs are measured rather than being manipulated; therefore, we cannot draw causal inferences regarding the effect of initial RBs on subsequent desire for revenge. Essay 2 addresses the limitations of Essay 1 by taking an experimental approach.

## **Essay 2: A Series of Experiments and Confirmation of the Processes at Play**

In order to address the limitations of Essay 1, we take an experimental approach in Essay 2 using two studies. Study 1 examines the effect of the directness of RBs on one's subsequent desire for revenge using a scenario-based experiment on Mturk. The results of the experiment provide support for our theory that different RBs have diverse effects on one's subsequent desire for revenge. More specifically, we find that compared to consumers who engage in direct RBs,

those who engage in indirect RBs end up feeling worse and experiencing stronger desire for revenge.

The second contribution of Study 1 is to unveil the process at play, which underlies the effects of the RBs on the desire for revenge. In the scenario-based experiment, in addition to rumination which has been investigated in Essay 1, we examine the mediating role of perceived justice restoration as a strong motivator leading to desire for revenge in exchange relationships (i.e., an inter-personal function of revenge). The mediation analyses show that justice restoration is an effective element — both by itself and coupled with rumination — in determining one’s subsequent desire for revenge. In other words, we find that after initial RBs, customers’ subsequent desire for revenge partially depends on the extent to which they perceive that justice has been restored. This perception in turn affects the level of rumination experienced by the participant.

Study 2 replicates the findings of Study 1 by using two other relevant dependent variables—positive affect and negative affect (Carlsmith, Wilson, and Gilbert 2008)—that capture how well customers feel after enacting revenge. Besides, it focuses on the justice restoration as the key intervening variable. It also controls for the motivation to protect other consumers as an alternative mechanism to explain the effect of RBs on customers’ subsequent responses. In addition, this study examines the longitudinal unfolding of the process at play by measuring the key dependent variables (i.e., affect and desire for revenge) before and after the manipulation of RBs.

Study 2 reconfirms that direct and indirect RBs have different impacts on customers’ responses—in terms of affect and desire for revenge. It finds that customers who engage in direct RBs feel less negative and more positive after taking revenge, whereas indirect RBs result in less

variation of these affects. It also finds that the sequence of justice restoration → negative affect is the key mechanism in explaining why direct and indirect RBs have different effects on the subsequent desire for revenge. This study finds no evidence that the effect of RBs on subsequent desire for revenge is explained by “protecting other customers”.

### **Essay 3: The Effect of the Directness of Revenge Behaviors on Subsequent Desire for Revenge: A Physiological Perspective**

In Essay 3, we study customers’ revenge from physiological perspective. The purpose of Essay 3 is to test our logic with a stronger experimental design involving physiological responses. In addition, Essay 3 tests the effectiveness of providing a recovery and it helps us to further understand the mechanism involving justice restoration. Moreover, the design of Essay 3 provides the opportunity of creating a “real” service failure. A real service failure helps us to validate our theory with more confidence (see Heidenreich et al. 2015 and Roehm and Brady 2007 for recent examples). Essay 3 creates a real service failure in which we manipulated the directness of RB and justice restoration. It also capitalizes on recent methodological advances by measuring affect with a facial emotion recognition software.

The results confirm and extend the findings of the previous studies in a real service failure episode, where negative affect was measured using a physiological approach. By manipulating justice restoration in this study, we show that direct revenge leads to less negative feelings and a decrease in subsequent desire for revenge only when justice is restored through a corrected compensation for the participant. The absence of justice restoration in the direct revenge condition leads to the worst emotional state. However, justice restoration does not affect participants who

enacted revenge indirectly in the same way. For these customers, the offered compensation had no soothing effect on their negative affect and subsequent desire for revenge.

## **Concluding Remarks**

The three essays constituting this dissertation aim to study the intra-personal function of consumer revenge using a multi-method approach. The first two essays study this concept in a service failure episode using conventional methods (e.g., questionnaire). However, Essay 3 uses physiological measures in a real setting to provide a strong support for the findings of previous studies. The evidence demonstrates that subsequent emotional states and desire for revenge are dependent on the way revenge is enacted (specifically the *directness* of the RBs) and the way these behaviors are associated with justice restoration and rumination.

We find that “revenge is sweet” when customers take direct revenge and “revenge is like salt water” if they engage in indirect RBs. We show that justice restoration is the key variable explaining this effect; however, rumination and negative affect, too, play role in mediating the effect the RBs on subsequent desire for revenge.

## References

- Bechwati, Nada Nasr and Maureen Morrin (2003), "Outraged consumers: Getting even at the expense of getting a good deal," *Journal of Consumer Psychology*, 13 (4), 440–53.
- Carlsmith, Kevin M., Timothy Wilson, and Daniel Gilbert (2008), "The paradoxical consequences of revenge," *Journal of Personality and Social Psychology*, 95 (6), 1316–24.
- Gollwitzer, Mario (2009), "Justice and revenge," in *Social Psychology of Punishment of Crime*, S. Bieneck, M. E. Oswald, and J. Hupfeld-Heinemann, eds., Hoboken, NJ: Wiley.
- and Brad J. Bushman (2012), "Do victims of injustice punish to improve their mood?," *Social Psychological and Personality Science*, 3 (5), 572–80.
- and Markus Denzler (2009), "What makes revenge sweet: Seeing the offender suffer or delivering a message?," *Journal of Experimental Social Psychology*, 45 (4), 840–44.
- , Milena Meder, and Manfred Schmitt (2011), "What gives victims satisfaction when they seek revenge?," *European Journal of Social Psychology*, 41 (3), 364–374.
- Grégoire, Yany and Robert J. Fisher (2006), "The effects of relationship quality on customer retaliation," *Marketing Letters*, 17 (1), 31–46.
- and ——— (2008), "Customer betrayal and retaliation: When your best customers become your worst enemies," *Journal of the Academy of Marketing Science*, 36 (2), 247–261.
- , Daniel Laufer, and Thomas M. Tripp (2010), "A comprehensive model of customer direct and indirect revenge: Understanding the effects of perceived greed and customer power," *Journal of the Academy of Marketing Science*, 38 (6), 738–758.
- , Thomas M. Tripp, and Renaud Legoux (2009), "When customer love turns into lasting hate: The effects of relationship strength and time on customer revenge and avoidance," *Journal of Marketing*, 73 (6), 18–32.

- Heidenreich, Sven, Kristina Wittkowski, Matthias Handrich, and Tomas Falk (2015), “The dark side of customer co-creation: exploring the consequences of failed co-created services,” *Journal of the Academy of Marketing Science*, 43 (3), 279–96.
- de Quervain, Dominique J-F, Urs Fischbacher, Valerie Treyer, Melanie Schellhammer, Ulrich Schnyder, Alfred Buck, and Ernst Fehr (2004), “The neural basis of altruistic punishment,” *Science*, 305 (5688), 1254–58.
- Roehm, Michelle L. and Michael K. Brady (2007), “Consumer responses to performance failures by high-equity brands,” *Journal of Consumer Research*, 34 (4), 537–45.
- Strobel, Alexander, Jan Zimmermann, Anja Schmitz, Martin Reuter, Stefanie Lis, Sabine Windmann, and Peter Kirsch (2011), “Beyond revenge: Neural and genetic bases of altruistic punishment,” *NeuroImage*, 54 (1), 671–80.
- Yoshimura, Stephen (2007), “Goals and emotional outcomes of revenge activities in interpersonal relationships,” *Journal of Social and Personal Relationships*, 24 (1), 87–98.

## **Chapter 1**

# **Is Revenge Sweet? The Differentiated Effects of Direct versus Indirect Revenge Behaviors on Consumers' Subsequent Desire for Revenge: A Longitudinal Approach**

## **Abstract**

Is revenge always sweet? Or is it like salt water on thirst? Essay 1 studies the differentiated effects of RBs on customers' subsequent desire for revenge in a longitudinal setting. The present research investigates four different RBs of real customers and categorize them into direct versus indirect revenge. It then examines how directness of RBs affects customers' subsequent desire for revenge.

The findings of Essay 1 show that direct RBs quench subsequent desire for revenge; while indirect RBs sustain it. In essence, Essay 1 provides evidence that customers' subsequent desire for revenge depends on the way they take revenge against firms. Essay 1 also examines the role of rumination in this process and it finds that direct (indirect) revenge results in less (more) rumination which leads to less (more) subsequent desire for revenge.

**Keywords:** Direct revenge, indirect revenge, RBs, longitudinal, direct versus indirect, rumination, mediation, field study.

## 1.1 Introduction

Consumer revenge is a topic that has achieved popularity, given its potential negative consequences on firms, especially in an online context. Because of the advent of the Internet and the social media, consumers have gained in power and they have now more avenues to get revenge against service firms (Ward and Ostrom 2006).

Extant research, in social psychology and marketing contexts, has principally examined the antecedents of revenge and desire for revenge (Grégoire, Laufer, and Tripp 2010; Grégoire, Tripp, and Legoux 2009; McColl-Kennedy et al. 2009; McCullough et al. 2001; McCullough, Kurzban, and Tabak 2011). Particularly, research in marketing has focused on factors inducing customers' desire for revenge against service firms. These factors, including perceived betrayal (Grégoire and Fisher 2008), perceived greed (Grégoire, Laufer, and Tripp 2010), and perceived injustice (Bechwati and Morrin 2003) trigger customers to take actions against firms in order to balance their relationship.

Although antecedents of desire for revenge have been studied extensively, less attention has been paid to the consequences of customer revenge and its effect on customers' well-being. In sum, past research emphasizes the psychological process leading to revenge, which has typically been conceptualized as the final dependent variable. The current essay focuses instead on revenge behaviors (RBs) as starting points and studies their effects on customers' subsequent desire for revenge. Specifically, we answer the following: How do customers feel after enacting revenge? Better or worse? To put it differently, do RBs quench customers' desire for revenge over time? Or do they amplify this desire?

To answer this question, we should first consider functionality of revenge. It must be remembered that from an outcome-oriented perspective, revenge acts appear difficult to justify (Elster 1990); because in interpersonal relationships, seeking revenge against the offender does not heal the harm done to the avenger. However, one can find countless examples where the avengers spend a great amount of time, money, or energy to take revenge while they obtain no gain in return. Nevertheless, revenge has several individual and societal functions which provide a good explanation for its occurrence. As societal function, it is used for power regulation and deterrence (Chagnon 1988a). At individual level, Gollwitzer (2009) mentions that revenge (1) balances gains and losses between the offender and the victim, (2) balances power distribution, (3) restores avenger's self-esteem, (4) prevents future damage of the offender, and (5) diminishes avenger's negative emotions. At this level, all the functions, except the last one, are inter-personal; they convey the message "you did something wrong to me" from the avenger to the offender. The last individual function of revenge (i.e., mood regulation), however, is intra-personal. Although feeling better is not the ultimate goal of taking revenge (Gollwitzer and Bushman 2012), under some conditions venting negative emotions via enacting revenge does lead to an improvement in one's mood (Gollwitzer and Denzler 2009).

While, there is consensus about inter-personal functions of revenge, its intra-personal function (i.e., diminishing one's negative emotions) has received mixed support. On one hand, there is one popular adage saying, "revenge is sweet." Intuitively, it is sensible. Despite the costs and risks associated with revenge, consumers can see value in this response because it provides them an emotional satisfaction that compensates in part for their objective loss (Bechwati and Morrin 2003). Consistent with this view, many findings support the notion that venting negative

emotions and seeking revenge is satisfying and make people feel better under some conditions (Gollwitzer and Denzler 2009; Gollwitzer, Meder, and Schmitt 2011).

On the other hand, confirming Walter Weckler quote saying “revenge has no more quenching effect on emotions than salt water has on thirst,” several studies in social psychology find that revenge makes people feel more negatively about the event (Carlsmith, Wilson, and Gilbert 2008; Yoshimura 2007). Although people initially believe that revenge would make them feel better, they appear to make an error of prediction. Enacting revenge ultimately makes them feel worse because they keep ruminating about the event and it prevents them to deal with the situation in a more constructive manner (Carlsmith et al. 2008).

So, which of the quenching or amplifying effect does prevail? As illustrated by these conflicting results, the findings about the effects of revenge are far to be conclusive. In this essay, we dive into this topic, and examine this controversial issue in a consumer context. Specifically, the general purpose of our research is to examine whether initial RBs after an online complaint i) quench a desire for revenge over time (a “revenge is sweet” effect), or ii) amplify a desire for revenge over time (a “salted water” effect). This question is important; since it would allow us to understand the effects of revenge on customers’ welfare, and to guide service firms in the development of their recovery policies to promote the interest of both service firms and customers.

We contribute to this issue by showing that the evolution of a desire for revenge depends on the form of revenge, direct versus indirect, that is taken against the firm. When consumers take revenge *directly* against the firm, it has a quenching effect on their desire for revenge over time. In this instance, revenge becomes “sweet.” However, initial acts of *indirect* revenge have the opposite effect. Although, they do not amplify the desire for revenge, they sustain it over a longer

period time. In other words, indirect revenge has no quenching effect on a desire for revenge, which is similar to the metaphor of the salt water. The reconciliation of these two schools of thought is main contribution of Essay 1.

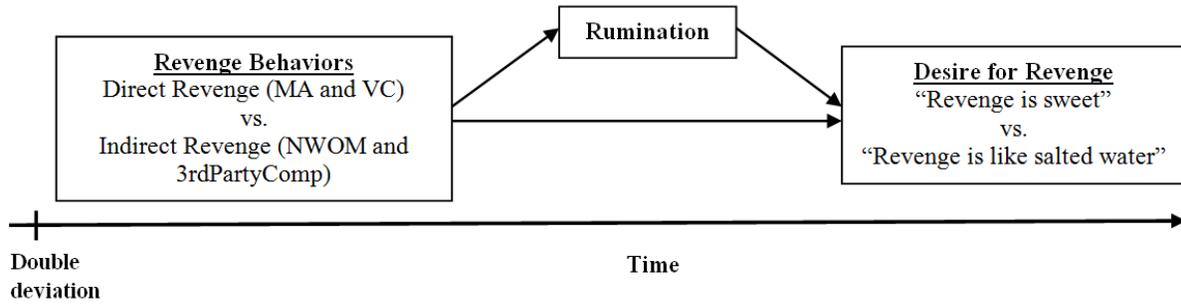
As second contribution, we examine the role of “rumination” as a key intervening variable in this process. Particularly, among other possible mechanisms (e.g., protecting others), the longitudinal design of the study enables us to investigate mediating role of rumination over time.

In the reminder of this essay, we first present our conceptual framework to show how we link these constructs together. Then, we define the key components of our framework (i.e., desire for revenge, direct and indirect RBs, and rumination) and develop our hypotheses based on differential effects of the RBs (direct vs. indirect) on rumination and desire for revenge. Subsequently, we test the hypotheses with a longitudinal survey of online complainers. Afterward, we present the results and discuss the findings.

## **1.2 Theoretical Background and Hypotheses Development**

The main purpose of our research is to investigate differential effects of RBs (direct vs. indirect) on subsequent desire for revenge after online public complaining. We examine this effect over time and in a longitudinal manner. To accomplish the purpose, we develop and test our hypotheses based on the conceptual framework in Figure 1.

**Figure 1: The proposed conceptual framework in online public complaining context**



As shown in the proposed framework, we expect that after facing double deviation (i.e., a service failure followed by a failed service recovery) and complaining in an online context, customers’ approach to get even with the firm (direct vs. indirect) will have different effects on their subsequent desire for revenge over time. As mentioned before, studies investigating the consequences of taking revenge on consumers’ emotions and psychological well-being, not only have not reached conclusive results, but they also documented two opposite effects of RBs on subsequent desire for revenge (see Table 1).

To have a better understanding of proposed process, we first examine the direct effect of RBs on subsequent desire for revenge. To be more specific, we study those customers who have experienced double deviation and voiced their complaint in the Internet. In a word, we explore the ways they have taken revenge against the firms and how much they still have desire to enact revenge.

In the next step, the mechanism in which RBs affects subsequent desire for revenge is examined. Several potential mechanisms, namely protecting other customers, restoring justice, and teaching a lesson to the firms, seem sensible to justify the effect of RBs on subsequent desire for

revenge. In the current study, because of its longitudinal design, the role of rumination in mediating the effect of RBs on desire for revenge is investigated.

**Table 1: Effect of revenge on mood regulation in literature**

	<b>Author(s)</b>	<b>Methodology</b>	<b>Context</b>	<b>Findings</b>
	Bennett (1997)	Survey	Asking student sample to fill out a questionnaire about a complaint incident	Venting anger during complaint leads to feeling of relief and psychological well-being.
	Nyer (2000)	Experiment	Soliciting real consumers' complaints in a fitness center	Complaining results in increased satisfaction and better evaluation of service.
	Bushman et al. (2001)	Experiment	Manipulating cathartic beliefs and using mood-freezing pill (placebo) on student sample to study their reaction to a negative feedback on their essays	Aggressing does not reduce subsequent aggression. However, people, who believe in cathartic effect, aggress to improve their mood and in some cases, they feel better afterward.
Revenge is sweet	Bechwati and Morrin (2003)	Scenario-based experiment	Students are to purchase and use a long-distance telephone service	Some customers are willing to choose suboptimal decision outcome in order to get even with a firm. This suggests that revenge provides some kinds of emotional satisfaction that compensates objective utility loss.
	Knutson (2004)	Summary	-	While getting revenge, people anticipate satisfaction.
	De Quervain et al. (2004)	Positron Emission Tomography	Studying neural basis in an economic exchange game	Punishing norm-violating behaviors activates reward-processing regions in brain.
	Denzler et al. (2009)	Experiment	3-phase experiment: cheating scenario + LDT task, taking revenge + LDT task, and stabbing a voodoo doll + LDT task	Aggressive behaviors leading to goal fulfillment result in reduction of accessibility of aggressive constructs in mind.
	Gollwitzer and Denzler (2009)	Experiment	Having student sample playing stock-market game and investigating the impact of knowing the source of their offender's suffering (revenge vs. fate) on their satisfaction	Revenge is satisfactory when it delivers a message to the offender. Suffering the offender is not a goal by itself.
	Strobel (2011)	fMRI	Using fMRI during a one-shot exchange game	Compared to altruistic punishment, revenge results in higher

				involvement of reward-related region in brain.
	Gollwitzer et al. (2011)	Experiment	Having students to receive negative feedback on their essays from their partner and receiving money contingent on the feedback + unfair splitting of money by their partner based on their performance on a task	Revenge cannot be satisfying unless the offender understands it as punishment for the wrongdoing.
	Gollwitzer and Bushman (2012)	Experiment	Having students to use mood-freezing pill (placebo) and playing an investment game + unfair division of raffle tickets by their partners	Feeling of satisfaction is not the goal of punishing an offender; however, people may feel satisfied when they see justice is re-established by punishing the offender.
	Denzler and Forster (2012)	Analytical	-	Same as Denzler et al. (2009)
Revenge is like salt water on thirst	Bushman (2002)	Experiment	Having students receive negative feedback about their essays and providing a punching bag for them to vent their anger while ruminating or are distracted	Venting anger during rumination about the source of provocation makes people angrier and more aggressive.
	Crombag (2003)	Survey	Having students think about a harmful incident and then asking them to fill out a questionnaire about their desire of revenge	Feeling of satisfaction after getting revenge does not last for a long time.
	Yoshimura (2007)	Survey	Having students to fill out a questionnaire about emotional outcomes of their revenge behaviors	Mostly negative emotion such as remorse, anger, and anxiety are reported after getting revenge.
	Carlsmith et al. (2008)	Experiment	Having students to play classic prisoner's dilemma and rating their hedonic reaction after punishing the free-rider	People get revenge in hope to feel better; however, they miscalculate their future emotional state and generally end up feeling worse.

### 1.2.1 Online Public Complaining

Internet gives tremendous power to customers, and it is a perfect medium for customers to reach many people and share their negative experiences with broader range of audience. In general, it is unlikely that customers complain in an online context as soon as they face service failures.

Studies show that they often use online complaining after experiencing double deviation (i.e., a service failure followed by a failed service recovery)(Grégoire, Tripp, and Legoux 2009; Tripp and Grégoire 2011). Mainly, customers go online and complain when they feel betrayed (Grégoire and Fisher 2008; Ward and Ostrom 2006) due to repeated failures. They use online complaining because they did not receive the expected response from the service firms. By doing so, they intend to make prospective customers aware of their experience and warn them to avoid dealing with the blameworthy firms.

Taking advantage of the inherent feature of the Internet, now there are many online protection agencies (e.g., [consumeraffairs.com](http://consumeraffairs.com)), complaint websites (e.g., [Rip-offReport.com](http://Rip-offReport.com)) and anti-corporation websites (e.g., [starbucked.com](http://starbucked.com)) (Grégoire and Fisher 2008; Ward and Ostrom 2006) that are used by angry customers to get back to the corresponding firms. In addition to these pre-formatted websites, advent and popularity of social media (e.g., facebook, opensky, etc.) intensify the impact of customers' negative experience on their friends' decision-making process. Aggrieved customers can easily complain about a service failure in their social media profile and share it with everyone they know. Moreover, since in the social media people know each other to some extent, they are more likely to rely on their friends' feedback. In sum, the negative impact of online complaint in the social media cannot be overlooked.

Another key point about online complaint is its uncontrollability. Service firms have no control over the content of online complaints and where those are getting published. In fact, they are only able to monitor and, if possible, respond to these complaints. Therefore, because of its extensive and potential damage, online public complaining needs special attention and specific strategies to be dealt with constructively.

## 1.2.2 Key Constructs

When customers face a service failure, they normally voice their complaint to the firms to receive some forms of recovery (e.g., apology, monetary compensation, etc.). If the firms fail to respond to their requests in an acceptable manner (i.e., double deviation), the customers are likely to engage in RBs to bring them down. To have a better understanding of proposed process in the conceptual framework (Figure 1), we define our constructs and then discuss how they work together.

### 1.2.2.1 Revenge Behaviors

Customers can engage in RBs against a firm in two forms: *direct RBs* or *indirect RBs*. Direct RBs are defined as overt behaviors confronting the firm and its representatives in their environment (Buss 1961; Grégoire, Laufer, and Tripp 2010). In other words, those RBs that are in the scope of a firm and it is aware of their happening fall in the category of direct RBs. However, when RBs happen beyond the scope of a firm and it is not aware of their happening – at least at initial stage – they are indirect RBs. We define indirect RBs as covert behaviors hurting the firm behind its back.

In the present study, it is relevant to distinguish these two types of RBs; because they have different repercussions on firms and need different levels of customers' perceived power to be chosen over the other alternative (Grégoire, Laufer, and Tripp 2010). Importantly, this research examines how this distinction can have an impact on customers' feeling, and specifically on their subsequent desire for revenge. Therefore, as can be seen in Figure 1, these two types of behaviors are shown distinctively.

Among possible forms of direct RBs, we study *marketplace aggression* and *vindictive complaining*. Marketplace aggression is a form of direct RB that is defined as customers' deliberate action to harm a firm's property or its employees in order to get back to the firm (Grégoire et al. 2010). It includes hitting objects, slamming door, physical conflict between customer and frontline employees, and bending the policies with the firm. The other direct RB is vindictive complaining, which occurs when customers voice their dissatisfaction in a way that disturbs a firm's employees and causes inconvenience to the firm's operations (Grégoire and Fisher 2008). It should be noted that in vindictive complaining there is no physical violence.

Spreading *negative* word-of-mouth is a form of indirect RB that is defined as a customer's effort to share his negative experience about the firm with friends and acquaintances. By spreading negative word-of-mouth, angry customer tries to tarnish the firm's name and warn his family and friends about the firm's customer service (Grégoire and Fisher 2006). *Third-party complaining for legal sources* – or third-party complaining for simplicity – is another kind of indirect RB. In our study, third-party complaining is defined as a customer's effort to use online resources to get access to legal expertise and advice and discuss with other customers. These resources could help the customers to sue the firm or pressurize it in a legal manner. Spreading negative word-of-mouth and third-party complaining fall in indirect RBs category because they happen beyond the scope of a firm and it is not aware of their incidence as soon as they happen.

#### **1.2.2.2 Desire for Revenge**

Revenge is a coping behavior (McCull-Kennedy et al. 2009) in response to the psychological and/or monetary costs generated by a service failure. When consumers do not receive the expected service recovery (i.e., double deviation), they perceive a high level of injustice

and betrayal (Bechwati and Morrin 2003; Grégoire and Fisher 2008), that motivate them to take actions to balance the unfair relationship with the firm. In this situation, customers may blame the firm and hold it responsible for the damages it caused (Aquino, Tripp, and Bies 2001). Blame attribution makes customers angry (Averill 1983) and triggers them to seek revenge. Here, a *desire for revenge* is defined as a felt urge to punish and get even with a firm because of the service failures (Grégoire and Fisher 2006). It must be indicated that customers are not always able to act based on their desire and transform their desire for revenge to RBs. Customers' perceived power is one the most prominent variables influencing this relationship (Grégoire et al. 2010). When customers perceive themselves as much powerful to be able to modify their unbalanced relationship with firms, they are more likely to act based on their desire for revenge and engage in direct RBs against the firms. In contrast, if they feel that they are not able to confront a firm directly and make it pay for its harm, they more probably engage in indirect RBs (Grégoire et al. 2010).

*Rumination.* Another key construct in the conceptual framework is rumination. Rumination is defined as a coping strategy characterized by a “passive and repetitive focus on the negative and damaging features of a stressful transaction” (Skinner et al. 2003). When people ruminate about a negative event such as service failure, they re-experience cognitive, affective, and behavioral outcomes of that event but with a lesser intensity (McCullough et al. 1998). We leave further discussion about the role of rumination in the relationship between RBs and desire for revenge in mediation section.

### **1.2.3 The Differentiated Effects of Revenge Behaviors on Desire for Revenge: Two Rival Explanations**

There are two rival explanations to explain the effects of RBs on customers' subsequent desire for revenge. The first explanation – that we name “revenge is sweet” – suggests that enacting revenge fulfills customers' desire for revenge and makes them feel better over time. The second explanation – namely “revenge is like salt water on thirst” – rather suggests that taking revenge amplifies customers' desire for revenge over time; by seeking revenge against a firm, a customer keeps ruminating about what happened, and it prevents him/her to deal more constructively with the problem. Here, we review the evidences supporting each school of thought.

#### **1.2.3.1 Revenge Is Sweet**

People's behavior in anger episodes is partly determined by their subjective beliefs. While enacting revenge, people who believe in the beneficial effects of cathartic actions are more likely to vent their anger in order to improve their mood (Bushman, Baumeister, and Phillips 2001). They engage in RBs hoping to discharge their negative feelings. They believe negative emotions “build up” if they do not find a chance to express them, resulting in internal pressure which consequently causes psychological imbalance (Bohart 1980). Breuer and Freud have termed this view as “hydraulic model” of emotions. Similar to the hydraulic pressure system in which if water or steam does not find a way out, the system explodes; if individuals do not release their negative emotions, especially anger, and keeps them inside, they eventually outbursts in an aggressive manner.

Confirming these beliefs, there are studies (Knutson 2004; de Quervain et al. 2004) in neuroscience that show the positive effects of taking revenge on mood regulation. In their study,

de Quervain and colleagues (2004) find that people tend to punish those who violate norms because these actions activate reward-processing areas in brain. When people face individuals, who do not comply with social norms, they are willing to penalize them effectively. This act triggers dorsal striatum (i.e., a region in human's brain) which is associated with reward-processing area that normally activates when a goal is achieved. Moreover, stronger activation of dorsal striatum results in higher investment in punishment. In other words, stronger activation of this area of brain shows higher expected satisfaction from punishment. Therefore, while people punish an offender by taking revenge, they anticipate satisfaction (Knutson 2004) from achieving justice and desirable social outcomes.

Validating de Quervain et al.' findings (2004), Strobel and colleagues (2011) study revenge in neuroscience context using fMRI technology and they find that when a punisher is directly affected (i.e., exerting punishment on offender by oneself instead of watching offender being punished) or when punishment has strong effect on the offender, involvement of reward-processing regions increases. This finding implies that by punishing an offender in a direct interaction (i.e., direct RBs), the avenger anticipates experiencing more satisfaction.

Confirming these findings, past research show that if the avenger's goal is to punish the offender for his wrongdoing (Gollwitzer and Bushman 2012) and to teach him a lesson (Gollwitzer et al. 2011), taking revenge could be satisfactory. However, in general, making the offender suffer by imposing punishment is not the avenger's ultimate goal (Gollwitzer and Denzler 2009). Instead, the avenger wants to prevent future offense by making the offender understand his act was wrong. Nevertheless, the avenger may still experience satisfaction which is probably because of re-establishment of justice and delivering his message to the offender.

Corroborating these findings in consumer contexts, it has been found that aggressive complaining and RBs make customers feel better afterward (McColl-Kennedy et al. 2009), and these actions can even encourage consumers to continue their business with the firm (Bennett 1997) and spread fewer negative word-of-mouth (Wetzer, Zeenlenberg, and Pieters 2007). Given these findings, one can conceivably conclude that those customers who take revenge against firms should feel less subsequent desire for revenge afterwards and they become more forgiving over time.

### **1.2.3.2 Revenge Is Like Salt Water on Thirst**

At the same time, there is evidence that exactly contradicts the above findings. The most compelling evidence comes from Carlsmith and colleagues' (2008) study. They claim that people punish offenders to improve their mood; unfortunately, these actions have the exact opposite effect. According to their findings, people miscalculate their subsequent emotions. After taking revenge, they end up feeling worse because they keep ruminating about what happened instead of "letting go" as forgiveness would entail. To put it differently, this study finds that revenge motivates ruminative thinking. Rumination, as a result, sustains negative feelings and these feelings, thereupon, trigger more rumination (Carlsmith et al. 2008).

When people ruminate about a negative event, it gives them the impression that the negative event keeps re-occurring. They re-experience the cognitive, affective, and behavioral outcomes of that event but with a lesser intensity (McCullough et al. 1998). Moreover, it should be noted that ruminating about the cause of anger primes aggressive thoughts and sustains angry feelings (McColl-Kennedy et al. 2009). It makes people more aggressive (Bushman 2002),

motivates them to aggress against the offender (Collins and Bell 1997), and reduces their ability to forgive (McCullough, Bono, and Root 2007).

It is also necessary to point out that rumination about an offense may trigger individuals to seek revenge and/or avoid the offender as well (McCullough et al. 1998, 2001). To explain this process, this fact should be considered that anger motivates rumination about the unpleasant event (Porath, Macinnis, and Folkes 2010). For instance, in consumer context, when customers face an unpleasant event (e.g., double deviation), generated anger due to this negative experience motivates ruminative thinking. Maintaining negative thoughts during rumination requires cognitive resources (Martin and Tesser 1996); so it decreases customers' ability to constructively process the event. Therefore, they are more likely to employ destructive ways (i.e., taking revenge) to resolve the problem. As a result, rumination prolongs individuals' desire for revenge and encourages them to get back to the offender. In sum, these findings suggest that taking revenge increases one's subsequent desire for revenge and confirm the "salt water" effect.

#### **1.2.4 Reconciliation of Two Rival Explanations**

To reconcile these two seemingly opposite schools of thought, we suggest that the way customers take revenge against firms affects the evolution of their subsequent desire for revenge over time. We predict that a "revenge is sweet" effect occurs when customers engage in direct RBs; because, direct RBs are more effective at fulfilling angry customers' desire for revenge and giving them a chance to get even with the firms. In other words, the direct nature of marketplace aggression and vindictive complaining provides angry customers the opportunity of venting their anger and ensures, in customers' eyes, that the firm has been punished for the damages it has caused to them. Indeed, revenge is more effective, in avengers' eyes, when they perceive that the

targets understand why revenge was imposed upon them (Gollwitzer and Denzler 2009; Gollwitzer et al. 2011). Based on this logic, we expect that the stronger a customer engages in direct RBs, the sharper will be the decrease of his subsequent desire for revenge over time.

**H1:** Customers who strongly engage in initial *direct* revenge behaviors (at Time 1) are associated with a sharper decrease of their subsequent desire of revenge over time, compared to customers who weakly engage in these *direct* revenge behaviors.

We predict a longitudinal “salt water” effect when customers engage in *indirect* RBs; the decrease in subsequent desire for revenge should be milder for customers who strongly engage in indirect RBs, compared to customers who weakly use these RBs. We expect this pattern for two key reasons. First, through negative word-of-mouth and third-party complaining, customers do not openly express their anger at the firms; the distance that avengers keep with the target does not allow them to restore the perceived loss in justice (Gollwitzer and Denzler 2009). In other words, indirect RBs do not provide the chance to “get even” with the firm, at least not immediately. Second, by engaging in indirect RBs, customers mainly aim to publicly expose the firm to others. This focus encourages customers to keep thinking about the double deviation (Porath, Macinnis, and Folkes 2010) and to continue their “fight” against the firm (Grégoire et al. 2009) by badmouthing about it in their surroundings and social media. This persistent focus on fighting “slows down” the natural decrease in subsequent desire for revenge. Formally:

**H2:** Customers who strongly engage in initial *indirect* revenge behaviors (at Time 1) are associated with a milder decrease of their subsequent desire of revenge over time, compared to customers who weakly engage in these *indirect* revenge behaviors.

### 1.2.5 Mediating Role of Rumination

The next question that comes to mind is about the mechanism of the effects of RBs on subsequent desire for revenge. It is interesting to find out why different kinds of RBs result in differential subsequent desire for revenge. Specifically, why do direct RBs quench desire for revenge while indirect RBs sustain it? As mentioned before, there are different potential mechanisms to explain this process over time. People's perspective on fair relationship may, to some extent, determine their subsequent desire for revenge. Likewise, their intention to protect others from possible damages due to interaction with blameworthy firms may affect the level of their desire to get even with the firms. In this essay, we choose one mechanism that is thought to be especially influential in a longitudinal context – that is through *rumination*.

Past research show that venting negative emotions will lead to feeling of relief and well-being (Bennett 1997) and results in less rumination about the cause of anger and dissatisfaction (Kowalski 1996). Therefore, aggressive complaining (e.g., marketplace aggression and vindictive complaining) makes customers feel better (McColl-Kennedy et al. 2009) and leave less subsequent desire for revenge, afterwards. In contrast, inhibition results in diminished cognitive process ability and increased rumination (Pennebaker 1993; Pennebaker 1997). Rumination motivates seeking revenge against the offender (McCullough et al. 1998), increases negative emotions (e.g., anger) and reduces one' ability to forgive (McCullough et al. 2007).

It is has been found that aggressive goal-fulfillment (e.g., direct RBs) reduces further aggression (Denzler, Förster, and Liberman 2009). If a victim uses aggression to seek revenge against an offender, after reaching the goal (i.e., giving the offender what he deserves), he will have less accessibility to aggressive constructs. That being said, one can speculate that customers

who find a chance to take revenge directly against an offender, have reached their goal which is to teach a lesson to the offender and make him understand about his wrongdoing. Therefore, they will have less subsequent desire for revenge afterwards because of lesser rumination.

On the other hand, those customers who do not find a chance to seek revenge directly against a firm, ruminate more intensely about the service failure. Because, indirect revenge does not offer a chance to the avenger to teach a lesson to the offender and make him understand about the wrongdoing. Therefore, it does not provide a definite closure to the avenger's wound. As a result, the avenger keeps thinking about getting even with the offender, which leads to more rumination. Rumination, as has been mentioned, motivates seeking revenge (McCullough et al. 1998) and increases one's subsequent desire for revenge. Therefore:

**H3:** Rumination mediates the effect of revenge behaviors on subsequent desire for revenge over time; in a way that direct (indirect) revenge behaviors decrease (increase) the desire for revenge.

## **1.3 Method**

### **1.3.1 Participants and Design**

Essay 1 is a longitudinal field study with real online complainers of two established websites: ConsumerAffairs.com and RipOffReport.com. ConsumerAffairs.com is a consumer news and advocacy organization founded in 1998. It lists consumers' reviews that are helpful to others and provides consumers a platform to seek help to resolve their problem with firms. Ripoff.com is a consumer advocate website that reports consumers' complaints. Consumers can use this site to broadcast their negative experience to others. More than two million files have been

reported in this website and it has been visited almost 9 billion times until July 2017, since its foundation in 1998. This essay is conducted in the context of a double deviation: both organizations offer their services once complainers have initially complained to the firm and failed to reach a settlement.

The study consists of four series of questionnaires (i.e., waves), sent to participants every two weeks. To reduce memory bias, the first questionnaire was sent to online complainers who posted a complaint at the websites in the preceding 10 days. The first questionnaire asks participants to rate how much they used different types of RBs after a failure. Customers' desires for revenge and rumination have been repeatedly measured from time 1 to 4 to observe their evolution over time.

A total of 2,386 emails were sent to potential complainers of the two websites, inviting them to go to Qualtrics.com and complete the first questionnaire. A total of 435 participants completed first wave of questionnaire answering questions about RBs, desire for revenge, and rumination (60.2% female,  $M_{\text{age}} = 44.04$ ,  $SD = 12.28$ ). The response rate for the wave one was about 18.2%. From Time 2 to Time 4, respondents answered questions related to their desire for revenge and rumination. The number of respondents decreased from 296 in Time 2 (62.2% female,  $M_{\text{age}} = 44.45$ ,  $SD = 12.05$ ) to 212 in Time 3 (60.4% female,  $M_{\text{age}} = 46.07$ ,  $SD = 11.88$ ). Overall, 165 respondents (56.0% female,  $M_{\text{age}} = 46.83$ ,  $SD = 11.58$ ) completed all waves of questionnaires in exchange of a drawing of a grand \$500 prize and ten \$50 ones. The response rate at Time 4 was 7.3%.

### 1.3.2 Measurement

Unless otherwise indicated, all measures are reflective scales based on seven-point Likert scales (1 =” Strongly disagree” and 7 =” Strongly agree”).

*Desire for revenge* is measured using the scale developed by Aquino et al. (2001). This measure has been properly adapted and used in consumer context (Grégoire and Fisher 2006; Grégoire et al. 2010; Grégoire et al. 2009). We measured desire for revenge using five items, including “I wanted to take actions to get the firm in trouble.”

*Direct Revenge Behaviors.* Marketplace aggression is measured using the adapted scale initially developed by Douglas and Martinko (2001) in workplace context. The scale is formed by four items, including “I damaged property belonging to the service firm.” The marketplace aggression scale is the only formative scale. Each item represents a behavior that can occur independently of each other, so the items of this scale are not expected to be highly correlated. We use a four-item scale to measure vindictive complaining (Grégoire et al. 2010; Hibbard et al. 2001); it includes items such as “I complained to the firm to give a hard time to the representatives.”

*Indirect Revenge Behaviors.* Negative word-of-mouth is measured by adapting the scale developed by Maxham and Netemeyer (2002). This scale that has already been used in consumer context (Grégoire et al. 2010) includes three items such as “I spread negative word-of-mouth about the firm.” To measure third-party complaining, we used a reflective scale with three items (Grégoire, Tripp, and Legoux 2009), including “I wrote a complaint to find a legal remedy.”

*Rumination* is measured by adapting the scale developed by McCullough et al. (2007) to consumer context. We use four items on a six-point Likert scale (0 = “Not at all” and 5 =

“Extremely”) such as “I couldn’t stop thinking about what the firm did to me” to measure this construct. We also controlled for several variables including the three justice dimensions and severity in a model including just RBs and time. Since none was significant, we dropped them from further analyses.

Descriptive statistics of the measured constructs are provided in Table 2 and details of the scales are presented in Appendix 1.

### 1.3.2.1 Measurement Models

*Confirmatory factor analyses (CFA).* The psychometric of the scales were assessed via CFA. This model included vindictive complaining, third-party complaining, negative word-of-mouth (i.e., all RBs except marketplace aggression, since it is a formative scale), desire for revenge and the control variables (i.e., the three justice dimensions with severity) measured at Time 1. The model is composed of 26 variables, and it produced a satisfactory fit with a goodness of fit index of .95, a root mean square error of approximation (RMSEA) of .062, and a chi-square of 159.96 (df = 59,  $p \leq .0001$ ). In this model, the loadings ( $\lambda$ ) were large and significant. Moreover, Cronbach’s alphas for all indicators were greater than .7.

**Table 2: Descriptive statistics**

	Mean	Standard Deviation	Cronbach’s $\alpha$
<b>Revenge Behaviors</b>			
Marketplace aggression	1.61	.88	-
Vindictive complaining	1.86	1.49	.92
Negative word-of-mouth	5.19	1.98	.85

Third-party complaining	4.45	2.34	.95
<b>Rumination</b>			
Rumination (Time 1)	3.90	1.61	.96
Rumination (Time 2)	2.75	1.68	.97
Rumination (Time 3)	2.38	1.60	.97
Rumination (Time 4)	2.22	1.48	.97
<b>Desire for revenge</b>			
Desire for revenge (Time 1)	4.17	2.27	.97
Desire for revenge (Time 2)	3.72	2.21	.96
Desire for revenge (Time 3)	3.18	2.11	.96
Desire for revenge (Time 4)	3.04	2.14	.96

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## 1.4 Results

Our hypotheses test the effects of initial RBs (i.e., at Time 1) on subsequent desire for revenge over time (i.e., Times 1-4). We adopted individual growth modeling approach to explore our longitudinal data. This approach allows for two levels of variation: between and within subjects. In our study, measured desire for revenge, taken over time, is nested within individuals drawn from a population of real online complainers, forming a two-level hierarchical structure. In the model, within and between subjects variation of desire for revenge over time are at level one and two, respectively (Singer 1998). To carry out the analyses, we used mixed linear models fitted with the MIXED procedure in SAS. Our results appear in Table 3.

Table 3 contains coefficients of five models that are fitted to data. To capture the rate of change of the dependent variable (i.e., desire for revenge) over time, we incorporate a “time”

variable in the analyses as growth parameter. In the basic model, we just included individual covariates (i.e., RBs) and growth parameter (i.e., time). However, in models 1 to 4, we added the interaction of individual RBs with growth parameter one at a time. We chose this approach to study the varying effect of each RB on desire for revenge over time, independently.

*Basic Model.* In the basic model, the main effects of time, the RBs, and the control variables on the evolution of the desire for revenge are examined. According to Table 3, time and all RBs, but marketplace aggression, are significant predictors of desire for revenge ( $\beta_{\text{Time}} = -.34, p < .001$ ;  $\beta_{\text{Vindictive complaining}} = .44, p < .001$ ;  $\beta_{\text{Negative word-of-mouth}} = .27, p < .001$ ;  $\beta_{\text{Third-party complaining}} = .17, p < .001$ ). The results of the basic model suggest that although the desire for revenge decreases over time, the more people engage in all RBs, except aggression, the more intense their desire for revenge is over time. None of the control variables are significant; they will not be discussed further.

To be able to test H1 and H2, we included the interaction between each RB and time in a separate model (i.e., models 1 to 4).

To understand and illustrate the interaction effects (i.e., interaction of each RBs and time), we plotted each interaction separately. In addition, to be able to show a clear interaction, we made a distinction between customers who strongly or weakly engage in each RB. To do so, customers who strongly engage in the behavior of interest are illustrated with one standard deviation above the mean ( $M + SD$ ), and customers who weakly engage in the behavior of interest are delineated with one standard deviation below the mean ( $M - SD$ ). In addition, for each time (i.e., from time 1 to 4), we replace the rest of the behaviors with their means (i.e., mean-centered). For example, while examining vindictive complaining, we made a distinction between weak vindictive

complaining ( $M - SD$ ) and strong vindictive complaining ( $M + SD$ ) and then mean-centered the rest of the RBs. Then, as explained above, we plotted the effect of each the RB and its interaction with time on subsequent desire for revenge, accordingly (Figure 2).

**Table 3: The effect of different RBs on desire for revenge over time**

	Desire for revenge				
	Basic model	Model 1	Model 2	Model 3	Model 4
	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
Intercept	1.75***	1.35***	1.45***	1.80***	1.74***
Time	-.34***	-.09	-.15 <sup>a</sup>	-.37*	-.34**
<b>Revenge behaviors</b>					
Marketplace aggression	-.16	-.11	-.17	-.16	-.16
Vindictive complaining	.44***	.44***	.63***	.44***	.44***
Negative word-of-mouth	.27***	.26***	.27***	.27***	.27***
Third-party complaining	.17***	.17***	.17***	.17***	.17**
<b>Interaction of revenge behaviors with time</b>					
Marketplace aggression × Time	-	-.16*	-	-	-
Vindictive complaining × Time	-	-	-.11**	-	-
Negative word-of-mouth × Time	-	-	-	.01	-
Third-party complaining × Time	-	-	-	-	.00

\* $p < .05$

\*\* $p < .01$

\*\*\* $p < .001$

<sup>a</sup>  $.05 < p < .1$

*Models 1 and 2.* To test H1, we looked at the interaction effects involving direct RBs in

models 1 and 2. To test the effect of marketplace aggression on desire for revenge, we added its interaction with time in model 1. According to the results, the interaction effect achieves significance level ( $\beta_{\text{Marketplace aggression} \times \text{Time}} = -.16, p < .05$ ). This result implies that engaging in aggressive behaviors in response to double deviation has a quenching effect on customers' subsequent desire for revenge. As can be seen in Figure 2a, the desire for revenge of customers who engage more intensely in aggressive behaviors decreases more rapidly over time, compared with customers who engaged less intensely in this RB. Figure 1a also shows that at Time 1, all customers had almost the same level of desire for revenge. However, compared to customers who used less aggression, the most aggressive individuals had a post desire for revenge declining more quickly with time. To test the effect of vindictive complaining on desire for revenge, we incorporated its interaction with time in model 2. According to the results, the interaction effect is significant ( $\beta_{\text{Vindictive complaining} \times \text{Time}} = -.11, p < .01$ ). Consistent with H1, the negative slope is steeper for customers strongly engaging in vindictive complaining; the post desire for revenge of these customers decreases more rapidly over time (Figure 2b). It should be noted that the interaction pattern is somewhat different from that observed for marketplace aggression. Customers who strongly engage in vindictive complaining have a greater desire for revenge at Time 1, compared to those who use less intensively this direct behavior. However, as a result of a sharper decrease in the desire for revenge in the high "vindictive complaining" group, there is no observable difference at Time 4 between these two groups.

*Models 3 and 4.* To test H2, we incorporate the interaction of time and indirect RBs in model 3 and 4. Model 3 inserts the interaction of Negative word-of-mouth with time to the basic model. According to model 3, the interaction effect does not achieve significance level ( $p = .83$ ); however, the main effect of negative word-of-mouth is significant ( $\beta_{\text{Negative word-of-mouth}} = .27, p <$

.001). As illustrated in Figure 2c, there is no difference between the slopes of the two subgroups; H2 as currently stated is not formally confirmed. However, these results reveal that customers who declared spreading more negative word-of-mouth at Time 1 have a higher desire for revenge over time, compared to those who spread fewer negative word-of-mouth (Figure 2c). In that regard, these results are consistent with an unfavorable effect of this indirect RB on post desire for revenge. Model 4 adds the interaction of third-party complaining with time to the basic model. Again, the interaction effect is not significant ( $p = .98$ ) but the main effect of third-party complaining is ( $\beta_{\text{Third-party complaining}} = .17, p < .01$ ). Customers who engaged more in third-party complaining kept a constantly higher desire for revenge over time (Figure 2d). Although these findings are not supportive of H2, as currently stated, they remain consistent with the presence of a “salt water” effect.

#### 1.4.1 Mediation Analysis

Longitudinal data are to be preferred for testing of mediation analyses. Because the quality of the data are better compared to cross-sectional data and it provides a better opportunity of monitoring intra- and inter-individual variation as a part of mediation analyses (Selig and Preacher 2009). Longitudinal data address some non-negligible issues of cross-sectional data by *i*) allowing time to the causal effect to unfold over time, *ii*) preventing over- or underestimation of mediation model due to leaving out previous levels of the variables, and *iii*) permitting varying magnitude of causal effect over time (Gollob and Reichardt 1987).

To perform mediation analyses, following Zhao et al. (2010) recommendation, we performed bootstrap mediation analysis to see whether rumination plays a role in mediating the effect of RBs on subsequent desire for revenge. To do so, we used the macro “MEDIATE” in SPSS

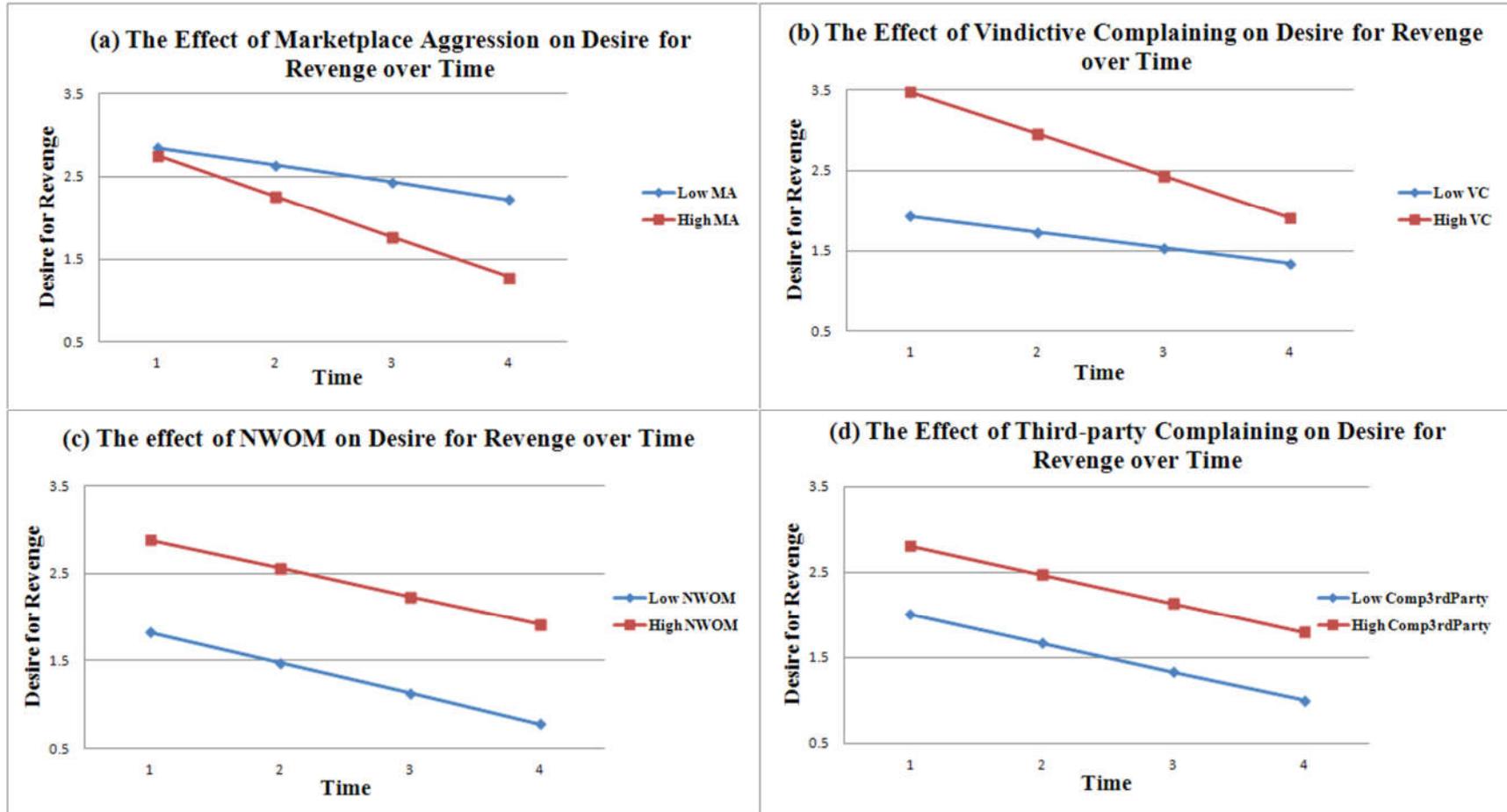
developed by Hayes and Preacher in a white paper in 2013. This macro uses bootstraps to carry out mediation analyses. Bootstraps has been shown to perform better than Sobel test (Preacher and Hayes 2004, 2008). In the analysis, we used 10,000 bootstrap re-samples and a bias-corrected 95% confidence interval.

In mediation analyses, we examined how rumination mediated the effect of direct vs. indirect revenge on subsequent desire for revenge over time. To do so, we examined RBs at Time 1 and allowed a lag for these behaviors to unfold their affect on subsequent desire for revenge via rumination. To be more specific, we performed three mediation analyses – that were “RBs at Time 1 → rumination at Time 2 → desire for revenge at Time 2”, “RBs at Time 1 → rumination at Time 3 → desire for revenge at Time 3”, and “RBs at Time 1 → rumination at Time 4 → desire for revenge at Time 4.” Therefore, there were 3 waves to be analyzed. We chose this approach because there is no test of mediation analysis for growth models.

As mentioned in H3, we expect that at each time rumination mediates the effect of RBs on desire for revenge; in such a way that direct RBs have a negative indirect effect on subsequent desire for revenge. In contrast, we anticipate that indirect RBs have a positive indirect effect on subsequent desire for revenge.

*Direct Revenge Behavior.* Indirect effect of marketplace aggression on desire for revenge is significant in all waves ( $\beta_2 = -.175$ ,  $\beta_3 = -.225$ , and  $\beta_4 = -.274$ ,  $p < .05$ ), because their confidence intervals do not include zero. Moreover, its negative sign in all three waves is what is expected based on H3. These results imply that more marketplace aggression leads to less desire for revenge via rumination and conform with what H3 has predicted for direct RBs (Table 4).

Figure 2: The effect of different revenge behaviors on desire for revenge over time



However, contrary to what H3 has anticipated, vindictive complaining does not have significant indirect effect on subsequent desire for revenge. In addition, its indirect effect on desire for revenge is positive in all waves. We discuss possible justification for this effect in discussion.

**Table 4: Indirect effects of different revenge behaviors on desire for revenge mediated by rumination**

		Desire for revenge		
		W2 [C.I.]	W3 [C.I.]	W4 [C.I.]
<b>Revenge behaviors</b>				
<b>Direct</b>	Marketplace aggression	-.175* [-.423 to -.010]	-.255* [-.500 to -.075]	-.274* [-.541 to -.090]
	Vindictive complaining	.053 [-.026 to .161]	.072 [-.016 to .199]	.086 [-.004 to .225]
<b>Indirect</b>	Negative word-of-mouth	.152* [.078 to .254]	.099* [.035 to .181]	.130* [.066 to .214]
	Third-party complaining for legal source	.081* [.033 to .154]	.102* [.048 to .176]	.068* [.026 to .129]

\*95% Confidence Interval (C.I.)

*Indirect Revenge Behavior.* Indirect effect of negative word-of-mouth on subsequent desire for revenge through rumination is significant and positive at all three waves ( $\beta_2 = .152$ ,  $\beta_3 = .099$ , and  $\beta_4 = .130$ ,  $p < .05$ ); which implies that rumination mediates the effect of negative word-of-mouth on desire for revenge and more intense spreading negative word-of-mouth results in more subsequent desire for revenge. The same rationale is applicable to third-party complaining. Indirect effect of third-party complaining on subsequent desire for revenge is significant and positive at all three waves ( $\beta_2 = .081$ ,  $\beta_3 = .102$ , and  $\beta_4 = .068$ ,  $p < .05$ ); meaning that rumination mediates the effect of third-party complaining on desire for revenge and more intense complaining to the third-party results in more subsequent desire for revenge, afterwards. These results support H3 (Table 4).

## 1.5 General Discussion

First, Essay 1 confirms an established finding: time has a negative effect on subsequent desire for revenge. More importantly, we find that the decrease in this desire over time is influenced by the directness of the initial RB (at Time 1). Our results show that different RBs—direct versus indirect—are associated with distinct patterns regarding the evolution of desire for revenge. In other words, with examination of evidence supporting two rival schools of thought – “revenge is sweet” and “revenge is like salt water on thirst” –, we find that one’s subsequent desire for revenge is dependent on the way one enacts revenge.

Consistent with H1, Essay 1 demonstrates that customers engaging more in *direct RBs* have a faster decreasing subsequent desire for revenge over time than individuals engaging less in these RBs. This sharper reduction in desire for revenge suggests that using direct RB has healing benefits. In other words, confirming the “revenge is sweet” effect, we find that engaging in direct RBs – mainly under the form of marketplace aggression – makes customers vent their negative emotions and feel a lesser subsequent desire for revenge over time. Direct confrontation creates the impression that the firm has received what it deserved (Gollwitzer and Bushman 2012), and the customer perceives to have gotten even with the firm. It also makes customers feel they have reached their revenge-related goals; because by engaging in direct revenge, they taught the firm a lesson, and potentially protected other customers from possible future damages (Gollwitzer and Denzler 2009). Moreover, direct revenge may help offended customers feel they have balanced the gain and the loss and reestablished justice in their relationship with firms.

In turn, the longitudinal pattern following indirect RBs complies with the “salt water” metaphor. Although the decline in desire for revenge follows the same trend in both groups—these

results differ from the interaction predicted by H2—we find that more engagement in indirect RBs is followed by higher subsequent desires for revenge, and this difference is maintained over time. This pattern is consistent for both studied indirect RBs.

Engaging in indirect RBs makes customers ruminate about what happened without providing them with a chance to settle the score with the firm. Indirect RBs do not offer the opportunity to achieve the typical outcomes associated with revenge. As a result, customers' desire for revenge is not “quenched” as it is the case in direct revenge. Although a desire for revenge is decreasing over time – which is a typical result found in the revenge literature (Grégoire et al. 2009) – engaging in indirect revenge lead customers to experience a sustained subsequent desire for revenge compared to customers who are not using this response.

The second contribution of Essay 1 is unveiling the process at play. Among possible mediators (e.g., justice restoration, protecting other customer, and etc.), we studied the role of rumination in explaining the effect of the RBs on subsequent desire for revenge. In fact, because of its nature, rumination is best studied in a longitudinal design.

Of the two direct RBs, marketplace aggression confirms our prediction and has a negative indirect effect on subsequent desire for revenge. In other words, we find that customers who more intensely engage in aggressive behaviors to take revenge against a firm (e.g., breaking firm's properties) feel less subsequent desire for revenge because they less ruminate about their negative experience. Direct confrontation helps them to reach their revenge-related goals; they have vented their negative emotions, got even, and set the score with the firm. They feel relieved because they gave the firm what it deserves (Gollwitzer and Denzler 2009) and balanced their relationship with it. After aggressive confrontation with the firm, it is less likely that the customer expects any – or

at least full – compensation. Because, in the customer’s eye the problem is resolved for the most part and there is no need to think about it intensely. Thus, he ruminates less about the firm’s failure and, therefore, feel less subsequent desire for revenge afterwards.

Despite our prediction that vindictive complaining will show a similar behavior to marketplace aggression, its indirect effect on subsequent desire for revenge is not significant. We can justify the influence of vindictive complaining on rumination and subsequent desire for revenge by considering the fact that it is directed at the firm’s employees, instead of the firm itself. When angry customers complain vindictively to the frontline employees, they are essentially getting back to the employees; while, in fact, they hold the firm responsible for the failure. Moreover, as it was mentioned in measurement section, desire for revenge is measured for the firm as a target and not the employees. Therefore, although, they vent their negative feeling out by shouting at frontline employees and using coarse language, they still feel desire to take revenge against the main cause of the problem – the firm itself. Thus, the indirect effect of vindictive complaining on subsequent desire for revenge is not significant.

Consistent with our prediction, indirect RBs (i.e., negative word-of-mouth and third-party complaining) leads to more rumination and more subsequent desire for revenge, subsequently. As discussed before, indirect confrontation, although, provides some sense of relief to the angry customers, it does not fulfill all revenge-related goals. For instance, assume a customer shares his negative experience with others and spreads negative word-of-mouth to get back to a firm; even though, he tries to bring the firm down in some way, he may still feel urge to teach the firm that what it did was wrong (Gollwitzer and Denzler 2009). Compared to direct revenge, indirect revenge does not fulfill one’s desire to balance power between parties and re-store one’s self-esteem. Nevertheless, spreading negative word-of-mouth and using legal sources could damage a

firm in some ways but they do not clearly identify *which customer* has enacted revenge against the firm. Therefore, in the customer's eye it may still needed to teach a lesson to the firm (Gollwitzer, Meder, and Schmitt 2011) and prove that it cannot treat customers in an opportunistic manner. The key point is that indirect revenge does not guarantee re-establishment of justice in short term. Thus, aggrieved customers continue thinking about the ways of getting back to the firm until they feel justice is restored. Given these points, it is evident why indirect revenge leads to more rumination and more subsequent desire for revenge.

Our work could even explain the findings of Carlsmith et al. (2008). They found that when participants punished a free-rider and took revenge against her by reducing her profit, they ended up feeling worse. The key point that is overlooked here is the way they enacted revenge. In their experiments, the offender and the avenger did not find the opportunity to have a direct confrontation. The avenger, without meeting the offender, spent some money to punish and take revenge against her. Since the avenger did not take revenge in a face-to-face manner, he could not make sure that the offender has understood why punishment has been done and learned free-riding has its consequences. Preventing direct confrontation in the structure of their experiments ruled out the chance of enacting direct revenge. Therefore, since the avenger did not make sure the revenge-related goals were achieved, he ended up feeling worse. Our study, instead, takes into account the differentiated effects of different RBs. Confirming Carlsmith and colleagues' finding (2008), we found that taking indirect revenge sustain the avenger' subsequent desire for revenge over a longer period of time.

Our study, also, confirms Denzler and colleagues' finding (2009). They found that aggressive behaviors leading to goal fulfillment results in reduced accessibility of aggressive constructs in mind. Validating this finding, we ascertain that marketplace aggression reduces

subsequent desire for revenge, both directly and through rumination. Therefore, when revenge is taken against a firm in form of aggressive behaviors, subsequent desire for revenge is reduced.

The practical takeaway from our work is that the service firms should consider possible ways that aggrieved customer can use to get back at them. They should develop strategies to attenuate customers' desire for revenge in long run and encourage customers to continue their business with them. They need to design policies that allow the customers to vent their negative emotions and voice their complaints directly to the firms. Besides, they need to address indirect RBs cautiously. Because of sustaining desire for revenge for a longer period and use of social media in spreading negative word-of-mouth, this kind of behavior is riskier for firms. Perhaps, to decrease rumination and subsequent desire for revenge, firms should attempt to give a sense of closure to the customers who engaged in indirect RBs against them. To do this, firms should employ strategies to reach out to these customers and transform their action into direct revenge – by encouraging them to complain to the firm in a private manner. Otherwise, by using social media, customers can easily share their negative experience and damage firms' reputation.

## **1.6 Limitation and Future Work**

In this research, we examined the effect of taking revenge (direct vs. indirect) on desire for revenge in a longitudinal setting. The key contribution of Essay 1 is to show that these effects occur over time, in a naturalistic setting involving real-life complainers. However, this study also has limitations. First, this kind of study involves memory bias that may affect the accuracy of customers' recall. To minimize memory bias, we surveyed online complainers who filed a report on preceding 10 days from the beginning of the first wave of the study. Although, the delay is quite short, however, the effect of memory bias cannot be eliminated completely. Second, we had no

control over the response rate and lost many participants over the course of collecting information in four waves (i.e., high level of attrition). Third, although we control for many variables, the results could be explained by non-observed individual differences between complainers more prone to enact direct versus indirect RBs. And fourth, correlational studies do not allow a direct comparison between direct vs. indirect RBs.

There are several exciting research avenues that demand further attention. First, since rumination partially mediates the effect of RBs on desire for revenge, researchers can investigate the role of other possible mediators such as justice restoration. Justice is a strong social norm; therefore, it may play a critical role in the context of revenge. Second, to expand on this research, it is interesting to further examine the role of vindictive complaining by measuring the desire for revenge at employees as target, instead of firms. Third, further research could incorporate “forgiveness” as an alternative coping strategy in response to double deviation and examine how it differently influences the key constructs mentioned in our conceptual framework.

## References

- Aquino, Karl, Thomas M. Tripp, and Robert J. Bies (2001), "How employees respond to personal offense: The effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace," *The Journal of Applied Psychology*, 86 (1), 52–59.
- Averill, James R. (1983), "Studies on anger and aggression: Implications for theories of emotion," *American Psychologist*, 38 (11), 1145–60.
- Bechwati, Nada Nasr and Maureen Morrin (2003), "Outraged consumers: Getting even at the expense of getting a good deal," *Journal of Consumer Psychology*, 13 (4), 440–53.
- Bennett, Roger (1997), "Anger, catharsis, and purchasing behavior following aggressive customer complaints," *Journal of Consumer Marketing*, 14 (2), 156–72.
- Bohart, Arthur C. (1980), "Toward a cognitive theory of catharsis," *Psychotherapy: Theory, Research & Practice*, 17 (2), 192–201.
- Bushman, Brad J. (2002), "Does venting anger feed or extinguish the flame? Catharsis, rumination, distraction, anger, and aggressive responding," *Personality and Social Psychology Bulletin*, 28 (6), 724–31.
- , Roy F. Baumeister, and Collen M. Phillips (2001), "Do people aggress to improve their mood? Catharsis beliefs, affect regulation opportunity, and aggressive responding," *Journal of Personality and Social Psychology*, 81 (1), 17–32.
- Buss, Arnold H. (1961), *The psychology of aggression*, New York: Wiley.
- Carlsmith, Kevin M., Timothy Wilson, and Daniel Gilbert (2008), "The paradoxical consequences of revenge," *Journal of Personality and Social Psychology*, 95 (6), 1316–24.
- Chagnon, Napoleon A. (1988), "Life Histories, Blood Revenge, and Warfare in a Tribal Population," *Science*, 239 (4843), 985–92.

- Collins, Katrina and Robert Bell (1997), "Personality and aggression: The dissipation-rumination scale," *Personality and Individual Differences*, 22 (5), 751–55.
- Crombag, Hans, Eric Rassin, and Robert Horselenberg (2003), "On vengeance," *Psychology, Crime & Law*, 9 (4), 333–44.
- Denzler, Markus and Jens Förster (2012), "A goal model of catharsis," *European Review of Social Psychology*, 23 (1), 107–42.
- , ———, and Nira Liberman (2009), "How goal-fulfillment decreases aggression," *Journal of Experimental Social Psychology*, 45 (1), 90–100.
- Douglas, Scott C. and Mark J. Martinko (2001), "Exploring the role of individual differences in the prediction of workplace aggression," *Journal of Applied Psychology*, 86 (4), 547–59.
- Elster, Jon (1990), "Norms of revenge," *Ethics*, 100 (4), 862–85.
- Gollob, Harry F. and Charles S. Reichardt (1987), "Taking Account of Time Lags in Causal Models," *Child Development*, 58 (1), 80–92.
- Gollwitzer, Mario (2009), "Justice and revenge," in *Social Psychology of Punishment of Crime*, S. Bieneck, M. E. Oswald, and J. Hupfeld-Heinemann, eds., Hoboken, NJ: Wiley.
- and Brad J. Bushman (2012), "Do victims of injustice punish to improve their mood?," *Social Psychological and Personality Science*, 3 (5), 572–80.
- and Markus Denzler (2009), "What makes revenge sweet: Seeing the offender suffer or delivering a message?," *Journal of Experimental Social Psychology*, 45 (4), 840–44.
- , Milena Meder, and Manfred Schmitt (2011), "What gives victims satisfaction when they seek revenge?," *European Journal of Social Psychology*, 41 (3), 364–374.
- Grégoire, Yany and Robert J. Fisher (2006), "The effects of relationship quality on customer retaliation," *Marketing Letters*, 17 (1), 31–46.

- and ——— (2008), “Customer betrayal and retaliation: When your best customers become your worst enemies,” *Journal of the Academy of Marketing Science*, 36 (2), 247–261.
- , Daniel Laufer, and Thomas M. Tripp (2010), “A comprehensive model of customer direct and indirect revenge: Understanding the effects of perceived greed and customer power,” *Journal of the Academy of Marketing Science*, 38 (6), 738–758.
- , Thomas M. Tripp, and Renaud Legoux (2009), “When customer love turns into lasting hate: The effects of relationship strength and time on customer revenge and avoidance,” *Journal of Marketing*, 73 (6), 18–32.
- Hibbard, Jonathan D., Nirmalya Kumar, and Louis W. Stern (2001), “Examining the impact of destructive acts in marketing channel relationships,” *Journal of Marketing Research*, 38 (1), 45–61.
- Knutson, Brian (2004), “Behavior: Sweet revenge?,” *Science*, 305 (5688), 1246–47.
- Kowalski, R M (1996), “Complaints and complaining: functions, antecedents, and consequences,” *Psychological bulletin*, 119 (2), 179–96.
- Martin, Leonard L. and Abraham Tesser (1996), “Some ruminative thoughts,” in *Ruminative thoughts*, Advances in social cognition, R. S. Wyer, Jr., ed., Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc, 1–47.
- Maxham, James G. and Richard G. Netemeyer (2002), “A longitudinal study of complaining customers’ evaluations of multiple service failures and recovery efforts,” *Journal of Marketing*, 66 (4), 57–71.
- McColl-Kennedy, Janet R., Paul G. Patterson, Amy K. Smith, and Michael K. Brady (2009), “Customer rage episodes: Emotions, expressions and behaviors,” *Journal of Retailing*, 85 (2), 222–237.

- McCullough, Michael E., C. Garth Bellah, Shelley Dean Kilpatrick, and Judith L Johnson (2001), “Vengefulness: relationships with forgiveness, rumination, well-being, and the big five,” *Personality and Social Psychology Bulletin*, 27 (5), 601–10.
- , Giacomo Bono, and Lindsey M. Root (2007), “Rumination, emotion, and forgiveness: Three longitudinal studies,” *Journal of Personality and Social Psychology*, 92 (3), 490–505.
- , Robert Kurzban, and Benjamin A. Tabak (2011), “Evolved mechanisms for revenge and forgiveness,” in *Human aggression and violence: Causes, manifestations, and consequences*, Herzilya series on personality and social psychology., P. R. Shaver M. Mikulincer, ed., Washington, DC, US: American Psychological Association, 221–39.
- , K. Chris Rachal, Steven J. Sandage, Everett L. Worthington Jr, Susan W. Brown, and Terry L. Hight (1998), “Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement,” *Journal of Personality and Social Psychology*, 75 (6), 1586–1603.
- Nyer, Prashanth U. (2000), “An investigation into whether complaining can cause increased consumer satisfaction,” *Journal of Consumer Marketing*, 17 (1), 9–19.
- Pennebaker, James. W (1993), “Putting stress into words: health, linguistic, and therapeutic implications,” *Behaviour research and therapy*, 31 (6), 539–48.
- Pennebaker, James W. (1997), *Opening up: the healing power of expressing emotions*, Guilford Press.
- Porath, Christine, Debbie Macinnis, and Valerie Folkes (2010), “Witnessing incivility among employees: Effects on consumer anger and negative inferences about companies,” *Journal of Consumer Research*, 37 (2), 292–303.

- Preacher, Kristopher J and Andrew F Hayes (2004), "SPSS and SAS procedures for estimating indirect effects in simple mediation models," *Behavior research methods, instruments, & computers: a journal of the Psychonomic Society, Inc*, 36 (4), 717–31.
- and ——— (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models," *Behavior research methods*, 40 (3), 879–91.
- de Quervain, Dominique J-F, Urs Fischbacher, Valerie Treyer, Melanie Schellhammer, Ulrich Schnyder, Alfred Buck, and Ernst Fehr (2004), "The neural basis of altruistic punishment," *Science*, 305 (5688), 1254–58.
- Selig, James P. and Kristopher J. Preacher (2009), "Mediation models for longitudinal data in developmental research," *Research in Human Development*, 6 (2–3), 144–64.
- Singer, Judith D. (1998), "Using SAS PROC MIXED to fit multilevel models, hierarchical models, and individual growth models," *Journal of Educational and Behavioral Statistics*, 23 (4), 323–55.
- Skinner, Ellen A., Kathleen Edge, Jeffrey Altman, and Hayley Sherwood (2003), "Searching for the structure of coping: A review and critique of category systems for classifying ways of coping.," *Psychological Bulletin*, 129 (2), 216–69.
- Strobel, Alexander, Jan Zimmermann, Anja Schmitz, Martin Reuter, Stefanie Lis, Sabine Windmann, and Peter Kirsch (2011), "Beyond revenge: Neural and genetic bases of altruistic punishment," *NeuroImage*, 54 (1), 671–80.
- Tripp, Thomas M. and Yany Grégoire (2011), "When unhappy customers strike back on the Internet," *MIT Sloan Management Review*, 52 (3), 37–44.

- Ward, James C. and Amy L. Ostrom (2006), “Complaining to the masses: The role of protest framing in customer-created complaint web sites,” *Journal of Consumer Research*, 33 (2), 220–30.
- Wetzer, Inge M., Marcel Zeelenberg, and Rik Pieters (2007), “‘Never eat in that restaurant, I did!’: Exploring why people engage in negative word-of-mouth communication,” *Psychology and Marketing*, 24 (8), 661–680.
- Yoshimura, Stephen (2007), “Goals and emotional outcomes of revenge activities in interpersonal relationships,” *Journal of Social and Personal Relationships*, 24 (1), 87–98.
- Zhao, Xinshu, John G. Lynch Jr., and Qimei Chen (2010), “Reconsidering baron and kenny: myths and truths about mediation analysis,” *Journal of Consumer Research*, 37 (2), 197–206.

## **Chapter 2**

# **The Differentiated Effects of Direct versus Indirect Revenge Behaviors on Consumers' Desire for Revenge: An Experimental Approach**

## **Abstract**

Using two scenario-based experiments, Essay 2 studies the effect of the directness of RBs on customers' subsequent desire for revenge while it focuses on the role of justice restoration as the key intervening variable. Study 1 finds that compared to those who take indirect revenge, customers who take direct revenge feel less desire for revenge in the future. It also finds that rumination and justice restoration play role in this mechanism.

Study 2 replicates the findings of Study 1 with two other relevant variables: positive affect and negative affect. It finds that people feel significantly less negative (more positive) after taking direct revenge than indirect revenge. In addition, it finds that the effect of the directness of the RBs on desire for revenge is mediated through the sequence of justice restoration → negative affect.

**Keywords:** Desire for revenge, revenge behaviors, direct versus indirect, positive affect, negative affect, justice restoration, rumination, mediation.

## 2.1 Introduction

Although, from an outcome-oriented perspective, revenge appears difficult to justify (Elster 1990), there is a number of individual and societal functions which provide a good explanation for its occurrence. As societal functions, it is a mean for power regulation and deterrence (Chagnon 1988a). At individual level, revenge (1) balances gains and losses between offender and victim, (2) redistributes power, (3) restores avenger's self-esteem, (4) prevents future damage, and (5) diminishes avenger's negative emotions (Gollwitzer 2009). All these functions, but the last one, are inter-personal; they convey the message "you did something wrong to me" from the avenger to the offender. The last individual function of revenge (i.e., diminishing avenger's negative emotions), however, is intra-personal. While there is consensus about the inter-personal functions of revenge, its intra-personal function has received mixed support.

On one hand, one stream of research supports the famous adage that saying "revenge is sweet" (Bennett 1997; McColl-Kennedy et al. 2009; de Quervain et al. 2004; Wetzer, Zeelenberg, and Pieters 2007). This view suggests that venting negative emotions and enacting revenge satisfy people and make them feel better under some conditions (Gollwitzer and Denzler 2009; Gollwitzer, Meder, and Schmitt 2011).

On the other hand, there are studies that show taking revenge and punishing offenders make people end up feeling worse (Carlsmith, Wilson, and Gilbert 2008; McCullough, Bono, and Root 2007; Yoshimura 2007). This stream of research confirms Walter Weckler quote saying "revenge has no more quenching effect on emotions than salt water has on thirst."

So, which logic prevails: the quenching or the amplifying effect of RBs on desire for revenge? In Essay 2, we answer this question using an experimental approach. In general, the

objective of Essay 2 is twofold. First, it seeks to reconfirm the findings of Essay 1 using experimental approach. Essay 2 contrasts direct and indirect RBs while participants are randomly assigned to RB conditions. In Study 1, we also add a control condition to better understand the responses of customers who enacted revenge versus those who did not take this route. In Study 2, we replicate previous findings using 2 other relevant dependent variables – positive affect and negative affect (Carlsmith et al. 2008) – that capture how well customers feel after taking revenge. The second objective of Essay 2 is to explore possible underlying mechanisms that explain the effect of the RBs on subsequent desire for revenge. To be more specific, we focus on justice restoration as the key intervening variable. Besides, we examine the motivation of protecting other customers, affect, and rumination to understand how they play role in this process.

As first contribution, Essay 2 reconfirms that direct and indirect RBs have different impacts on customers' responses—in terms of affect and desire for revenge. Second contribution of Essay 2, however, is unveiling the process at play that underlies the effects of the RBs on the subsequent desire for revenge. Essay 2 provide evidence supporting the key role of justice restoration in this process. It also shed lights on the role of the other variables along with justice restoration such as affect and rumination.

## **2.2 Study 1: A Scenario-based Experiment**

The results of Essay 1 confirmed our theory that different kinds of RBs (i.e., direct vs. indirect) affect consumers' subsequent desire for revenge in different ways. Essay 1 used a longitudinal design and measured rumination and customers' desire for revenge over a period. Studying rumination and desire for revenge using longitudinal design was an appropriate choice. The gap between the initial incident (i.e., revenge acts) and measurement of the two mentioned

constructs allowed participants to think about their reaction to the firm's failure and assess their internal feelings. Therefore, they had the opportunity to evaluate their desire for revenge while they were ruminating about the incident. Therefore, the methodology of Essay 1 seems appropriate given the purpose of the study.

However, to find robust evidence supporting the causal relationship between RBs and the desire for revenge through suggested mediators, conducting an experiment is inevitable. Further, it is important to know that conducting systematic studies on RBs is a difficult task to perform, particularly in a marketing context. RBs – in a firm-customer relationship context – are normally triggered by service failure and double deviation (Gelbrich 2010; Grégoire, Laufer, and Tripp 2010; Grégoire, Tripp, and Legoux 2009; Joireman et al. 2013; Keeffe, Russell-Bennett, and Tombs 2008). To study RBs in either a lab setting or a field study, a researcher needs to make participants encounter service failures. Observing or creating this kind of confrontation normally raises some ethical issues and is expensive and time consuming due to a low incidence rate. Moreover, firms' managers are normally reluctant to impose service failures on their customers on purpose (Smith and Bolton 1998). Employing scenario-based experiments would address these concerns. It also provides researchers with a level of control that otherwise would be difficult to attain in field studies. Furthermore, it reduces memory biases and rationalization, which mostly happen in critical incident techniques (Smith, Bolton, and Wagner 1999).

Another concern that is addressed by conducting an experiment is the possibility that the results of Essay 1 can be explained by non-observed individual differences between complainers who are more prone to enact direct RBs versus those who are more prone to enact indirect RBs. Rather than the type of RBs they enacted, these non-observed individual differences could explain the different patterns. Employing scenario-based experiment addresses this issue by assigning

participants randomly to different RBs condition, hence controlling for other individual differences.

In sum, designing Study 1 using a scenario-based experimental approach makes it possible to confirm previous findings using a different sample and method, and more importantly, enables us to test for causal relationship and unfold the process at play.

## **2.2.1 Theoretical Development**

### **2.2.1.1 Main Effect**

Study 1 extends the logic of Essay 1 by contrasting the effects of direct and indirect RBs on subsequent desire for revenge. This contrast was not possible in Essay 1, given its correlational nature. As discussed in Essay 1, literature has supported both “revenge is sweet” (Bechwati and Morrin 2003; Gollwitzer and Denzler 2009; Gollwitzer et al. 2011; McColl-Kennedy et al. 2009; Wetzler et al. 2007) and “salt water” metaphor (Bushman 2002; Carlsmith et al. 2008; McCullough et al. 2007; Yoshimura 2007). To reconcile these two seemingly opposite schools of thought, we claim that the way consumers enact revenge against the firms affect their subsequent desire for revenge differently. We predict that a “revenge is sweet” effect occurs when consumers seek revenge by confronting a firm and its employees and engage in direct RBs. This kind of acts fulfill angry consumers’ desire for revenge and give them a chance to get even with the firms and settle the score. In fact, by engaging in direct RBs, consumers make sure that the firm has been punished for what happened (Gollwitzer and Bushman 2012) and it does not treat other consumers in the same manner.

However, if consumers avoid a direct confrontation and seek revenge against a firm through a third-party entity, they engage in indirect RBs. As found in Essay 1, the effect of indirect RBs on consumers' desire for revenge resembles the effect of salt water on thirst. Since, indirect RBs happen beyond the scope of a firm and keep angry consumers away from the source of conflict, they do not find the opportunity to express and vent their anger directly at the firm. This process does not guarantee that the firm will receive what it deserves. Hence, it results in amplification of desire for revenge.

**H4:** Engaging in direct RBs makes customers feel less subsequent desire for revenge, compared to engaging in indirect RBs.

The design of Study 1 makes it also possible to compare customers who engage in RBs to those who do nothing after experiencing service failure and double deviation. In their study, Carlsmith and colleagues (2008) find that people who do not punish an offender feel better compared to those who do so. They claim that punishment causes people to think more (i.e., ruminate) about the incidence; but those who do not punish will "move on." In fact, they show that people punish to attain a better feeling; but their action has exactly the opposite effect.

Building up on their findings, we speculate that customers who do not engage in RBs would feel less desire for revenge, compared to those who engage in either direct or indirect RBs. Engaging in RBs makes them think more about the firm's failure. Therefore, revenge acts trigger rumination in customers' mind and they will be reluctant to "let it go" and eventually feel more desire for revenge. Formally, we predict that:

**H5:** Engaging in no revenge behaviors makes customers feel less desire for revenge compared to engaging in revenge behaviors.

### 2.2.1.2 Mediation

Past research suggests that there are several potential mechanisms that probably play role in mediating the effect of RBs on subsequent desire for revenge such as rumination (Bushman 2002; Carlsmith et al. 2008; McColl-Kennedy et al. 2009; McCullough et al. 2001; Strizhakova, Tsarenko, and Ruth 2012), protecting others (Gollwitzer and Denzler 2009; de Quervain et al. 2004; Ward and Ostrom 2006), delivering a message (Gollwitzer and Denzler 2009), teaching the firm a lesson (Gollwitzer et al. 2011), and justice restoration (Funches, Markley, and Davis 2009; McCullough, Kurzban, and Tabak 2013; Orth 2003; Zourrig, Chebat, and Toffoli 2009).

Among possible mechanisms, Study 1 examines the role of rumination and justice restoration in explaining the effect of RBs on subsequent desire for revenge. The role of rumination is studied to reconfirm the findings of Essay 1. However, the focus of Essay 2 is on the mediating role of justice restoration. The critical role of justice in inter-personal relationship justifies its choice. Moreover, service failures, double deviation and engaging in revenge acts (i.e., unpleasant and/or unfair incidents) all are triggering factors for both rumination (Carlsmith et al. 2008; McCullough et al. 2007; Strizhakova, Tsarenko, and Ruth 2012) and justice restoration (Bonifield and Cole 2007; Grégoire et al. 2010; Smith, Bolton, and Wagner 1999). Therefore, it is interesting to examine how these two constructs together explain the effect of the RBs on subsequent desire for revenge.

*Rumination.* Rumination is defined as a coping strategy characterized by a “passive and repetitive focus on the negative and damaging features of a stressful transaction” (Skinner et al. 2003). After experiencing a negative event (e.g., double deviation), rumination makes people re-experience cognitive, affective, and behavioral outcomes associated with the event with a lesser

intensity (McCullough et al. 1998). Rumination also motivates seeking revenge against offender (McCullough et al. 1998), increases negative emotions (e.g., anger) and reduces one's ability to forgive (McCullough et al. 2007). Past studies show that venting negative emotions leads individuals to feeling of relief and well-being (Bennett 1997), discharge their negative emotions and results in less rumination about the cause of anger and dissatisfaction (Kowalski 1996). In contrast, inhibition results in diminished cognitive process ability and increased rumination (Pennebaker 1993; Pennebaker 1997).

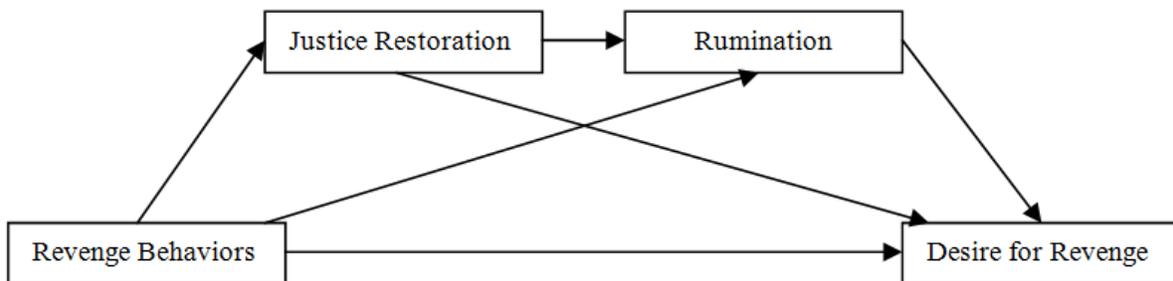
*Justice Restoration.* Justice is a fundamental concept in revenge and service literature (Barclay, Skarlicki, and Pugh 2005; Grégoire and Fisher 2008; Grégoire et al. 2010; Hammock et al. 1989; Stillwell, Baumeister, and Del Priore 2008; Tax, Brown, and Chandrashekar 1998). It is an essential element in justifying people reactions in conflict episodes. It has been shown that, in their relationship, people tend to maintain equity (Walster, Berscheid, and Walster 1973) and avoid conflicts. They attempt to keep their relationship in such a way that its costs are comparable to its benefits. If an incident disturbs the equilibrium and seems unfair in one's eyes, injustice experience that is associated with intense feelings of anger and rage prevails (Harlos and Pinder 2000). Perceived injustice is also a triggering factor that drives people to engage in revenge acts (Aquino, Tripp, and Bies 2001; Bechwati and Morrin 2003; Skarlicki and Folger 1997). People seek revenge in pursuit of justice restoration. In order to restore justice, they may even engage in aggressive behaviors (Denzler, Förster, and Liberman 2009; Hammock et al. 1989a). We define justice restoration as one's perception of fairness associated with the outcomes of his revenge acts in a conflict episode.

To examine the mediating role of rumination and justice restoration – as consecutive mediators - explaining the effects of RBs on subsequent desire for revenge, we argue that there are

two rival explanations; one in which justice restoration precedes rumination and another one in which rumination precedes justice restoration.

*Justice restoration precedes rumination.* In an exchange relationship, such as customer-firm relationship, justice plays a crucial role. Violation of justice norms triggers involved parties to bring back the balance into relationship (Grégoire et al. 2010). After facing service failure and double deviation, if customers cannot restore justice by demanding reparation, they make use of revenge acts to get even with the other party (Grégoire and Fisher 2008).

**Figure 3: Mediating effect of revenge behaviors on desire for revenge (Justice restoration precedes rumination)**



Drawing on justice theory (Bechwati and Morrin 2003; Grégoire and Fisher 2008), we argue that after RBs, customers evaluate to what extent justice has been restored. Dissatisfying assessment of the outcomes of revenge acts (i.e., customers' revenge acts have not been adequate compared to what the firm has done) triggers rumination. Rumination, in turn, motivates customers to seek revenge against the firm (McCullough et al. 1998). In other words, after taking revenge if a customer perceives that the justice has not been restored – which is a typical assessment (Stillwell et al. 2008) - he starts ruminating about the incidence; and rumination then triggers more desire for revenge. Therefore, we hypothesize (Figure 3):

**H6:** The effects of the RBs on subsequent desire for revenge is mediated by a “justice restoration → rumination” process.

*Rumination precedes justice restoration.* Another possible explanation justifying the effect of the RBs on subsequent desire for revenge is through rumination and justice restoration in a way that rumination precedes justice restoration. We argue that after taking revenge against the firm, customers start ruminating in order to cope with the unpleasant process (Skinner et al. 2003). Since customers feel victimized even after taking revenge (Stillwell, Baumeister, and Del Priore 2008a), rumination motivates them to restore justice to the full extent and by engaging in more revenge acts to give the firm what it deserves. Consequently, customers’ motivation to restore justice increases their desire for revenge. Therefore, we hypothesize (Figure 4):

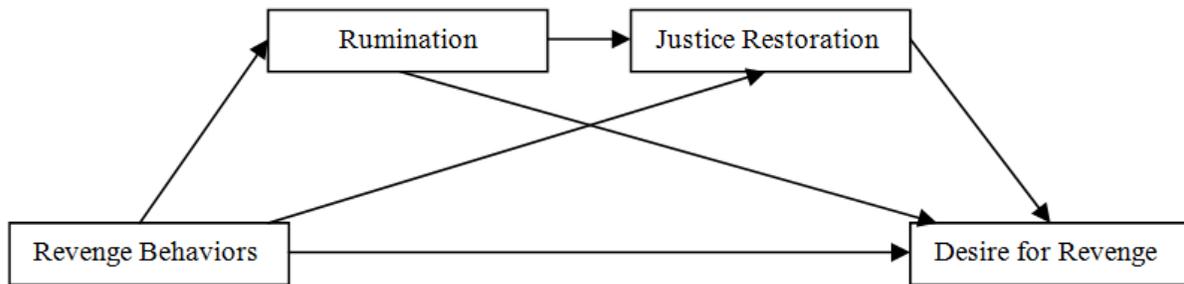
**H7:** The effects of the RBs on subsequent desire for revenge is mediated by a “rumination → justice restoration” process.

### **2.2.2.1 Participants and Design**

Using the above-mentioned procedure, 171 MTurk workers were recruited to participate in our survey. To eliminate the effects of individual differences, participants were randomly assigned to each condition. Of the participants, 66.7% were male (N = 114) and the average age of participants was 30.87 years ( $SD = 8.86$ ).

Participants were randomly exposed to one of the four different conditions that differed with respect to the RBs undertaken in response to service failure. A control group was also added to enable us to compare the desire for revenge of customers who engaged in RBs to those who did not take revenge.

**Figure 4: Mediating effect of revenge behaviors on desire for revenge (Rumination precedes justice restoration)**



The scenario described a service failure that happened in a “truck rental” firm. Participants were asked to picture themselves in the following situation: You had reserved a truck for your moving two weeks ago. The day before the moving day, you received an email indicating that the pick-up location of the truck has changed to a new location that is 15 miles further away. Since, it is after the firm’s business hours, no one answers your calls. You have to move out by tomorrow and cannot find any other truck available. So, rescheduling the moving is not an option (see Appendix 2).

After reading the scenario, participants in the control group were asked to fill out the questionnaire. However, the rest of participants were assigned to four conditions representing the four RBs of interest; namely “marketplace aggression”, “vindictive complaining”, “negative word-of-mouth”, and “third-party complaining for legal sources”. Participants, in any of the four RB conditions, read about their reaction to the service failure when they went to pick-up location. After reading the scenario, they were asked to fill out the questionnaire measuring their “desire for revenge” as outcome variable and “rumination” and “justice restoration” as possible mediators playing role in the process and control variables.

### 2.2.2.2 Measurement

Drawing on past research, relevant scales were administered to participants. All measures were reflective constructs and used a seven-point Likert response format (1 = "Strongly disagree" and 7 = "Strongly agree"). *Desire for revenge* was measured by the scale developed by Aquino et al. (2006). This scale has been properly adapted and used in consumer context (Grégoire and Fisher 2006; Grégoire et al. 2010; Grégoire et al. 2009). The construct was measured using three items, including: "I wanted to take actions to get the firm in trouble," "I wanted to cause inconvenience to the firm," and "I wanted the firm to get what it deserves" ( $M = 4.48$ ,  $SD = 1.54$ ,  $\alpha = .90$ ). We dropped two items in the scale because these three items were a better fit to the context of our study. These three items measure stronger desire for revenge, because they are more inclined to the RBs instead of a mere desire.

Rumination was measured by the same scale as the one used in Essay 1 ( $M = 5.21$ ,  $SD = 1.32$ ,  $\alpha = .94$ ). *Justice restoration* was measured with a four-item scale (influenced by Smith et al. 1999; Tax et al. 1998), including "my reaction to the firm's failure balanced our relationship," "my reaction ensured that my loss is not the firm's gain," "my reaction made our relationship fair" and "my reaction made me feel that the firm got what it deserved" ( $M = 3.81$ ,  $SD = 1.45$ ,  $\alpha = .87$ ).

## 2.2.3 Results

### 2.2.3.1 Manipulation Checks

Four items, each representing one RB in the study, were included at the end of the questionnaire to test whether the manipulation of the RBs was perceived as intended. The four items were: "I was unpleasant with the firm's representative" representing vindictive complaining

(Hibbard, Kumar, and Stern 2001); “I damaged property belonging to the firm” characterizing marketplace aggression (Douglas and Martinko 2001); “I spread negative word-of-mouth about the firm” standing for negative word-of-mouth (Maxham and Netemeyer 2002); and “I wanted to find a legal remedy to my problem” showing third-party complaining. These items were measured using Likert scale ranging from 1=strongly disagree to 7=strongly agree.

**Table 5: Manipulation checks (t-tests) of Study 1 of Essay 2**

	Conditions				
	Marketplace aggression	Vindictive complaining	Negative word-of-mouth	Third-party complaining	Control group
“I damaged property belonging to the firm” (Comparing “marketplace aggression” condition to...):	<i>M</i> = <b>5.89</b> <i>SD</i> = 1.39	<i>M</i> = 2.24 <i>SD</i> = 1.54 <i>t</i> (166) = 81.61***	<i>M</i> = 3.12 <i>SD</i> = 1.87 <i>t</i> (166) = 47.84***	<i>M</i> = 2.21 <i>SD</i> = 1.55 <i>t</i> (166) = 84.54***	<i>M</i> = 2.94 <i>SD</i> = 1.89 <i>t</i> (166) = 54.86***
“I was unpleasant with the firm’s representative” (Comparing “vindictive complaining” condition to...):	<i>M</i> = 4.60 <i>SD</i> = 1.56 <i>t</i> (166) = 13.47***	<i>M</i> = <b>6.00</b> <i>SD</i> = .90	<i>M</i> = 4.53 <i>SD</i> = 1.58 <i>t</i> (166) = 14.66***	<i>M</i> = 4.26 <i>SD</i> = 1.88 <i>t</i> (166) = 20.41***	<i>M</i> = 4.26 <i>SD</i> = 1.74 <i>t</i> (166) = 20.88***
“I spread negative word-of-mouth about the firm” (Comparing “negative word-of-mouth” condition to...):	<i>M</i> = 3.94 <i>SD</i> = 1.97 <i>t</i> (166) = 11.81**	<i>M</i> = 4.21 <i>SD</i> = 1.69 <i>t</i> (166) = 7.58**	<i>M</i> = <b>5.38</b> <i>SD</i> = 1.35	<i>M</i> = 4.79 <i>SD</i> = 1.77 <i>t</i> (166) = 1.94	<i>M</i> = 4.31 <i>SD</i> = 1.84 <i>t</i> (166) = 6.50*
“I wanted to find a legal remedy to my problem” (Comparing “third-party complaining” condition to...):	<i>M</i> = 3.34 <i>SD</i> = 1.89 <i>t</i> (166) = 34.15***	<i>M</i> = 3.24 <i>SD</i> = 1.79 <i>t</i> (166) = 36.0***	<i>M</i> = 4.15 <i>SD</i> = 1.71 <i>t</i> (166) = 14.84**	<i>M</i> = <b>5.74</b> <i>SD</i> = 1.33	<i>M</i> = 3.83 <i>SD</i> = 1.72 <i>t</i> (166) = 21.70***

\**p* < .05

\*\**p* < .01

\*\*\**p* < .001

To validate that participants in a certain condition perceived the correct assigned behaviors, a series of pairwise comparisons was performed. Participants in each specific condition had a significantly higher score on the related item, compared to the other items capturing the other

behaviors ( $p$ 's  $< .05$ ). The results show that participants in each condition correctly recognized the revenge acts in the assigned scenario (Table 5).

### 2.2.3.2 Main Effect

A one-way ANOVA showed that the RBs have a significant main effect on subsequent desire for revenge ( $F(4, 166) = 4.52, p < .01$ ). Supporting H4, the planned contrasts reveal that there is less subsequent desire for revenge for participants in the two direct conditions. Specifically, participants in the marketplace aggression condition ( $M_{Marketplace\ aggression} = 4.23, SD = 1.61$ ) have significantly less subsequent desire for revenge afterwards compared to those in the negative word-of-mouth ( $M_{Negative\ word-of-mouth} = 5.03, SD = 1.25; t(67) = -2.30, p < .05$ ) and third-party complaining conditions ( $M_{Third-party\ complaining} = 5.06, SD = 1.49; t(67) = -2.22, p < .05$ ). The desire for revenge of participants in the vindictive complaining condition ( $M_{Vindictive\ complaining} = 4.23, SD = 1.53$ ) was also significantly less than the subsequent desire for revenge of those in the negative word-of-mouth ( $t(65) = -2.34, p < .05$ ) and third-party complaining conditions ( $t(65) = -2.24, p < .05$ ). In addition, both direct RBs and both indirect RBs respectively did not significantly differ from each other (all  $ps > .97$ ).

To examine H5, the control condition was tested against all the RBs conditions. Participants in the indirect RBs conditions felt significantly more desire for revenge, compared to those in the control condition ( $M_{Control} \& M_{Negative\ word-of-mouth}: t(67) = 3.54, p < .01; M_{Control} \& M_{Third-party\ complaining}: t(67) = 3.35, p < .01$ ). However, in contrast with the prediction of H5, the desire for revenge of participants in the control condition did not differ significantly from those in the direct RBs conditions ( $M_{Control} \& M_{Marketplace\ aggression}: t(68) = 1.02, p = .31; M_{Control} \& M_{Vindictive\ complaining}: t(66) = 1.04, p = .30$ ).

### 2.2.3.3 Mediation Analyses

To perform mediation analyses, following Zhao et al's (2010) recommendation, we performed bootstrap mediation analysis to see whether suggested mediators explain the effect of the RBs on the subsequent desire for revenge. In order to do so, we used model 6 of macro "PROCESS" in SPSS (Hayes 2013a). This macro uses bootstraps to carry out mediation analyses. Bootstraps has been shown to perform better than Sobel test (Preacher and Hayes 2004, 2008). In the analysis, we used 10,000 bootstrap re-samples and a bias-corrected 95% confidence interval.

*Justice restoration precedes rumination.* To test H6, model 6 of PROCESS is used. This macro estimates 3 different indirect effects that are: path 1) RBs → justice restoration → desire for revenge, path 2) RBs → justice restoration → rumination → desire for revenge, and path 3) RBs → rumination → desire for revenge. To support H3, path 2 must be significant. Here, we provide the results of testing mediation of all 3 paths:

*Path 1: RBs → justice restoration → subsequent desire for revenge.* Bootstrap analyses show that indirect effect of the RBs on subsequent desire for revenge through justice restoration is significant within 95% interval; because it does not include zero ( $b = -.017$ ,  $SE = .011$ ,  $CI: [-.046$  to  $-.001]$ ).

*Path 2: RBs → justice restoration → rumination → subsequent desire for revenge.* Bootstrap analyses revealed that indirect effect of the RBs on subsequent desire for revenge is mediated through justice restoration and rumination as consecutive mediators. A bootstrap estimate of indirect effect proved significance within 95% interval that did not include zero ( $b = -.011$ ,  $SE = .007$ ,  $CI: [-.031$  to  $-.002]$ ). This results support H6.

*Path 3: RBs → rumination → desire for revenge.* Indirect effect of RBs on desire for revenge through rumination is not significant ( $b = -.009$ ,  $SE = .021$ ,  $CI: [-.051 \text{ to } .031]$ ).

*Rumination precedes justice restoration.* To test H7, we again used model 6 of PROCESS. The estimated paths are 1) RBs → rumination → desire for revenge, 2) RBs → rumination → justice restoration → desire for revenge, and 3) RBs → justice restoration → desire for revenge. To support H7, path 2 must be significant.

*Path 1: RBs → rumination → subsequent desire for revenge.* Bootstrap analyses show that indirect effect of the RBs on desire for revenge through rumination is not significant ( $b = -.020$ ,  $SE = .021$ ,  $CI: [-.064 \text{ to } .019]$ ).

*Path 2: RBs → rumination → justice restoration → subsequent desire for revenge.* Bootstrap analyses revealed that indirect effect of the RBs on subsequent desire for revenge is not mediated through rumination and justice restoration as consecutive mediators ( $b = -.001$ ,  $SE = .002$ ,  $CI: [-.008 \text{ to } .001]$ ). This result does not support H7.

*Path 3: RBs → justice restoration → desire for revenge.* Indirect effect of the RBs on subsequent desire for revenge through justice restoration is significant within 95% interval; because it does not include zero ( $b = -.015$ ,  $SE = .010$ ,  $CI: [-.041 \text{ to } -.001]$ ).

*Other possible mediators.* Along with justice restoration and rumination, we investigated at other possible mechanism that may explain the effect of RBs on desire for revenge. We speculated that the desire for protecting other customers or teaching a lesson to the firm play roles in conveying the effect of RBs to subsequent desire for revenge. However, mediation analyses showed that none of the indirect effects were significant (Teaching a lesson:  $b = -.015$ ,  $SE = .012$ ,  $CI: [-.049 \text{ to } .002]$ ; Protecting other customers:  $b = -.003$ ,  $SE = .011$ ,  $CI: [-.027 \text{ to } .017]$ ).

## **2.2.4 Discussion**

Study 1 extends the findings of Essay 1 using an experimental approach and demonstrates that different RBs (i.e., direct vs. indirect) have differential effects on the subsequent desire for revenge following the very same service failure. As expected, the subsequent desire for revenge of the participants in the indirect RB conditions is significantly greater than that of the participants in the direct RB conditions. These results support H4 and suggest that direct RBs are more effective than indirect RBs to soothe desire for revenge. Interestingly, Study 1 finds that when people do not enact revenge, their subsequent desire for revenge would be weaker compared to those who engage in indirect RBs. However, the findings demonstrate that the quenching effect of enacting direct revenge is as effective as resisting the temptation of revenge.

As second contribution, the results of Study 1 reveal the critical role of justice restoration in explaining the effect of RBs on subsequent desire for revenge. The mediation analyses show that justice restoration is the key element in determining one's subsequent desire for revenge. Findings of Study 1 also prove that justice restoration  $\rightarrow$  rumination partially explains the effect of RBs on subsequent desire for revenge which supports H6.

## **2.3 Study 2: Justice Restoration and Affect**

Study 2 addresses the limitations of previous studies in four ways. First, it replicates H1, H2, and H4 by using two other relevant dependent variables—positive affect and negative affect (Carlsmith, Wilson, and Gilbert 2008)—that capture how well customers feel after enacting revenge. Second, it focuses on justice restoration as the key intervening variable. We also control for the motivation to protect other consumers as an alternative mechanism to explain the effect of

the RBs on customers' subsequent responses. Third, this study examines the longitudinal unfolding of the process at play by measuring the key dependent variables (i.e., affect and desire for revenge) before and after the manipulation of the RBs. Fourth, only two general RBs—one for direct revenge and one for indirect revenge—are used (see Appendix 3). These two conditions provide a clearer manipulation of the directness of the RB, so we can better isolate the impact of this dimension.

### **2.3.1 Theoretical Development**

#### **2.3.1.1 Main Effect**

The overall purpose of this dissertation is to understand how customers feel after enacting (direct or indirect) revenge. To do so, previous studies focus on customers' fulfillment of their subsequent desire for revenge because of the relevance of this variable for managers, which is a strong predictor of concrete RBs (Grégoire, Laufer, and Tripp 2010). It should be noted, however, that prior research interested in similar issues has paid special attention to individuals' affects, which is a more direct way to capture individuals' general feelings. For instance, Carlsmith et al. (2008) use positive and negative affects as their key dependent variables. Positive affect is defined as the extent to which a person feels enthusiastic, active and satisfied about a given situation; whereas negative affect is broadly defined as a subjective lack of pleasure that includes feelings such as anger, frustration and disgust about a situation (Watson, Clark, and Tellegen 1988). For completeness, Study 2 replicates H1, H2, and H4 using these two affective dimensions. Specifically, we expect that *direct* RB should lead to a decrease in negative affect over time (H1); that *indirect* RB should sustain one's negative affect over time (H2); and that engaging in *direct* RB makes customers feel less negative at Time 2, compared to *indirect* RB (H4). These predictions

are the same but reversed for positive affect.

### **2.3.1.2 Mediation**

Study 2 investigates the role of justice restoration more in depth. Based on the preliminary results of Study 1, we believe different impact of the direct and indirect RBs on subsequent desire for revenge is explained by the underlying role of justice restoration. The notion of revenge is closely related to the norm of justice in two ways: 1) lack of justice may trigger customer revenge, 2) which in turn becomes a mechanism to restore the loss in justice.

First, research in marketing and psychology has consistently found that the three dimensions of justices and their interactions are strong antecedents of a desire for revenge ((Barclay, Skarlicki, and Pugh 2005; Grégoire, Laufer, and Tripp 2010; Hammock et al. 1989b; Stillwell, Baumeister, and Del Priore 2008b; Tax, Brown, and Chandrashekar 1998). Second and more important in this research is the fact that revenge is viewed as an effective mechanism to restore justice (Grégoire and Fisher 2008). Specifically, we posit that justice restoration is the key process explaining the differentiated effects between direct and indirect RBs. When customers *directly* get revenge, the firm is aware of their actions, and these customers have an immediate impression that they have settled the score by hurting the firm. These customers find comfort knowing that the firm understands they are responsible for the caused inconvenience (Gollwitzer and Denzler 2009). These overt acts of direct revenge then lead customers to feel that justice is restored, and thus, they feel a lesser desire for revenge.

In turn, the perception of justice restoration is lesser for *indirect* acts of revenge. Although these covert behaviors—such as online public complaining and negative word-of-mouth—could

create costly damages for firms, these actions are not as satisfying for customers; they are uncertain that the firms will understand they are at the origin of these consequences, which is a necessary condition to perceive that justice has been restored (Gollwitzer and Denzler 2009). It is not just a matter of the firm suffering; it is more a matter of the firm suffering *because of customers' actions*. Thus, indirect RBs lead to lesser justice restoration.

We also argue for a double mediation process involving justice restoration and its effects on negative affect and positive affect. First, perception of justice is well known to trigger a change in negative affect and anger (Walster, Berscheid, and Walster 1973), which in turn should influence a desire for revenge (Grégoire, Laufer, and Tripp 2010). If justice is (not) restored as a consequence of direct (indirect) revenge, customers should feel less (more) negative affect, which in turn would influence their subsequent desire for revenge (McCullough et al. 1998).

Consistent with prior research (Xu, Cenfetelli, and Aquino 2012), customers should also feel more (less) positive affect if they perceive that justice is (not) restored to some extent. Relying on research suggesting that positive affect makes customers more agreeable with others (Berry et al. 2005; Bradfield and Aquino 1999; Kluwer and Karremans 2009), we suggest that positive affect should reduce one's desire for revenge. Overall, we suggest two processes involving the sequences "justice restoration → affect":

**H8a:** The effect of the directness of revenge behaviors on subsequent desire for revenge is mediated by a "justice restoration → negative affect" process.

**H8b:** The effect of the directness of revenge behaviors on subsequent desire for revenge is mediated by a "justice restoration → positive affect" process.

## 2.3.2 Method

### 2.3.2.1 Participants and Design

Participants were recruited through an online panel managed by Quattrics.com. To be eligible to take the survey, participants had to be residents of the United States and at least 18 years old. Overall, 206 complete questionnaires were collected. The youngest participant was 18 years old and the oldest was 82 ( $M = 42.19$ ,  $SD = 14.20$ ). The sample was 50% female.

The study followed a pretest-posttest experimental design to compare the degree of change in desire for revenge and affect occurring because of direct versus indirect revenge. Like Study 1, participants read a scenario about a service failure for a “truck rental” firm (see Appendix 3). They were asked to picture themselves in a situation in which their reservation was changed at the last minute, and they could not reschedule their move. At this point, we measured their desire for revenge and affective states (i.e., at Time 1). The participants were then randomly assigned to one of two conditions: direct versus indirect RB. In the direct revenge condition, the customer gets back at the company by paying the rental fee with a large amount of change. We chose this direct way to get revenge because paying in such a way is legal and civil; it is just irritating and would cause trouble for the company. In contrast, in the indirect revenge condition, the customer gets back at the company by spreading negative word-of-mouth among his/her friends and asks them to stop considering this company in the future. Once the participants had read the scenario, their desire for revenge and affective states were measured one more time (i.e., at Time 2). We also included measures of perceived protection of other customers as an alternative process at Time 2. Finally, participants completed questions about the directness manipulations and the presence of confounds.

### 2.3.2.2. Measurement

We used the same scale for desire for revenge as Study 1 ( $M_{\text{Time1}} = 4.23$ ,  $SD_{\text{Time1}} = 1.56$ ;  $\alpha_{\text{Time1}} = .85$ ;  $M_{\text{Time2}} = 4.61$ ,  $SD_{\text{Time2}} = 1.63$ ,  $\alpha_{\text{Time2}} = .93$ ). Using the same scales as Carlsmith et al. (2008), participants rated to what extent they felt positive and negative on a 5-point scale anchored by *not at all* (1) versus *extremely* (5), both before and after taking revenge. Positive affect was measured using three items including pleased, positive and satisfied ( $M_{\text{Time1}} = 1.45$ ,  $SD_{\text{Time1}} = .93$ ;  $\alpha_{\text{Time1}} = .94$ ;  $M_{\text{Time2}} = 2.17$ ,  $SD_{\text{Time2}} = 1.21$ ,  $\alpha_{\text{Time2}} = .93$ ). Negative affect comprised two items: negative and irritated ( $M_{\text{Time1}} = 3.97$ ,  $SD_{\text{Time1}} = 1.16$ ;  $\alpha_{\text{Time1}} = .85$ ;  $M_{\text{Time2}} = 3.11$ ,  $SD_{\text{Time2}} = 1.31$ ,  $\alpha_{\text{Time2}} = .85$ ).

Justice restoration was measured with the same scale as Study 1 ( $M_{\text{Time2}} = 3.92$ ,  $SD_{\text{Time2}} = 1.40$ ,  $\alpha_{\text{Time2}} = .86$ ). We included two additional items to measure to what extent participants believed that the RB protected other customers. They read “I believe my reaction would stop the company from taking advantage of its customers”, and “I believe my reaction taught the company how to treat its customers” ( $M_{\text{Time2}} = 4.06$ ,  $SD_{\text{Time2}} = 1.74$ ,  $\alpha_{\text{Time2}} = .75$ ).

## 2.3.3 Results

### 2.3.3.1 Manipulation Checks

To check the validity of the directness manipulation, we ran an ANOVA with a three-item scale that captures the extent to which a RB is indirect or direct. These items capture the extent to which the participants understand 1) that their actions would affect the company immediately; 2) that the negative consequences of their reaction would be apparent to the company; and 3) that the supervisor would be aware of their action ( $M_{\text{Time2}} = 4.55$ ,  $SD_{\text{Time2}} = 1.66$ ,  $\alpha_{\text{Time2}} = .87$ ). Our

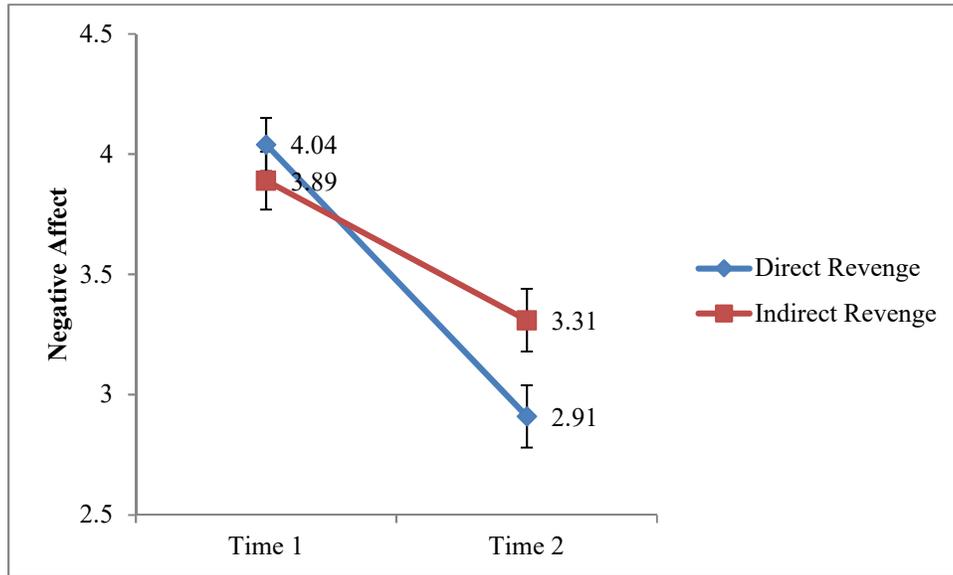
directness manipulation had the intended effect on this scale ( $M_{\text{Direct}} = 5.45$  vs.  $M_{\text{Indirect}} = 3.64$ ;  $F(1, 204) = 86.178, p < .001$ ). To rule out the possibilities of confounds, we tested that the directness manipulation do not affect participants' perception about how powerful they were ( $M_{\text{Direct}} = 3.67$  vs.  $M_{\text{Indirect}} = 3.33, NS$ ); whether they would be afraid of people's judgment about the RB they took ( $M_{\text{Direct}} = 3.52$  vs.  $M_{\text{Indirect}} = 3.79, NS$ ); or whether different RBs would affect their perception on how brave they were to stand up for their own rights ( $M_{\text{Direct}} = 4.92$  vs.  $M_{\text{Indirect}} = 4.52, NS$ ).

### 2.3.3.2 Main Effect

*Negative Affect.* As illustrated by the raw means in Figure 5, negative affect decreased in both conditions. However, the decrease in negative affect was more pronounced in the direct RB condition ( $M_{\text{Time2-Time1}} = -1.13, SD = 1.41$ ) as compared to the indirect RB condition ( $M_{\text{Time2-Time1}} = -0.58, SD = 1.25; t(204) = 2.93, p < .01$ ). H1 and H2 are supported: we note a steep decrease for direct RB (H1), whereas the negative affect response is more sustained for indirect RB (H2).

To test H4 and the difference in negative affect at Time 2, we conducted an ANCOVA with the directness manipulation as a fixed factor and negative affect at Time 1 as a covariate. This is the recommended analysis for a pretest-posttest design because it addresses the issue of regression towards the mean (Dimitrov and Rumrill 2003). Accounting for negative affect at Time 1 ( $F(1,203) = 68.92; p < .001$ ), the analysis reveals a significant effect of the directness manipulation on subsequent desire for revenge ( $F(1, 203) = 7.28, p < .01$ ). The estimated marginal means show that negative affect is significantly lower after direct than indirect RB ( $M_{\text{direct\_Time2}} = 2.71; M_{\text{indirect\_Time2}} = 3.10$ )—this result is supportive of H4.

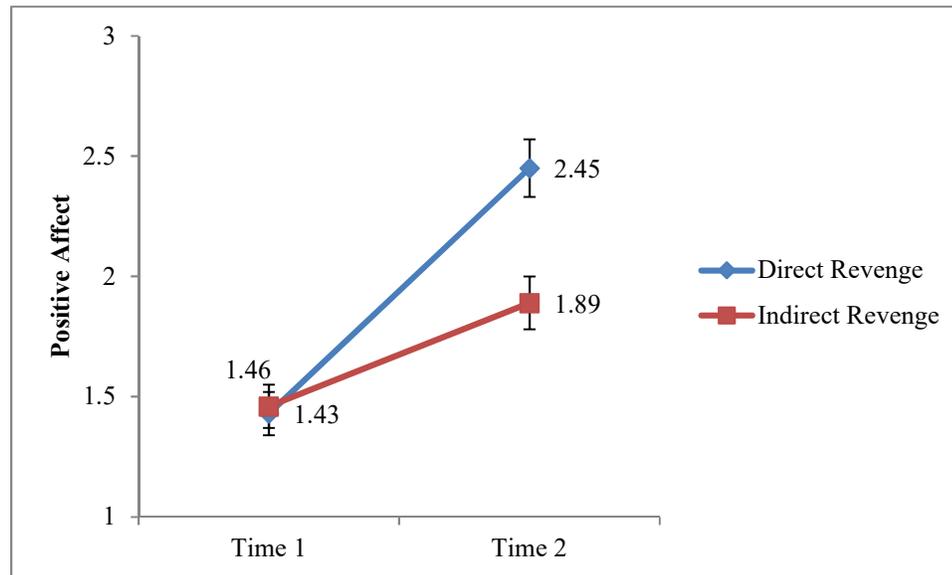
**Figure 5: Negative affect at time 1 and time 2 in function of direct and indirect revenge**



*Positive Affect.* As illustrated in Figure 6, although positive affect augments in both conditions, the mean increase is more pronounced for direct RB ( $M_{Time2-Time1} = 1.02$ ,  $SD = 1.26$ ) compared to indirect RB ( $M_{Time2-Time1} = 0.44$ ,  $SD = 1.06$ ;  $t(204) = 3.59$ ,  $p < .001$ ); again these results are consistent with H1 and H2. We used the same procedure (as for negative affect) to test H4. This ANCOVA revealed that, after controlling for positive affect at Time 1 ( $F(1,203) = 40.65$ ,  $p < .001$ ), participants experienced more positive affect after direct than indirect RB ( $M_{direct\_Time2} = 2.46$ ;  $M_{indirect\_Time2} = 1.89$ ;  $F(1,203) = 14.51$ ,  $p < .001$ ); H4 is supported.

*Desire for Revenge.* The same approach applied to the change in desire for revenge. It first showed that indirect RB led to a significantly sharper increase in desire for revenge ( $M_{Time2-Time1} = 0.57$ ,  $SD = 1.39$ ) compared to direct RB ( $M_{Time2-Time1} = 0.18$ ,  $SD = 1.36$ ;  $t(204) = 2.038$ ,  $p < .05$ ). This result indicates that there is a more favorable effect for direct RB, after which desire for revenge remains stable (i.e., revenge is sweet); and a less favorable effect for indirect RB, for which this desire increases (i.e., revenge is like salt water).

**Figure 6: Positive affect at time 1 and time 2 in function of direct and indirect revenge**



The ANCOVA with the directness manipulation as fixed factor and the prior desire for revenge (Time 1) as a covariate ( $F(1,203) = 128.68, p < .001$ ) yielded no significant effect of the manipulation on desire for revenge at Time 2 ( $F(1,203) = 1.65; NS$ ). Although the means are in the expected direction ( $M_{\text{indirect\_Time2}} = 4.66; M_{\text{direct\_Time2}} = 4.44$ ), the difference is not significant and H4 is not supported for the desire for revenge.

### 2.3.3.3 Mediation

*Justice Restoration.* Since justice restoration is only measured at Time 2, a one-way ANOVA with the directness manipulation as the independent variable was conducted. We find a significant difference of perceived justice restoration, in the expected direction, between those who took direct RB ( $M_{\text{Direct}} = 4.15, SD = 1.38$ ) compared to indirect RB ( $M_{\text{Indirect}} = 3.69, SD = 1.39, F(1, 204) = 5.66, p < .05$ ). Participants perceive that justice is better restored after a direct than an indirect RB.

*Protection of Others.* We also tested a rival mediator—that is, the variable “protection of others.” We argue that direct RB could have a greater effect on the protection of other customers, compared to indirect RB (Ward and Ostrom 2006). However the one-way ANOVA did not reveal any impact of the directness manipulation on perceived protection of other customers ( $M_{\text{Direct}} = 4.14$ ,  $SD = 1.72$ ;  $M_{\text{Indirect}} = 3.98$ ,  $SD = 1.76$ ;  $F(1,204) = .46$ , *NS*).

*Serial Multiple Mediations.* Consistent with H8a, we first tested the following path: indirect-direct RBs  $\rightarrow$  justice restoration  $\rightarrow$   $\Delta$  negative affect  $\rightarrow$   $\Delta$  desire for revenge (for H8a). To do so, in our mediation models, a dummy variable was created and named direct-indirect RBs (direct = 1 and indirect = 0). Change in negative affect and change in desire for revenge were used to capture their evolution over time. However, since perceived justice restoration is measured only at Time 2, the variable itself is used in the mediation analyses. This mediated path was tested with a multiple mediator model using the procedure PROCESS developed by Hayes (2013b). The following results are based on 10 000 resamples generated by a bootstrap procedure. The indirect path going through justice restoration and  $\Delta$  negative affect is significant ( $B = -.011$ ) with a 95% confidence interval between  $-.045$  and  $-.001$ . This result is consistent with H8a.

We also tested H8b and the second sequence “indirect-direct RBs  $\rightarrow$  justice restoration at Time 2  $\rightarrow$   $\Delta$  positive affect  $\rightarrow$   $\Delta$  desire for revenge.” In this sequence, the path from RBs to justice restoration is significant ( $B = .46$ ,  $p < .05$ ), as is the path from justice restoration to  $\Delta$  positive affect ( $B = .33$ ,  $p < .001$ ). However, the path from  $\Delta$  positive affect to  $\Delta$  desire for revenge does not achieve significance ( $B = -.018$ , *NS*). In sum, this complete indirect path is not significant ( $B = -.003$ ); the 95% confidence interval includes zero ( $-.043$  to  $.026$ ) and H8b is not supported. However, since the paths from directness of RBs to justice restoration and from justice restoration to  $\Delta$  positive affect are significant, the indirect effect of RBs on  $\Delta$  positive affect was significant

( $B = .15$ ), with a 95% confidence interval between .031 and .302.

### **2.3.4 Discussion**

Study 2 reconfirms that direct and indirect RBs have different impacts on customers' responses—in terms of affect and desire for revenge. Consistent with “revenge is sweet” and “revenge is like salt water” logic, customers who engage in direct RB feel less negative and more positive after taking revenge, whereas indirect RB leads to a lesser variation of both negative and positive affects. After enacting indirect RB, there is a lesser decrease in negative affect and a lesser increase in positive affect. The pattern of responses is somewhat different—but still consistent—for the variable “desire for revenge.” After direct RB, the desire for revenge remains the same, although this desire increases after enacting indirect revenge. Accordingly, Study 2 also confirms H4 for two variables out of three. We note, at Time 2, a lesser level of negative affect and a higher level of positive affect for direct RB compared to indirect RB. This difference is directionally correct for the desire for revenge, but not significant. We believe this null effect may be due to the short time gap between the measurement periods. The short lapse (only a few minutes) may not have been sufficient for participants to fully reflect on the satiating effect of direct RB. In sum, despite the differences in patterns, the findings keep confirming that direct revenge is associated with more favorable responses over time (i.e., a “revenge is sweet” effect); but indirect revenge is associated with less favorable responses (“i.e., a “salt water” effect).

Study 2 also provides more evidence of the process at play. The mediation approach showed that the two behaviors led to different perceived justice restoration, which in turn determined negative affect, finally leading to a differential effect in desire for revenge. This sequence is consistent with H8a, and it highlights the role played by the sequence “justice

restoration → negative affect” as the key mechanism explaining why direct and indirect RBs have different effects on a subsequent desire for revenge.

In turn, justice restoration resulting from direct RBs also increases positive affect. However, we did not find a significant link between change in positive affect and change in desire for revenge, so H8b is not supported. These analyses ruled out the possibility that positive affect could play a role in explaining the variation in desire for revenge. The revenge process seems to belong to a “darker” side of human behavior, and positive affect may have little to do with the occurrence of this response. Although it was not measured in Study 2, we believe that positive affect is more likely to explain responses such as reconciliation (Berry et al. 2005; Little, Simmons, and Nelson 2007).

We also ruled out the possibility that the effects of the RB would be explained by the variable “protection of others.” We did not find any significant effect of our directness manipulation on this possible process variable. This result gives us additional confidence in the relevance of “justice restoration” and justice theory to explain the process of interest.

## **2.4 General Discussion**

Essay 2 confirms the findings of Essay 1 using an experimental approach. It demonstrates that different RBs (i.e., direct vs. indirect) have different effects on one’s subsequent desire for revenge.

Study 1 proves that customers who engage in indirect RBs end up feeling more subsequent desire for revenge compared to ones that take direct revenge. Interestingly, it also finds that people who do not enact revenge have weaker desire for revenge compared to those who take indirect

revenge. These results are somewhat different from the conclusion that Carlsmith and colleagues (2008) draw. In their research, they find that people who are given the opportunity to punish end up feeling worse compared to those who could not find a chance to do so. Here, the point being overlooked is the effect of the *type* of RBs on one's subsequent desire for revenge. The effect of enacting revenge – at least in a firm-customer relationship – depends on the way one chooses to punish the offender (i.e., firm). Study 1 reveals that taking direct revenge has as soothing effect as not taking revenge does.

Study 2 replicates previous findings with positive and negative affect as dependent variables. In general, it finds that after taking direct revenge people feel less negative and more positive; whereas indirect revenge results in less variation in these affects. It means that after taking indirect revenge, one's negative affect decreases to a lesser extent and positive affect increases to a lesser extent – compared to what happens after taking direct revenge.

Study 2 also provides evidence for a process involving justice restoration. As per H8a, our mediation analyses showed that the directness of the behaviors led to different perceived justice restoration levels, which in turn determined post-revenge negative affect, finally leading to subsequent desire for revenge. This result highlights the role played by the sequence “justice restoration → negative affect” as a key mechanism explaining the beneficial effect of direct RB.

As per H8b, we did not confirm the indirect sequence going through positive affect. Although justice restoration led to more post-revenge positive affect, this last variable was not found to be related to subsequent desire for revenge. These analyses ruled out the possibility that positive affect could play a role in explaining the variation in desire for revenge. The revenge

process seems to belong to a “darker” side of human behavior, and positive affect may have little to do with the occurrence of this response.

## **2.5 Limitation and Future Work**

Essay 2 examines the effect of the directness of RBs on subsequent desire for revenge using two scenario-based experiments. A limitation of Essay 2 is using the same scenario in both studies and utilizing a specific situation (i.e., truck rental) to test the hypotheses. An extension of the current essay could test the suggested logic in a more relatable situation (i.e., restaurant setting).

It is also interesting to examine whether other variables (e.g., regret, schadenfreude, and revenge intensity) could explain the effect of the RBs on subsequent desire for revenge.

## References

- Aquino, Karl, Thomas M. Tripp, and Robert J. Bies (2001), "How employees respond to personal offense: The effects of blame attribution, victim status, and offender status on revenge and reconciliation in the workplace," *The Journal of Applied Psychology*, 86 (1), 52–59.
- , Thomas M Tripp, and Robert J Bies (2006), "Getting even or moving on? Power, procedural justice, and types of offense as predictors of revenge, forgiveness, reconciliation, and avoidance in organizations," *The Journal of applied psychology*, 91 (3), 653–68.
- Barclay, Laurie J., Daniel P. Skarlicki, and S. Douglas Pugh (2005), "Exploring the role of emotions in injustice perceptions and retaliation," *The Journal of Applied Psychology*, 90 (4), 629–43.
- Bechwati, Nada Nasr and Maureen Morrin (2003), "Outraged consumers: Getting even at the expense of getting a good deal," *Journal of Consumer Psychology*, 13 (4), 440–53.
- Bennett, Roger (1997), "Anger, catharsis, and purchasing behavior following aggressive customer complaints," *Journal of Consumer Marketing*, 14 (2), 156–72.
- Berry, Jack W., Everett L. Worthington, Lynn E. O'Connor, Les Parrott III, and Nathaniel G. Wade (2005), "Forgivingness, vengeful rumination, and affective traits," *Journal of Personality*, 73 (1), 183–225.
- Bonifield, Carolyn and Catherine Cole (2007), "Affective responses to service failure: Anger, regret, and retaliatory versus conciliatory responses," *Marketing Letters*, 18 (1), 85–99.
- Bradfield, Murray and Karl Aquino (1999), "The effects of blame attributions and offender likableness on forgiveness and revenge in the workplace," *Journal of Management*, 25 (5), 607–31.

- Brasel, S. Adam and James Gips (2014), "Tablets, touchscreens, and touchpads: How varying touch interfaces trigger psychological ownership and endowment," *Journal of Consumer Psychology*, Sensory perception, embodiment, and grounded cognition: Implications for consumer behavior, 24 (2), 226–33.
- Bushman, Brad J. (2002), "Does venting anger feed or extinguish the flame? Catharsis, rumination, distraction, anger, and aggressive responding," *Personality and Social Psychology Bulletin*, 28 (6), 724–31.
- Carlsmith, Kevin M., Timothy Wilson, and Daniel Gilbert (2008), "The paradoxical consequences of revenge," *Journal of Personality and Social Psychology*, 95 (6), 1316–24.
- Chagnon, Napoleon A. (1988), "Life Histories, Blood Revenge, and Warfare in a Tribal Population," *Science*, 239 (4843), 985–92.
- Denzler, Markus, Jens Förster, and Nira Liberman (2009), "How goal-fulfillment decreases aggression," *Journal of Experimental Social Psychology*, 45 (1), 90–100.
- Dimitrov, Dimiter M. and Phillip D. Rumrill (2003), "Pretest-posttest designs and measurement of change," *Work*, 20 (2), 159–65.
- Douglas, Scott C. and Mark J. Martinko (2001), "Exploring the role of individual differences in the prediction of workplace aggression," *Journal of Applied Psychology*, 86 (4), 547–59.
- Elster, Jon (1990), "Norms of revenge," *Ethics*, 100 (4), 862–85.
- Funches, Venessa, Melissa Markley, and Lenita Davis (2009), "Reprisal, retribution and requital: Investigating customer retaliation," *Journal of Business Research*, 62 (2), 231–38.
- Gelbrich, Katja (2010), "Anger, frustration, and helplessness after service failure: coping strategies and effective informational support," *Journal of the Academy of Marketing Science*, 38 (5), 567–585.

- Gollwitzer, Mario (2009), "Justice and revenge," in *Social Psychology of Punishment of Crime*, S. Bieneck, M. E. Oswald, and J. Hupfeld-Heinemann, eds., Hoboken, NJ: Wiley.
- and Brad J. Bushman (2012), "Do victims of injustice punish to improve their mood?," *Social Psychological and Personality Science*, 3 (5), 572–80.
- and Markus Denzler (2009), "What makes revenge sweet: Seeing the offender suffer or delivering a message?," *Journal of Experimental Social Psychology*, 45 (4), 840–44.
- , Milena Meder, and Manfred Schmitt (2011), "What gives victims satisfaction when they seek revenge?," *European Journal of Social Psychology*, 41 (3), 364–374.
- Grégoire, Yany and Robert J. Fisher (2006), "The effects of relationship quality on customer retaliation," *Marketing Letters*, 17 (1), 31–46.
- and ——— (2008), "Customer betrayal and retaliation: When your best customers become your worst enemies," *Journal of the Academy of Marketing Science*, 36 (2), 247–261.
- , Daniel Laufer, and Thomas M. Tripp (2010), "A comprehensive model of customer direct and indirect revenge: Understanding the effects of perceived greed and customer power," *Journal of the Academy of Marketing Science*, 38 (6), 738–758.
- , Thomas M. Tripp, and Renaud Legoux (2009), "When customer love turns into lasting hate: The effects of relationship strength and time on customer revenge and avoidance," *Journal of Marketing*, 73 (6), 18–32.
- Hammock, Georgina, Sidney Rosen, Deborah Richardson, and Sandy Bernstein (1989a), "Aggression as equity restoration," *Journal of Research in Personality*, 23 (4), 398–409.
- , ———, ———, and ——— (1989b), "Aggression as equity restoration," *Journal of Research in Personality*, 23 (4), 398–409.

- Harlos, Karen P. and Craig C. Pinder (2000), "Emotion and injustice in the workplace," in *Emotion in organizations*, S. Fineman, ed., London: SAGE Publications Ltd, 255–77.
- Hayes, Andrew F. (2013a), *Introduction to mediation, moderation, and conditional process analysis a regression-based approach*, New York: The Guilford Press.
- (2013b), *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*, Guilford Press.
- Hibbard, Jonathan D., Nirmalya Kumar, and Louis W. Stern (2001), "Examining the impact of destructive acts in marketing channel relationships," *Journal of Marketing Research*, 38 (1), 45–61.
- Joireman, J., Y. Grégoire, B. Devezer, and T.M. Tripp (2013), "When do customers offer firms a 'second chance' following a double deviation? The impact of inferred firm motives on customer revenge and reconciliation."
- Keeffe, Dominique A., Rebekah Russell-Bennett, and Alastair Tombs (2008), "Customer retaliation at the employee-customer interface," *Journal of Management and Organization*, 14 (4), 438–50.
- Kluwer, Esther S. and Johan C. Karremans (2009), "Unforgiving motivations following infidelity: Should we make peace with our past?," *Journal of Social and Clinical Psychology*, 28 (10), 1298–1325.
- Kowalski, R M (1996), "Complaints and complaining: functions, antecedents, and consequences," *Psychological bulletin*, 119 (2), 179–96.
- Little, Laura M., Bret L. Simmons, and Debra L. Nelson (2007), "Health among leaders: Positive and negative affect, engagement and burnout, forgiveness and revenge," *Journal of Management Studies*, 44 (2), 243–60.

- Maxham, James G. and Richard G. Netemeyer (2002), "A longitudinal study of complaining customers' evaluations of multiple service failures and recovery efforts," *Journal of Marketing*, 66 (4), 57–71.
- McCull-Kennedy, Janet R., Paul G. Patterson, Amy K. Smith, and Michael K. Brady (2009), "Customer rage episodes: Emotions, expressions and behaviors," *Journal of Retailing*, 85 (2), 222–237.
- McCullough, Michael E., C. Garth Bellah, Shelley Dean Kilpatrick, and Judith L Johnson (2001), "Vengefulness: relationships with forgiveness, rumination, well-being, and the big five," *Personality and Social Psychology Bulletin*, 27 (5), 601–10.
- , Giacomo Bono, and Lindsey M. Root (2007), "Rumination, emotion, and forgiveness: Three longitudinal studies," *Journal of Personality and Social Psychology*, 92 (3), 490–505.
- McCullough, Michael E, Robert Kurzban, and Benjamin A Tabak (2013), "Cognitive systems for revenge and forgiveness," *The Behavioral and brain sciences*, 36 (1), 1–15.
- McCullough, Michael E., K. Chris Rachal, Steven J. Sandage, Everett L. Worthington Jr, Susan W. Brown, and Terry L. Hight (1998), "Interpersonal forgiving in close relationships: II. Theoretical elaboration and measurement," *Journal of Personality and Social Psychology*, 75 (6), 1586–1603.
- McFerran, Brent, Karl Aquino, and Jessica L. Tracy (2014), "Evidence for two facets of pride in consumption: Findings from luxury brands," *Journal of Consumer Psychology*.
- Orth, Uli (2003), "Punishment Goals of Crime Victims," *Law and Human Behavior*, 27 (2), 173–86.

- Pennebaker, James. W (1993), "Putting stress into words: health, linguistic, and therapeutic implications," *Behaviour research and therapy*, 31 (6), 539–48.
- Pennebaker, James W. (1997), *Opening up: the healing power of expressing emotions*, Guilford Press.
- Preacher, Kristopher J and Andrew F Hayes (2004), "SPSS and SAS procedures for estimating indirect effects in simple mediation models," *Behavior research methods, instruments, & computers: a journal of the Psychonomic Society, Inc*, 36 (4), 717–31.
- and ——— (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models," *Behavior research methods*, 40 (3), 879–91.
- de Quervain, Dominique J-F, Urs Fischbacher, Valerie Treyer, Melanie Schellhammer, Ulrich Schnyder, Alfred Buck, and Ernst Fehr (2004), "The neural basis of altruistic punishment," *Science*, 305 (5688), 1254–58.
- Skarlicki, Daniel P. and Robert Folger (1997), "Retaliation in the workplace: The roles of distributive, procedural, and interactional justice," *Journal of Applied Psychology*, 82 (3), 434–43.
- Skinner, Ellen A., Kathleen Edge, Jeffrey Altman, and Hayley Sherwood (2003), "Searching for the structure of coping: A review and critique of category systems for classifying ways of coping," *Psychological Bulletin*, 129 (2), 216–69.
- Smith, Amy K. and Ruth N. Bolton (1998), "An experimental investigation of customer reactions to service failure and recovery encounters: paradox or peril," *Journal of Service Research*, 1 (1), 5–17.

- , ———, and Janet Wagner (1999), “A model of customer satisfaction with service encounters involving failure and recovery,” *Journal of marketing research*, 36 (3), 356–372.
- Stillwell, Arlene M., Roy F. Baumeister, and Regan E. Del Priore (2008a), “We’re All Victims Here: Toward a Psychology of Revenge,” *Basic and Applied Social Psychology*, 30 (3), 253–63.
- , ———, and ——— (2008b), “We’re all victims here: Toward a psychology of revenge,” *Basic and Applied Social Psychology*, 30 (3), 253–63.
- Strizhakova, Yuliya, Yelena Tsarenko, and Julie A. Ruth (2012), “‘I’m mad and I can’t get that service failure off my mind’: coping and rumination as mediators of anger effects on customer intentions,” *Journal of Service Research*, 15 (4), 414–29.
- Tax, Stephen S., Stephen W. Brown, and Murali Chandrashekar (1998), “Customer evaluations of service complaint experiences: Implications for relationship marketing,” *The Journal of Marketing*, 62 (2), 60–76.
- Walster, Elanie, Ellen Berscheid, and G. William Walster (1973), “New directions in equity research,” *Journal of personality and social psychology*, 25 (2), 151–76.
- Ward, James C. and Amy L. Ostrom (2006), “Complaining to the masses: The role of protest framing in customer-created complaint web sites,” *Journal of Consumer Research*, 33 (2), 220–30.
- Watson, David, Lee A. Clark, and Auke Tellegen (1988), “Development and validation of brief measures of positive and negative affect: The PANAS scales,” *Journal of Personality and Social Psychology*, 54 (6), 1063–70.

- Wetzer, Inge M., Marcel Zeelenberg, and Rik Pieters (2007), ““Never eat in that restaurant, I did!’: Exploring why people engage in negative word-of-mouth communication,” *Psychology and Marketing*, 24 (8), 661–680.
- Xu, David J., Ronald T. Cenfetelli, and Karl Aquino (2012), “The influence of media cue multiplicity on deceivers and those who are deceived,” *Journal of Business Ethics*, 106 (3), 337–52.
- Yoshimura, Stephen (2007), “Goals and emotional outcomes of revenge activities in interpersonal relationships,” *Journal of Social and Personal Relationships*, 24 (1), 87–98.
- Zhao, Xinshu, John G. Lynch Jr., and Qimei Chen (2010), “Reconsidering baron and kenny: myths and truths about mediation analysis,” *Journal of Consumer Research*, 37 (2), 197–206.
- Zourrig, Haithem, Jean-Charles Chebat, and Roy Toffoli (2009), “Consumer revenge behavior: A cross-cultural perspective,” *Journal of Business Research*, 62 (10), 995–1001.



## **Chapter 3**

# **The Physiological Measured of Direct versus Indirect Revenge: A Justice Perspective**

## **Abstract**

Essay 3 examines the concept of revenge in a real setting. Using face reader technology along with conventional method (i.e., surveys), it studies the effect of directness of RBs and presence of justice restoration on people's subsequent desire for revenge. The results show that direct revenge leads to less negative feelings and a decrease in subsequent desire for revenge only when justice is restored. On the contrary, the absence of justice restoration in the direct revenge condition leads to the worst emotional state. Interestingly, restoration of justice has no soothing effect when people engage in indirect revenge acts.

**Keywords:** Revenge, Directness, Justice restoration, Face reader

### 3.1 Introduction and Theoretical Development

The purpose of Essay 3 is three-fold: 1) to test our logic with a stronger experimental design involving physiological responses; 2) to test the effectiveness of providing a recovery; and 3) to further understand the mechanism involving justice restoration.

The field keeps advocating for the creation of “real” service failures (see Heidenreich et al. 2015 and Roehm and Brady 2007 for recent examples), so theories can be validated with more confidence. Answering this call, Essay 3 creates a real service failure in which we manipulated the directness of RB and justice restoration. Essay 3 also capitalizes on recent methodological advances by measuring affect with a facial emotion recognition software.

Essay 3 orthogonally manipulates the directness of customer revenge and justice restoration (offered by management). This manipulation helps highlighting the close association between direct revenge and justice restoration—from which managers can derive important insights to minimize (or amplify) the threat of customer revenge.

We propose that the enactment of a direct RB should decrease subsequent negative affect and desire for revenge *only* when this action is coupled with justice restoration—that is, a recovery offered by the firm. In this case, customers clearly achieve their objective. Their direct action restores the justice with the firm, and this newly built equilibrium explains their decrease in negative affect and subsequent desire for revenge. However, Essay 3’s design also allows “blocking” the mediation role of justice restoration after the enactment of direct revenge in the experimental condition where no recovery plan is offered. When customers realize that their direct revenge did not restore justice with the provider, their actions—even if they are direct—should not

lead to the usual favorable outcomes. In fact, this situation could be viewed as especially frustrating and it could lead to an increase in negative affect and desire for revenge.

This design also clarifies the role of justice restoration when revenge is *indirect*. When customers *indirectly* enact revenge, we argue, the absence or presence of justice restoration has little incidence on customers' responses. When justice is not restored, there is obviously no reason for customers to experience a decrease in negative affect and subsequent desire for revenge. Even when they receive a recovery (so justice is restored), this situation is not especially satisfying for customers because they cannot attribute this favorable outcome to their own doing (Gollwitzer and Denzler 2009). Because they have little responsibility for the occurrence of this outcome, they may keep thinking about the negative event and their ineffective actions. In this case, their negative affect and subsequent desire for revenge should remain similar to those of the individuals in the "indirect revenge-no justice restoration" condition.

**H9:** The directness of the revenge behaviors interacts with the justice restoration manipulation in such a way that:

- a) When customers enact direct RB, they experience lesser negative affect and subsequent desire for revenge if justice is restored (compared to the no restoration condition);
- b) When customers engage in indirect RB, they experience similar negative affect and subsequent desire for revenge, regardless of the restoration conditions (i.e., presence or absence).

## **3.2 Method**

### **3.2.1 Participants and Design**

Study 4 is a two (direct versus indirect RBs) by two (justice restoration: yes or no) between-subject full-factorial design, with three measurement periods corresponding to the three stages of the experiment. A total of 49 undergraduate students participated in this study in exchange for compensation (\$20); the size of this sample is similar to research manipulating real service failure (Roehm and Brady 2007). Participants were invited to the lab to evaluate a recently introduced version of the course management website of the Business School. The experiment was divided into three distinct stages.

At Time 1, participants had seven minutes to write their suggestions to improve the site; they were informed that their compensation would be based on the quality of their report. They were told that most participants were compensated \$20; however, on rare occasions participants received lower (\$5) or higher (\$40) compensation, based on the quality of their report. After submitting their comments, they receive an evaluation of their writing by an expert after a few minutes. To create a service failure, all participants were told that none of their suggestions would be retained. Given the low value of their input, they would receive only \$5 for their efforts (rather than the promised \$20). We also started preparing for the revenge directness manipulation that would occur at Time 2 by manipulating the identity of the expert. In one condition (direct RB), the participants were told that the Business School website expert—identified by name—graded their report and decided on their compensation. In the other condition (indirect RB), the grading and decision were made by an anonymous expert from outside the Business School.

At Time 2, we provided an opportunity to the participants to reply to the expert about their evaluations. Participants had an opportunity to critique the expert's evaluation and get revenge against him. In the direct condition, we mentioned that participants' feedback would be sent to, read by and considered by the same expert, who worked at the school. In the indirect condition, they were told that their feedback would remain anonymous, and that there was no guarantee their feedback would be forwarded to the very same expert who made the first evaluation.

At Time 3, we manipulated justice restoration by offering (or not) a complete recovery. In the first condition, the report was re-evaluated in a positive manner and the participants received the promised amount (\$20). In the second condition, the initial decision was maintained, and the students received \$5. At the end of the experiment, all the participants were individually debriefed and received 20\$.

### **3.2.2 Measurement**

We measured participants' desire for revenge (with the three usual items) at each time. We also added manipulation checks for directness of revenge (three items, such as "I know the name of the person who sent me the feedback on my review") at Time 1; and measures for justice restoration (with the same four items as in Essay 2) at Time 3.

Participants' facial expressions also provided our physiological measures of emotional valence at each time. Like Teixeira, Wedel, and Pieters (2012), we used computer-aided emotion detection to assess participants' facial emotions. This method has been shown to be as accurate as highly-trained expert coders (Lewinski, den Uyl, and Butler 2014). Participants' expression is assessed 20 times per second and given an intensity level ranging from 0 (not present) to 1 (fully

present). To calculate a participant's emotional valence, the software uses the highest negative expression intensity and deducts it from the positive expression intensity. In this study, we used an average emotional valence score calculated for each time period (Times 1, 2, and 3), and the valence score could vary from 1 (very positive) to -1 (very negative).

### **3.3 Results**

#### **3.3.1 Content Analysis of the Rebuttal**

We analyzed the content of participants' rebuttal at Time 2. This step is important because this is where the RB would take place. We tested if the rebuttal involves four key characteristics of a conflictual interaction (Pinkley and Northcraft 1994)—disagreement, negativity, justification, and incivility. Two coders read all the rebuttals and independently coded them based on each dimension. Overall, the level of inter-reliability between the coders was high—varying between 79% and 98% depending on the dimension—and disagreement was reconciled through discussions. On average, the rebuttal counted 72.91 words. Overall, 62% of the participants clearly stated their disagreement with the evaluation of their feedback (79% inter-reliability); 51% formulated negative comment about the expert and its evaluation style (85% inter-reliability); and 72% provided clear justification explaining the relevance of their initial work (89% inter-reliability). Although the participants showed their opposition and disagreement toward the expert and his evaluation, only one individual was uncivil and impolite in doing so. Overall, this analysis suggests that the participants generally felt the presence of a conflict with the expert.

### 3.3.2 Manipulation Checks

We checked that both the manipulations of revenge directness and justice restoration affected participants' perceptions as expected. First, the average of the three directness items measured after the first feedback (Time 1) formed a composite measure of perceived directness ( $\alpha = .70$ ). As intended, participants in the direct revenge condition were better able to attribute the feedback to a given individual than were participants in the indirect condition ( $M_{\text{Direct}} = 4.85$ ,  $SD = 1.80$ ;  $M_{\text{Indirect}} = 3.19$ ,  $SD = 1.35$ ;  $t(47) = 3.64$ ,  $p < .01$ ). Second, we took the mean of the four justice restoration items at Time 3 ( $\alpha = .60$ ) and conducted an ANOVA with directness and justice restoration as fixed factors, as well as their interaction. There was no main effect of the direct-indirect manipulation or interaction (both  $F_s < 1$ ), and only the main effect of justice restoration ( $M_{\text{Justice restoration}} = 3.92$ ,  $SD = 1.31$ ;  $M_{\text{No justice restoration}} = 2.60$ ,  $SD = .66$ ) was significant ( $F(1,45) = 20.48$ ,  $p < .001$ ). Overall, our manipulations were effective.

### 3.3.3 Desire for Revenge

The mean of the three items served as a measure of desire for revenge ( $\alpha_{\text{time1}} = .80$ ,  $\alpha_{\text{time2}} = .87$ ,  $\alpha_{\text{time3}} = .86$ ). At Time 1, just after receiving the evaluation of their review, participants desire for revenge did not differ about whether the evaluation came from the Business School website expert or the anonymous external expert ( $M_{\text{Direct}} = 2.15$ ,  $SD = 1.28$ ;  $M_{\text{Indirect}} = 2.31$ ,  $SD = 1.26$ ;  $t(47) = .44$ , NS), which indicates that the directness manipulation did not affect the intensity of the participants' reaction to the negative evaluation, and the pre-revenge desire for revenge was similar in both conditions. There was no significant difference at Time 2 either, just after the participants took revenge by sending an email to reply to the expert's evaluation ( $M_{\text{Direct}} = 2.03$ ,  $SD = 1.18$ ;  $M_{\text{Indirect}} = 2.03$ ,  $SD = 1.18$ ;  $t(47) = .00$ , NS).

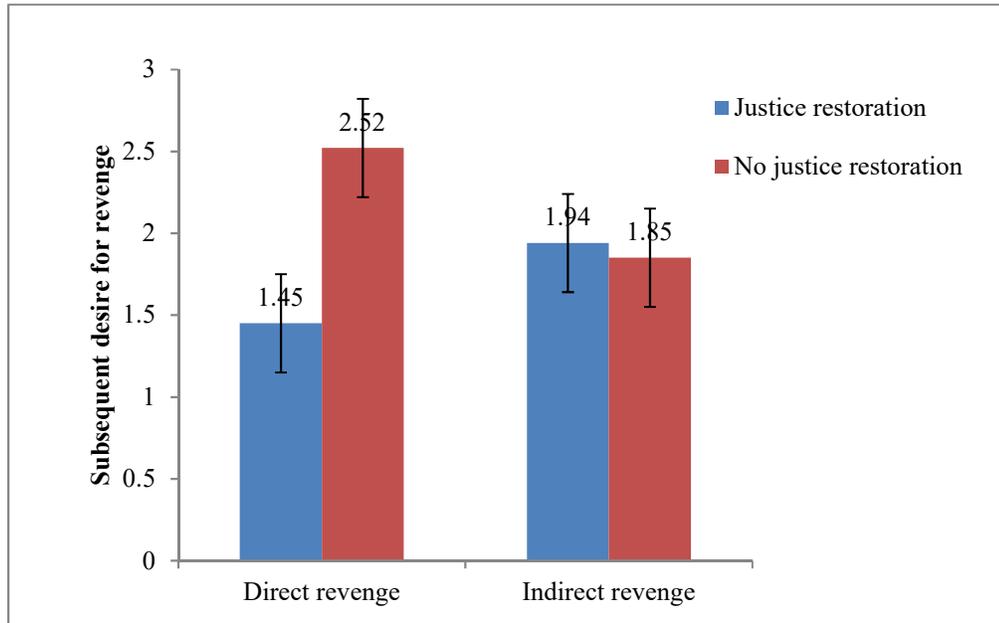
$M_{\text{Indirect}} = 2.01$ ,  $SD = 1.04$ ;  $t(47) = .04$ , NS). According to our previous results about the stronger quenching effect of direct revenge, we might have expected that the desire for revenge after directly complaining about the expert should be lower than after indirectly complaining to an unidentified recipient. However, the participants were instructed to write this email in order to obtain a reevaluation of their compensation. In this context, we believe the participants held in abeyance their desire for revenge until they got the final answer at Time 3.

The lingering desire for revenge was measured at the end of the study, after participants received the answer about the change in their compensation (Time 3). The ANOVA with directness and justice restoration as fixed factors and their interaction revealed a marginally significant interaction ( $F(1,45) = 3.48$ ,  $p = .069$ ) and no main effects (both  $F$ s  $< 3$ ). The marginal means for each condition are represented in Figure 7. Consistent with H9a, the contrasts show that justice restoration decreased subsequent desire for revenge in the direct revenge condition ( $M_{\text{Direct-justice restoration}} = 1.45$ ,  $SD = .93$ ;  $M_{\text{Direct-no justice restoration}} = 2.52$ ,  $SD = 1.25$ ;  $F(1,45) = 5.98$ ,  $p < .05$ ). When the RB was addressed to anonymous expert, the manipulation of justice restoration had no effect on desire for revenge ( $M_{\text{Indirect-justice restoration}} = 1.93$ ,  $SD = .80$ ;  $M_{\text{Indirect-no justice restoration}} = 1.85$ ,  $SD = 1.21$ ;  $F(1,45) = .044$ , NS), which is consistent with H9b.

### 3.3.4 Emotional Valence

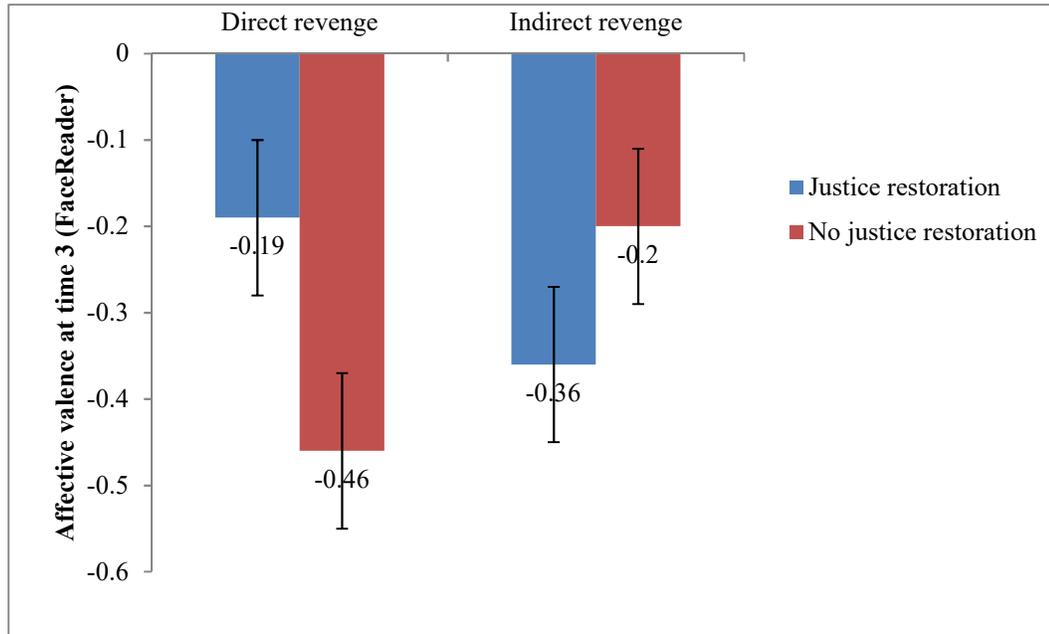
The Facereader software could generate an emotional valence score for 42 of the 49 participants. Consistent with the pattern for desire for revenge, the average emotional valence based on the Facereader's capture of facial expressions did not differ between the direct and indirect conditions at Time 1 ( $M_{\text{Direct}} = -.38$ ,  $SD = .30$ ;  $M_{\text{Indirect}} = -.30$ ,  $SD = .30$ ;  $t(41) = .93$ , NS) and Time 2 ( $M_{\text{Direct}} = -.34$ ,  $SD = .20$ ;  $M_{\text{Indirect}} = -.27$ ,  $SD = .23$ ;  $t(40) = 1.01$ , NS).

**Figure 7: Subsequent desire for revenge in function of revenge directness and justice restoration**



The emotional valence mean at Time 3 was subjected to the ANOVA analysis with revenge directness, justice restoration and their interaction, yielding no main effects (both  $F$ s < 1) but a significant interaction ( $F(1,38) = 5.48, p < .05$ ). The negative scores in all four experimental conditions indicated that valence was negative—a result that is consistent with a service failure context. Consistent with H9a, in the direct RB condition, justice restoration was able to assuage the negative affect ( $M_{\text{Direct-justice restoration}} = -.19, SD = .12$ ;  $M_{\text{Direct-no justice restoration}} = -.46, SD = .37$ ;  $F(1,38) = 4.36, p < .05$ ). In contrast, justice restoration did not affect the subsequent emotional valence in the indirect RB condition ( $M_{\text{Indirect-justice restoration}} = -.36, SD = .33$ ;  $M_{\text{Indirect-no justice restoration}} = -.20, SD = .32$ ;  $F(1,38) = 1.49, NS$ ), which is supportive of H9b. As can be seen in Figure 8, participants in the “direct revenge without justice restoration” condition seem to be feeling the worst.

**Figure 8: Emotional valence at time 3 in function of revenge directness and justice restoration**



### 3.3.5 Moderated Mediation

Noting the effect of the interaction of revenge directness with justice restoration on emotional valence, we tested the conditional indirect effect of justice restoration through affective reaction on subsequent desire for revenge, contingent on revenge directness (Hayes 2013b). In the direct revenge condition, the conditional indirect effect was significant (effect =  $-.30$ , bias-corrected bootstrap 95% confidence interval [CI]  $[-0.9913, -0.0018]$ , 10 000 bootstrap samples). When participants took revenge directly, the effect of justice restoration on subsequent desire for revenge is mediated by emotional valence, indicating support for the affect-repairing effect of justice restoration (H9a). In contrast, in the indirect revenge condition, the conditional indirect effect was not significant (effect =  $.17$ , CI  $[-0.0623, 0.6664]$ ), indicating no mediation in this case. The conditional direct effect of justice restoration on subsequent desire for revenge was not significant when revenge was indirect (effect =  $.21$ ,  $t = .52$ , NS). The index of moderated mediation

was also significant (Index = -.471, CI [-1.3950, -0.0198], confirming that the underlying processes differ depending on the revenge directness. These results suggest that justice restoration plays a key role in reducing subsequent desire for revenge through the improvement of the negative affective reaction *only* when revenge is enacted directly. Justice restoration is not at play when revenge is enacted indirectly.

### **3.4 General Discussion**

These results confirm and extend the findings of the previous studies in a real service failure episode, where negative affect was measured using a physiological approach. First, the results provide more evidence for justice restoration as the critical mechanism explaining the quenching effect of direct revenge that was revealed with a mediation approach in Study 2 of Essay 2. By manipulating justice restoration in this study, we show that direct revenge leads to less negative feelings and a decrease in subsequent desire for revenge only when justice is restored through a corrected compensation for the participant. The absence of justice restoration in the direct revenge condition leads to the worst emotional state. It is important to note that when revenge was direct, this study also replicates the mediating role of negative affect between justice restoration and subsequent desire for revenge by using an unobtrusive implicit measure of emotional valence, as opposed to the self-declared explicit measure in Study 2 of Essay 2.

Second, a noteworthy finding is that justice restoration does not affect participants who enacted revenge indirectly in the same way. For that group, the recovered compensation had no soothing effect on their negative affect and subsequent desire for revenge. Together these findings suggest that people enacting revenge directly—by addressing the person in charge, for instance—expect justice to be restored through their actions. When direct revenge is enacted, justice

restoration appears a necessary condition for customers to feel better and turn the page. For people who enacted revenge indirectly, though, the impossibility of clearly attributing justice restoration to their revenge action does not make it a critical driver of their post-revenge reaction.

### **3.5 Limitation and Future Work**

Essay 3 examines the effect of RBs on subsequent desire for revenge in a real setting using physiological measures along with conventional survey. An interesting extension of the current research is employing brain-related technologies (e.g., EEG or fMRI) to study the said effect. These technologies enable us to see whether direct versus indirect revenge are triggered by different area of brain.

One limitation of Essay 3 is that it is not designed in a real economic exchange relationship. Although implementing a revenge related experiment in an economic setting is challenging, it could give us valuable insight.

## References

- Gollwitzer, Mario and Markus Denzler (2009), “What makes revenge sweet: Seeing the offender suffer or delivering a message?,” *Journal of Experimental Social Psychology*, 45 (4), 840–44.
- Hayes, Andrew F. (2013), *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*, Guilford Press.
- Heidenreich, Sven, Kristina Wittkowski, Matthias Handrich, and Tomas Falk (2015), “The dark side of customer co-creation: exploring the consequences of failed co-created services,” *Journal of the Academy of Marketing Science*, 43 (3), 279–96.
- Lewinski, Peter, Tim M. den Uyl, and Crystal Butler (2014), “Automated facial coding: Validation of basic emotions and FACS AUs in FaceReader.,” *Journal of Neuroscience, Psychology, and Economics*, 7 (4), 227–236.
- Pinkley, R. L. and G. B. Northcraft (1994), “Conflict frames of reference: implications of dispute processes and outcomes,” *Academy of Management Journal*, 37 (1), 193–205.
- Roehm, Michelle L. and Michael K. Brady (2007), “Consumer responses to performance failures by high-equity brands,” *Journal of Consumer Research*, 34 (4), 537–45.
- Teixeira, Thales, Michel Wedel, and Rik Pieters (2012), “Emotion-induced engagement in internet video advertisements,” *Journal of Marketing Research*, 49 (2), 144–59.

## Conclusion

This multi-method research provides the first evidence about customers' reaction after they enacted revenge. It reconciles two seemingly opposite schools of thought about the effects of revenge: namely, the “revenge is sweet” effect and the “revenge is like salt water on thirst” effect. The evidence—from three essays relying on both real and hypothetical RBs—demonstrates that subsequent emotional states and desire for revenge are dependent on the way revenge is enacted (specifically the *directness* of the RBs) and the way these behaviors are associated with justice restoration. Understanding the variation of a subsequent desire for revenge is important because this variable is a strong predictor of further costly retaliatory actions to come for firms.

Confirming the “revenge is sweet” effect (H1), direct RBs—defined as overt behaviors confronting the firm and its representatives in their environment (Buss 1961; Grégoire, Laufer, and Tripp 2010)—are generally followed by a sharp decline in negative affect and desire for revenge over time (Essays 1 and 2), as well as by a clear increase in positive affect (Essay 2). In contrast, indirect RBs—defined as covert behaviors hurting the firm behind its back—sustain to a greater extent subsequent negative affect (Essay 2) and desire for revenge over time (Essays 1 and 2). In addition, indirect RBs lead to minimal increase in positive affect over time in Study 2 of Essay 2. The whole evidence observed for indirect RBs is consistent with the “salt water on thirst” effect (H2).

In line with these temporal patterns, our findings confirm that customers have less lingering revenge desire after direct RBs, such as marketplace aggression or vindictive complaining against the firm, in comparison with indirect RBs, such as negative word-of-mouth or third-party

complaining (H4). Finally, both explicit perceptions (in Essay 2) and implicit measures (in Essay 3) of affect generally reflect the superior ability of direct RBs, as opposed to indirect RBs, to quench one's negative feelings. To the best of our knowledge, this dissertation is the first to demonstrate the key role of RB's *directness* in explaining individuals' favorable or unfavorable responses. Interestingly, we also find that resisting the temptation of taking revenge is also an effective approach to keep one's subsequent desire for revenge at bay (H5).

This research also documents the mechanism that underlies the effect of RBs on subsequent desire for revenge. Mediation analysis in Essay 1 reveals the role of rumination in explaining the effect of RBs on subsequent desire for revenge (H3). Direct revenge decreases subsequent desire for revenge due to lesser rumination about the negative experience. In contrast, indirect revenge increases subsequent desire for revenge because it causes more rumination about the incident. Confirming past research (Bennett 1997; Kowalski 1996), we find that venting negative emotion in form of direct revenge results in a better feeling (Bennett 1997); because it brings closure to customers' wound and as a result they do not keep thinking about the incident. In direct revenge, however, keeps customers away from confronting firms' frontline employees and they do not find a chance to vent their dissatisfaction directly to the firm. The inhibition of negative emotions results in intensified rumination (Pennebaker 1993; Pennebaker 1997).

We also examined the role of justice restoration in explaining the effect of RBs on subsequent desire for revenge. Both mediation (Essay 2) and moderation (Essay 3) analyses revealed its decisive role (Grégoire and Fisher 2008) in explaining the differential effects of direct versus indirect RBs. After enacting revenge, customers' perception of the extent to which justice is restored determines their subsequent rumination and negative affect, which in turn influences their desire for revenge (see H6 and H8a in Essay 2). According to our results, customers view

direct RBs that confront the firm in an overt manner as a more effective way to restore justice, in contrast to indirect RBs.

Consistent with the mediation effect presented in Essay 2, justice restoration plays the role of a boundary condition (see H9 in Essay 3) for the soothing effect of direct revenge. When justice is clearly restored thanks to a full recovery, direct RBs result in a decrease of both subsequent negative affect and desire for revenge. However, this decrease is not observed when direct RB is associated with a lack of justice restoration. The responses in the condition “direct RB and no justice restoration” are even worse than after indirect RB. Overall, these findings support the idea that people expect direct RBs to restore justice by default; they then react negatively when this expectation is not confirmed (H9a). In contrast, the responses to indirect RB did not differ whether or not justice was restored (H9b). This is consistent with the stealthier nature of this type of revenge. Indirect RBs do not target the firm *per se*. Even if the firm becomes aware of these actions, it may have difficulties in tracing them back to the initial service failure. These characteristics may explain why not only customers perceive indirect revenge as less effective to restore justice, but also why their responses do not depend on justice restoration. Importantly, customers do not feel “better” after they enact indirect RB, even when justice is restored. Because they cannot attribute this favorable outcome to their indirect behavior, they keep feeling negative.

Besides justice restoration and rumination, the protection of other customers was identified as another potential mediator that could have explained why direct RB quenches one’s desire for revenge (Ward and Ostrom 2006). So, we tested “protection of others” as an alternative mechanism to explain the differential impact of direct and indirect RBs on customer responses (Essay 2). Participants evaluated both types of revenge as equally able to protect others. In sum, our findings rule out the possibility that “protection of others” is a mediator in the current process.

The present research further refines the understanding of the psychological consequences of revenge by clarifying the role of affect. The restoration of justice both alleviates negative emotions and increases positive emotions (see Essay 2). However, our results reveal that only lingering negative affect, and not positive affect, breeds subsequent desire for revenge. This result is consistent with the literature on revenge that has mainly focused on negative emotions such as anger (Grégoire, Laufer, and Tripp 2010). Positive and negative affects are distinct routes that arguably lead to different responses: reconciliation and forgiveness for positive affect (Aquino, Tripp, and Bies 2006) versus revenge and rage for negative affect (Grégoire, Laufer, and Tripp 2010).

### **Managerial implications**

Our findings inform practices in dealing with vengeful customers in many ways. First, our results indicate that customer RBs will not necessarily fulfill their prior desire for revenge, especially when they engage in the *indirect* form. As acknowledged in the literature, online indirect revenge—for example, the famous case of “United Breaks Guitar”—is difficult to predict and control, especially when these actions become viral (Grégoire, Laufer, and Tripp 2010). Second, our research extends this knowledge by showing that indirect RBs also sustain customers’ subsequent desire for revenge. We consistently find that indirect RBs does not bring a sense of closure because customers do not see a connection between their actions and the inconveniences caused to the firm, regardless of the costs of these inconveniences. To regain a sense of justice, customers need to see that their actions have triggered inconvenience for firms and a change in their approaches (Gollwitzer and Denzler 2009). If they cannot make this connection, customers keep ruminating about the event, which fuels their future revenge (Carlsmith, Wilson, and Gilbert

2008).

To make things worse, we also find that indirect revenge is immune to the tested recoveries efforts. Indeed, we find in Essay 3 similar negative responses for participants in the indirect revenge conditions, regardless whether they receive or not a recovery. Again, as long as customers cannot clearly attribute the recovery to their actions, managers cannot expect to obtain a reduction in customers' intention to get revenge. For all these reasons, we believe that managers should pay special attention to indirect acts of revenge; the vengeful customers engaging in these behaviors are not going away and they will not stop on their own.

So what could be done to counter the occurrence of indirect RBs? Our recommendation starts by a careful monitoring of these actions by using a variety of social media tools (e.g., Google Alert, Sysomos) (Grégoire, Salle, and Tripp 2015). Then, the basic idea is to transform indirect initiatives into direct actions, so firms can benefit from the context in which justice restoration can play a reparative role. Firms need to provide channels for indirect retaliators to *directly* vent their negative emotions and to *personally* communicate their strong disagreement to their employees. Although such “transfer” would create stress on the employees responsible for this mission—by the way, these individuals should be carefully selected—this process could create very important advantages for the firms as we see next.

As our results suggest, direct RBs tend to be more beneficial for firms. These actions are easier to circumscribe in a private manner; they do not present the risk of becoming viral. Second, they are also associated with a diminution in negative affect and desire for revenge, and an increase in positive affect. A firm may then have a better chance to “nip in the bud” the vicious circle of revenge if it takes the lead and encourages the customers to express their anger in a civil but *direct*

manner (Bennett 1997; Nyer 2000). Our findings suggest that by expressing their revenge *directly* to the firm in an overt manner, customers end up in a better emotional state in comparison to indirect RBs.

Importantly, the firm must ensure that direct RBs are followed by justice restoration (e.g., an appropriate compensation or recovery plan), which is essential for the “revenge is sweet” effect to occur. Indeed, when customers engage in direct actions, they need to see that firms understood their actions, felt the inconvenience and redressed justice by providing an appropriate recovery. In sum, a reduction in future revenge is much more likely when customers have directly engaged with the firm and then receive an appropriate recovery—it is the key managerial takeaway of our research.

A word of caution should be raised: direct revenge only leads to favorable outcomes when it is associated with a recovery plan leading to justice restoration. When direct RBs are not associated with a restoration, this situation could dangerously backfire and create higher customers’ negative affect and desire for revenge. A focus on direct revenge is only effective when it becomes the starting point to restore justice.

### **Further avenues for research**

The present dissertation may be extended in several ways. First, the current research focuses on contrasting the effects of direct versus indirect RBs. This approach could be extended by looking at customers’ responses when they do not enact revenge at all. Essay 2 included such a control condition (no revenge), and our findings indicated that doing nothing and “letting go” resulted in a relatively low desire for revenge, comparable to direct RB. However, indirect RBs

sustained more subsequent desire for revenge, compared to the “no revenge” condition. These results allow revisiting former conclusions about the deleterious effect of revenge. In Carlsmith et al. (2008), people who were given the opportunity to punish ended up feeling worse compared to those who did not have the opportunity. We believe these latter results could be explained by the indirect nature of the RB studied by Carlsmith et al. (2008). In sum, more research is needed to better understand the intrapersonal upsides and downsides of getting revenge (directly and indirectly) as opposed to simply “letting go” after a transgression.

A related issue regards the interplay between the intrapersonal and interpersonal consequences of revenge. The current research focuses on the intrapersonal responses. However, revenge can also be intended to deter future aggressions and regulate power (Chagnon 1988b). Future research could examine how different types of RBs can map different functions. That broader approach could explain why customers still enact indirect RB despite its poor emotional consequences. For example, some customers motivated to rebalance the power with firms may endure the psychological toll of indirect RB so that they can achieve their goal. This also raises the question of the role played by people’s lay theories about the functions of RBs. How precise are customers at predicting that their “revenge will be sweet” or “more like salt water”?

## References

- Aquino, Karl, Thomas M Tripp, and Robert J Bies (2006), "Getting even or moving on? Power, procedural justice, and types of offense as predictors of revenge, forgiveness, reconciliation, and avoidance in organizations," *The Journal of applied psychology*, 91 (3), 653–68.
- Bennett, Roger (1997), "Anger, catharsis, and purchasing behavior following aggressive customer complaints," *Journal of Consumer Marketing*, 14 (2), 156–72.
- Buss, Arnold H. (1961), *The psychology of aggression*, New York: Wiley.
- Carlsmith, Kevin M., Timothy Wilson, and Daniel Gilbert (2008), "The paradoxical consequences of revenge," *Journal of Personality and Social Psychology*, 95 (6), 1316–24.
- Chagnon, Napoleon A. (1988), "Life histories, blood revenge, and warfare in a tribal population," *Science*, 239 (4843), 985–92.
- Gollwitzer, Mario and Markus Denzler (2009), "What makes revenge sweet: Seeing the offender suffer or delivering a message?," *Journal of Experimental Social Psychology*, 45 (4), 840–44.
- Grégoire, Yany and Robert J. Fisher (2008), "Customer betrayal and retaliation: When your best customers become your worst enemies," *Journal of the Academy of Marketing Science*, 36 (2), 247–261.
- , Daniel Laufer, and Thomas M. Tripp (2010), "A comprehensive model of customer direct and indirect revenge: Understanding the effects of perceived greed and customer power," *Journal of the Academy of Marketing Science*, 38 (6), 738–758.

- , Audrey Salle, and Thomas M. Tripp (2015), “Managing social media crises with your customers: The good, the bad, and the ugly,” *Business Horizons*, EMERGING ISSUES IN CRISIS MANAGEMENT, 58 (2), 173–82.
- Kowalski, R M (1996), “Complaints and complaining: functions, antecedents, and consequences,” *Psychological bulletin*, 119 (2), 179–96.
- Nyer, Prashanth U. (2000), “An investigation into whether complaining can cause increased consumer satisfaction,” *Journal of Consumer Marketing*, 17 (1), 9–19.
- Pennebaker, James. W (1993), “Putting stress into words: health, linguistic, and therapeutic implications,” *Behaviour research and therapy*, 31 (6), 539–48.
- Pennebaker, James W. (1997), *Opening up: the healing power of expressing emotions*, Guilford Press.
- Ward, James C. and Amy L. Ostrom (2006), “Complaining to the masses: The role of protest framing in customer-created complaint web sites,” *Journal of Consumer Research*, 33 (2), 220–30.

# Appendices

## Appendix 1

### Scales and Items for Essay 1

- Desire for Revenge (Aquino, Tripp, and Bies 2006):
  - At the current moment, I want to...
    - ...take actions to get the firm in trouble.
    - ...punish the firm in some way.
    - ...cause inconvenience to the firm.
    - ...get even with the firm.
    - ...make the firm get what it deserved.
- Rumination (McCullough, Bono, and Root 2007):
  - I couldn't stop thinking about what the firm did to me.
  - Thoughts and feelings about how the firm hurt me kept running through my head.
  - Strong feelings about what this firm did to me kept building up.
  - Images of the service failure kept coming back to me.
- Marketplace Aggression (Douglas and Martinko 2001):
  - At the time of the service failure...
    - ...I damaged property belonging to the service firm.
    - ...I deliberately bent or broke the policies of the firm.
    - ...I showed signs of impatience and frustration to someone from the firm.
    - ...I hit something or slammed a door in front of (an) employee(s).
- Vindictive Complaining (Hibbard, Kumar, and Stern 2001):
  - At the time of the service failure, I complained to the service firm to ...
    - ...give a hard time to the representatives.
    - ...be unpleasant with the representatives of the company.
    - ...make someone from the organization suffer for their services.
    - ...say rude things to the frontline employees.
- Negative word-of-mouth (Maxham and Netemeyer 2002):
  - Since the service failure...
    - ...I spread negative word-of-mouth about the firm.
    - ...I bad-mouthed against this firm to my friends.
    - ...when my friends were looking for a similar product or service, I told them not to buy from this firm.
- Third-party complaining for legal sources:

- After the service failure, I wrote a Rip-off/ConsumersAffair report ...
  - ...to find a legal remedy to my problem.
  - ...to have access to legal expertise.
  - ...to be in contact with attorneys who could help me with the failure.

## Appendix 2

### Scenario of Study 1 of Essay 2

#### *Scenario*

*Try to picture yourself in the situation you are about to read. Please feel free to read it as many times as you need. Then, answer the questions as if you were the individual facing this incident. There are no right and wrong answers, so please take your time and answer each question honestly.*

You are about to move to a new apartment. In order to move your furniture, you need to rent a truck. Two weeks before the move, you searched online for different options, and ended up choosing one well established moving company. You chose a 14' truck, and a nearby location to pick it up.

One day before moving day, the rental company sent you an email:

“Dear customer,

We have a 14' Moving Van reserved for you from tomorrow at 8:00 AM. Please note that we changed the pick-up address that you initially selected. The van is located [here-hyperlink](#) – a new address instead.

If this does not work for you, please call us at 1-800 toll free number.  
Sincerely,

Customer service team”

Clicking on the hyperlink, you found out that the new pick-up location was about 15 miles away from the prior location. It meant that you would have to “waste” about two hours of your time to get there by public transport. You tried calling their customer service but an answering machine asks you to call back between 8 AM and 5 PM.

A brief search showed that no other truck was available from any other company for tomorrow morning. You absolutely had to move out of your apartment the following day. So, rescheduling the moving is not an option.

#### *Marketplace Aggression*

Having no other choice, you go to the new address to pick up the truck. You arrive there expecting to receive a sincere apology and acknowledgement of service failure. However, the employee responds to you that if you are not happy you can cancel your reservation.

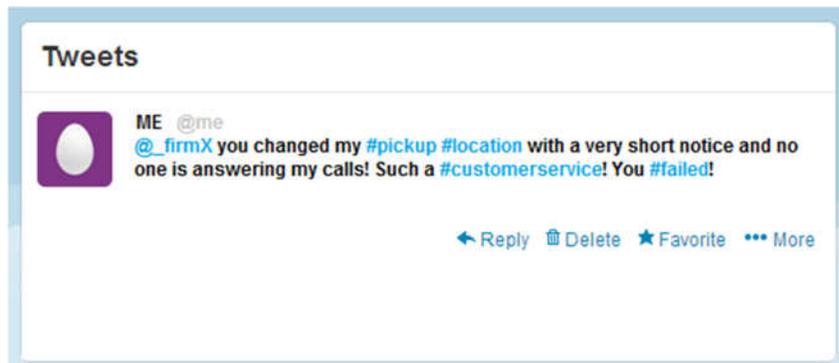
Angry with this response, you take the truck and break its radio on purpose while using it; however, you do not report it when you return the truck.

### ***Vindictive Complaining***

Having no other choice, you go to the new address to pick up the truck. You arrive there expecting to receive a sincere apology and acknowledgement of service failure. However, the employee responds to you that if you are not happy you can cancel your reservation. Angry with this response, you shout at him that “I will never use your truck again! You and your company are terrible. I have never seen such reckless company in my life. You are awful.”

### ***Negative word-of-mouth***

Having no other choice, you go to the new address to pick up the truck. You arrive there expecting to receive a sincere apology and acknowledgement of service failure. However, the employee responds to you that if you are not happy you can cancel your reservation. Angry with this response, you walk out while you voice your complaint in a Tweet that:



### ***Third-party Complaining***

Having no other choice, you go to the new address to pick up the truck. You arrive there expecting to receive a sincere apology and acknowledgement of service failure. However, the employee responds to you that if you are not happy you can cancel your reservation. Angry with this response, you decide to walk out immediately and seek some legal advice from some online customer advocacy sites.

### ***Control***

Given this situation, you take no further action.

## Appendix 3

### Scenario of Study 2 of Essay 2

#### *Scenario*

*Try to picture yourself in the situation you are about to read. Please feel free to read it as many times as you need. Then, answer the questions as if you were the individual facing this incident. There are no right and wrong answers, so please take your time and answer each question honestly.*

You are about to move to a new apartment. In order to move your furniture, you need to rent a truck. Two weeks earlier, you searched online for different options, and ended up choosing one well-established moving company – *ABC Rental*. You selected a 14' truck, and a nearby location to pick it up. One day before moving day, the rental company sent you an email:

“Dear customer,

We have a 14' moving van reserved for you from tomorrow at 8:00 AM. Please note that we changed the pick-up address that you initially selected. The van is located here (hyperlink) – a new address instead. If this does not work for you, please call us at 1-800 toll free number.

Sincerely,  
ABC Rental customer service team”

By clicking on the hyperlink, you found out that the new pick-up location was about 15 miles away from the prior location. It meant that you would have to *waste* about two hours of your time and \$50 of your money to get there by cab. You called their customer service. But, no one answered your call. You absolutely had to move out of your apartment the following day. So, the only option left is to go to the new pick-up location.

In the morning of moving day, you arrive there and explain the situation to the supervisor while expecting to receive a sincere apology. Surprisingly, the supervisor coldly responds “there is nothing I can do for you. I can only cancel your reservation without penalty if you want.”

The employee’s cold response makes you upset. Damn! You wish you could cancel the truck. But, you have no other option. So, you have to pick up the truck. But, at the same time you think of a way to punish the company! They shouldn’t treat their customers this way!

In a second, you think that you could react to what happened in either of these two ways. You could take action in the supervisor’s face. This way, you make sure that the supervisor and the company are aware of what you did. You could take action behind the supervisor’s back. This way, you make sure that the supervisor and the company are not aware of what you did, at least at the moment you took action.

***Revenge Behaviors Manipulation***

<b><i>Direct Revenge</i></b>	<b><i>Indirect Revenge</i></b>
<p>You make up your mind and decide to take action in the supervisor's face. This way, you believe you could better get even with them. So, you put into effect what you planned beforehand. You bring your 5-gallon water jug that contains your collected spare change. You want to pay the truck rental cost by change! You know how irritating is to count all these coins, let alone deposit this amount of money in change! Besides, you know that the bank would charge them to count all these coins and it would take couple of days until the bank deposit the money into ABC Rental's account. When you bring the coins, the supervisor seems completely overwhelmed. Because, he knows your act is totally legal but it makes a lot of trouble for him and the company.</p>	<p>You make up your mind and decide to take action behind the supervisor's back. This way, you believe you could better get even with them. So, that night, while you are hanging out with your friends, you tell them furiously that: "The ABC Rental has changed my pick-up location last minute and its supervisor doesn't even bother to show that he's sorry! Never use their trucks! Go to XYZ TRUCK (ABC Rental's main competitor)."</p>