

THE EFFECTS OF POWER AND ASSURANCE OF NO FUTURE TRANSGRESSIONS ON  
POST-TRANSGRESSION RESPONSES

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## Abstract

The primary aim of this Dissertation was to investigate the effect of power on victims' decision to seek revenge against, or hold a grudge against, or forgive the transgressor following a transgression. The secondary aim of this Dissertation was to examine one potential boundary condition as well as potential mechanisms that underlie these effects. Guided by the approach/inhibition theory of power (Keltner et al., 2003), it was hypothesized that power would have a differential effect on post-transgression responses. As predicted, Study 1 showed that power had a positive effect on revenge and a negative effect on grudge. Also as predicted, Study 2 showed that approach motivation was one mechanism underlying the power-revenge relation and inhibition motivation was one mechanism underlying the power-grudge relation. In both studies, power did not have an effect on forgiveness. In addition, Studies 3 and 4 demonstrated the moderating role of assurance of no future transgression on the relation between power and post-transgression responses. Under conditions of assurance, powerful and powerless victims were less likely to seek revenge and hold a grudge, respectively, and were more likely to forgive. Finally and contrary to the prediction, results from Study 4 showed that there was no evidence for the mediational role of victims' 'lack of a need to teach the transgressor a lesson' and 'safety' on the moderation between power and assurance on post-transgression responses. Possible explanations of these results and limitations of this research are discussed.

*Key words:* Power, Assurance, Revenge, Grudge, Forgiveness.

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## TABLE OF CONTENTS

Abstract.....	ii
Acknowledgments.....	iii
Table of Contents.....	v
List of Table.....	vii
List of Figures.....	viii
Introduction.....	1
Power.....	1
Approach/Inhibition Theory of Power.....	3
Revenge.....	5
Grudge.....	6
Forgiveness.....	8
Assurance of No Future Transgressions.....	10
Previous Research on Power, Revenge, Grudge, and Forgiveness.....	14
Summary, Hypotheses, and Overview of Research.....	15
Study 1.....	17
Method.....	17
Materials.....	17
Procedure.....	19
Results.....	19
Study 2.....	22
Method.....	22

Materials.....	22
Procedure.....	24
Results.....	24
Study 3.....	29
Method.....	29
Materials.....	29
Procedure.....	31
Results.....	33
Study 4.....	38
Method.....	40
Materials.....	40
Procedure.....	42
Results.....	42
Discussion.....	49
Limitations and Future Research.....	57
Conclusion.....	58
References.....	60
Footnotes.....	78
Appendix A.....	80

## LIST OF TABLES

Table 1.....	20
Table 2.....	25
Table 3.....	34
Table 4.....	44

## LIST OF FIGURES

Figure 1.....	27
Figure 2.....	36
Figure 3.....	39
Figure 4.....	46
Figure 5.....	48
Figure 6.....	50

# The Effects of Power and Assurance of no Future Transgressions on Post-Transgression Responses

During the process of forming, developing, and maintaining social relationships, individuals often commit transgressions against one another. Following such transgressions and among the many potential responses available, victims can decide to respond in an antisocial manner such as seeking revenge, or holding a grudge, against the transgressor, or in a prosocial manner such as forgiving the transgressor. One interpersonal factor that is omnipresent in social interactions and is likely to influence victims' responses following a transgression is power. The primary aim of this Dissertation was twofold. The first was to investigate the effect of power on victims' decision to seek revenge against, hold a grudge against, or forgive the transgressor following a transgression. The second was to examine two potential mechanisms underlying these effects, namely, approach- and inhibition- motivation. The secondary aim of this research was also twofold. The first was to investigate the effect of assurance of no future transgression as one potential moderator of the relation between power and post-transgression responses. The second was to examine two mechanisms explaining this moderation, namely, victims' 'lack of a need to teach the transgressor a lesson' and 'safety.'

## **Power**

Because power is fundamental to, and pervasive in, many social relationships and interactions (Bruins, 1999; Cartwright, 1959; Fisk 1992; Guinote & Vescio, 2010; Keltner, Gruenfeld, & Anderson, 2003; Overbeck, 2010; Smith & Galinsky, 2010; Turner, 2005), it has been extensively researched. Early theorists in social psychology conceptualized power as a force. In their formal theory of power, for example, French and Raven (1959), considered social power as an agent's ability to impact a target using various forms of influence such as controlling

rewards and punishments, utilizing one's formal position and expertise, and using one's personal attributes. Later theorists conceptualized power as control. For example, Thibaut and Kelly (1959) argued that power has two forms: control over others' outcomes and control over others' behaviours; Fiske (1993), in her Power as Control model, argued that power is the control over other people's outcomes; and Pfeffer and Salancik (1978), in their resource dependence theory, argued that power is the possession of resources that other individuals depend on and value.

Other theorists conceptualized power based on societal groups. For example, in his three-process theory, Turner (2005) argued that power emerges from the influence that a cohesive social group exerts, and in their social dominance theory of power, Sidanius and Pratto (1999) argued that the higher one's preference for dominance is, the more likely one is to endorse hierarchical ideologies that give rise to group-based inequalities. More recent theorists of power focused on the situation. For example, in her situated focus theory of power, Guinote (2007a) argued that power increases the variability of behaviours and judgments through a focus on the situation in a given environment and through selective attention. Finally, the most recent theorists of power focused on the distance that social power creates. For example, in their social distance theory of power, Magee and Smith (2013) argued that power increases social distance between two parties and produces asymmetry, with those who possess power perceiving the distance greater than those who possess less power.

Despite its various conceptualizations, power is most widely defined as an individual's capacity to control one's own and others' outcomes (Dépret & Fiske, 1993; Fisk, 1993; Galinsky, Gruenfeld, & Magee, 2003; Guinote, 2007b; Keltner et al. 2003; Overbeck & Park 2001; Thibaut & Kelly, 1956). One theory in particular that sheds light on how power might differentially influence victims' decision to seek revenge against, or hold a grudge against, or

forgive the transgressor following a transgression, is the approach/inhibition theory of power (Keltner et al., 2003).

**Approach/Inhibition Theory of Power.** According to this theory, elevated power is associated with the behavioural approach system (BAS) (Gray 1981, 1982) and therefore activates approach-related processes. In contrast, reduced power is associated with the behavioural inhibition system (BIS) (Gray 1981, 1982) and therefore activates inhibition-related processes. The BAS is believed to regulate behaviours related to sex drive, hunger, safety, achievement, and aggression, is associated with greater left-hemispheric activation, and is triggered by approach-related processes such as obtaining goals associated with rewards and opportunities (Carver & White, 1994; DePue, 1995; Keltner et al., 2003; Nash, McGregor, & Inzlicht, 2010; Sutton & Davidson, 1997). The BIS, in comparison, is considered an alarm-threat system that regulates anxiety, heightened vigilance, punishment, avoidance, and inhibited responses, is associated with greater right-hemispheric activation, and is triggered in the face of punishment, threat, and uncertainty (Carver & White, 1994; Keltner et al., 2003; Sutton & Davidson, 1997).

According to Keltner et al., (2003), power is mainly associated with the approach system because powerful individuals enjoy various rewards such as financial, physical, and social resources which allow them to act at will without serious consequences or interference from others. In contrast, powerlessness is associated with the inhibition system mainly because powerless individuals enjoy less rewards and social resources, making them subject to social threats, punishment, and sensitivity to evaluations and constraints from others. Given the association between elevated power and the BAS, power should be associated with an increased attention to potential rewards and with less motivation to attend to the consequences of one's

actions (Keltner et al., 2003). In contrast, given the association between reduced power and the BIS, reduced power should be associated with an increased sensitivity to threats and punishment and with an increased likelihood of more deliberate attention to the consequences of their actions (Keltner et al., 2003).

Research has confirmed hypotheses derived from this theory. Compared to a reduced sense of power, an increased sense of power was associated with greater relative BAS strength, approach tendencies, and risky behaviour (Anderson & Galinsky, 2006; Magee, Galinsky, Gruenfeld., 2007; Smith & Bargh, 2008). In addition, compared to powerless individuals, powerful individuals were more likely to be action oriented, focus on prioritizing and accomplishing their goals (Galinsky et al., 2003; Guinote, 2007c; Magee et al., 2007), notice and seek rewards in their environment (Anderson & Berdahl, 2002; Zander & Forward, 1968), and focus on themselves rather than on others (Galinsky, Magee, Inesi, & Gruenfeld, 2006). Finally, compared to powerless individuals, powerful individuals were less motivated to carefully attune to the actions and attitudes of others (Keltner & Robinson, 1997) and were less outcome-dependent on others (Erber & Fiske, 1984).

In summary, according to the approach/inhibition theory of power (Keltner et al., 2003), increased power is associated with rewards and freedom which then trigger approach-related processes, disinhibited behaviour, and a general focus on attaining and satisfying one's goals. In contrast, reduced power is associated with decreased resources, triggering inhibition-related processes, constrained behaviour, vigilance, and a general focus on threats and avoiding punishment.

The approach/inhibition theory of power (Keltner et al., 2003) can be used to better understand how victims of transgressions may differentially decide to seek revenge or hold a

grudge against transgressors. Specifically, powerful victims should respond to transgressions in an approach-oriented manner by acting in ways that help them to achieve rewarding goals. Powerless victims, in contrast, should respond to transgressions in an inhibited-oriented manner by focusing on the threat and being vigilant against future transgressions. One approach- and goal-oriented post-transgression response is revenge (McCullough, 2008), and one inhibition- and vigilance-oriented post-transgression response is grudge (Baumeister, Exline, & Sommer, 1998; Bunker & Ball, 2009).

### **Revenge**

Revenge is largely defined as an attempt to harm another person in response to feeling harmed by that person (Aquino, Tripp, & Bies, 2001; Kim & Smith, 1993; McCullough, 2008). In addition, revenge is considered as an approach-oriented and reward-seeking behaviour (Schumann & Ross, 2010). For example, planning and pursuing revenge has been shown to be associated with a region of the brain that is activated when one pursues a goal, namely, the left-prefrontal hemispheric region. In a study where participants received an insult, those who reported being the most angry and who sought the most revenge, were also shown to have the most activation in their left-prefrontal cortex (Harmon-Jones & Sigelman, 2001; Harmon-Jones, Vaughn-Scott, Nohr, Sigelman, & Harmon-Jones, 2004; McCullough, 2008). Revenge has also been associated with rewards and pleasure. For example, individuals have been shown to experience enjoyment when planning and seeking revenge as well as a feeling of gratification after taking revenge against someone who had harmed them (Bushman, Baumeister, & Phillips, 2001; McCullough, 2008; Singer et al., 2006).

Furthermore, although seeking revenge could be costly, it has evolved to serve intra- and inter-personal benefits. For example, although revenge is negatively associated with physical and

mental health such as increased cardiovascular reactivity (Lawler, et al., 2003, 2005), post-traumatic stress symptoms (Cardozo, Kaiser, Gotway, & Agani, 2003), and depression (Ysseldyk, Matheson, & Anisman, 2007), revenge has evolved to be functional (McCullough, 2008). Specifically, when pursuing revenge, one's aim is to punish the transgressor for committing the transgression, to teach him or her a lesson to not repeat the same transgression again, and to teach others a lesson to refrain from committing similar transgressions against the victim (McCullough, 2008; McCullough, Kurzban, & Tabak, 2010; McCullough, Root, Tabak, & Witvliet, 2009; Schumann & Ross, 2010). Seeking revenge has also been shown to restore justice and regain balance (Bies, Tripp, & Kramer, 1997; Boon, Alibhai, & Deveau, 2011; Boon, Deveau, & Alibhai, 2009; Miller & Vidmar, 1981; Solomon, 1994), redress the negative feelings experienced by the victim (Boon et al., 2009, 2011), restore a sense of self-esteem and reputation (Baumeister, 1997; Boon et al., 2011, Zdaniuk & Bobocel, 2012), and cause a desired change in the transgressor (Boon et al., 2009).

To the extent that powerful individuals are likely to act in an approach- and goal-oriented manner, and that revenge is considered an approach- and goal-oriented behaviour, powerful victims are predicted to act in a vengeful manner following a transgression. Thus, power is predicted to have a positive effect on revenge whereby the more powerful the victims feel, the more likely they will seek revenge against the transgressor. In addition, this is expected to occur because of approach-related processes.

### **Grudge**

Researchers who focused on unforgiving responses following a transgression have typically operationalized unforgiveness as seeking revenge and avoiding the transgressor (Berry, Worthington, O'Connor, Parrott, & Wade, 2005; McCullough 2008; McCullough et al., 1998;

McCullough, Pargament, & Thorsesen, 2000; McCullough, Worthington, & Rachal, 1997; Worthington & Wade, 1999). However, another common, yet largely ignored, unforgiving response following a transgression is holding a grudge (Exline & Baumeister, 2000; Rapske, Boon, Alibhai, & Kheong, 2010). Despite the dearth of research on this construct, grudge is generally defined as a decision to withhold forgiveness from the transgressor and to hold onto negative feelings and thoughts toward him or her (Baumeister et al., 1998; McCullough et al., 2000; Wixen, 1971). In addition, grudge-holding is considered to be an inhibited state. For example, according to Bunker and Ball (2009), grudge is a state that is mainly associated with inaction, avoidance, and passiveness. Specifically, unlike primary control where one engages in active behaviour to alter the situation to one's liking, grudge-holding is considered as a secondary control, whereby one changes the self, altering his or her own internal processes.

Furthermore, although holding a grudge against the transgressor following a transgression could have detrimental effects, holding a grudge could have numerous benefits. For example, although holding a grudge erodes physical and mental health (Messias, Saini, Sinato, Welch, 2010; Rapske et al., 2010; Spiers, 2004; Subkoviak, Enright, Wu, 1995; Witvliet, Ludwig, & Vander Laan, 2001; Worthington & Scherer, 2004), perpetuates suffering every time the victim thinks about, and re-experiences, the negative event (Witvliet et al., 2001), and reduces feelings of relatedness and increases loneliness (Baumeister & Leary, 1995), holding a grudge has its benefits. One of the main benefits of holding a grudge is self-protection (Baumeister et al., 1998; Rapske et al., 2010). Specifically, holding a grudge could be considered a vigilant state whereby the victim is on guard, is looking to protect him or herself from the transgressor, and is looking to protect him or herself from future harm. Holding a grudge is also thought to boost short-term immune responses, focus cognition toward escaping danger, and

enable victims to maintain the victim role, reaping benefits such as claiming moral high ground by virtue of having been wronged (Baumeister et al., 1998; Worthington & Scherer, 2004).

To the extent that powerless individuals are likely to respond in an inhibited and vigilant manner, and that grudge-holding is considered an inhibited and vigilant state, powerless victims are predicted to hold a grudge against the transgressor following a transgression. Thus, power is predicted to have a negative effect on grudge, whereby the less powerful the victims feel, the more likely they will hold a grudge against the transgressor. In addition, this is expected to occur because of inhibition-related processes.

### **Forgiveness**

Research on forgiveness has burgeoned during recent decades (McCullough et al., 2009). Forgiveness is generally defined as a motivated decision to let go of one's negative feelings toward the transgressor and replace them with positive feelings (McCullough, 2008; McCullough et al., 2000). Regarding the association between power and forgiveness, this relation is unclear. Specifically, the approach/inhibition theory of power (Keltner et al., 2003) is silent on the direct relation between power and prosocial behaviour. According to the theory, power is largely associated with antisocial behaviour such as aggression and socially inappropriate behaviour. For example, powerful individuals have been shown to be more likely to engage in socially undesirable acts (Kipnis, 1972; Overbeck & Park, 2006), less concerned with the social consequences or implications of their behaviour (Galinsky et al., 2003; Magee et al., 2007), and more hypocritical in their judgments of immoral behaviour (Lammers, Stapel, & Galinsky, 2010). The theory proposes, however, that the relation between power and prosocial behaviour is likely to be moderated, whereby under certain conditions, power should become positively associated with prosocial behaviour (Keltner et al., 2003). Research has supported this

theorizing. For example, under conditions of communal orientation (Chen, Lee-Chai, Bargh, 2001), social responsibility (Winter & Barenbaum, 1985), prosocial orientation (Côté et al., 2011), cues of altruism (Hirsh, Galinsky, & Zhong, 2011), a perception of procedural justice (Aquino, Grover, Goldman, & Folger, 2003), in situations where the only actions available are prosocial (Galinsky et al., 2003), and when the level of commitment to the relationship is taken into consideration (Karremans & Smith, 2010), power becomes positively associated with prosocial behaviour.

To the extent that forgiveness is a prosocial change toward the transgressor (McCullough et al., 2000), and that power, under certain conditions, is associated with prosocial behaviour, power is unlikely to be directly associated with forgiveness. Thus, given the unclear direct relation between power and forgiveness, and in the absence of any moderating variables, no predictions were made regarding the direct relation between power and forgiveness.

Thus far, it is predicted that power would be associated with antisocial responses (i.e., revenge and grudge) and it is unclear how it would be directly associated with prosocial responses (i.e., forgiveness). Forgiveness, however, is a fundamental part of life and has numerous benefits that outweighs its costs. For example, although one potential drawback of forgiveness is that the victim opens the door to potential future transgressions (McNulty, 2010, 2011), forgiveness has numerous intra- and inter-personal benefits. Intra-personally, forgiveness has demonstrated meaningful improvements in victims' physical and psychological well-being (Berry & Worthington, 2001; Freedman & Enright, 1996; Karremans, Van Lange, Ouwerkerk, & Kluwer, 2003; Maltby & Day, 2001; Toussaint, Williams, Musick, & Everson, 2001; Witvliet et al., 2001) and has been negatively associated with anxiety, depression, hostility (Brown, 2003; Thompson et al., 2005), and cardiovascular reactivity (Lawler et al., 2003; Witvliet et al., 2001).

Inter-personally, forgiveness has been shown to be beneficial to, and foster, the relationship between the victim and the offender (Karremans & Van Lange, 2004; McCullough et al., 1998). Furthermore, the benefits of forgiveness have been shown to spill over and extend beyond the relationship. Forgiveness, for example, decreases antisocial interactions (Aquino & Douglas, 2003; Exline, Baumeister, Bushman, Campbell, & Finkel, 2004), increases prosocial acts such as volunteering and contributing to charity (Karremans & Van Lange, 2004; Karremans, Van Lange, Holland, 2005), and promotes a general satisfaction with life (Bono, McCullough, & Root, 2008).

Because forgiveness is fundamental and beneficial to victims as well as relationships, it would be non-functional if powerful and powerless victims would only engage in antisocial responses following a transgression. In addition, given that power, under certain conditions, is likely to be associated with prosocial responses, it is highly likely that there are boundary conditions under which powerful and powerless victims will become more likely to forgive. Thus, in this Dissertation I argue that, although power is likely to be associated with antisocial responses following a transgression, there are certain conditions under which both the powerful and the powerless will become less antisocial (i.e., less vengeful and less likely to hold a grudge, respectively) and more prosocial (i.e., more forgiving). One such boundary condition is assurance from the transgressor that he or she will not hurt the victim again.

### **Assurance of no future transgressions**

One factor that has been shown to play a major role in repairing relationships following a transgression is repentance (Bottom, Gibson, Daniels, & Murnighan, 2002; Brooks, 1999; Davis; 2002; Dirks, Lewicki, & Zaheer, 2009; Exline & Baumeister 2000; Fehr & Glefand, 2010; Goffman, 1955; Hodgins & Liebeskind, 2003; Kim, Dirks, Cooper, & Ferrin, 2006; Lazare 2004;

Tomlinson, Dineen, & Lewicki, 2004; Worthington & Wade 1999). Repentance has been shown to decrease retaliation and punishment (Bies & Tripp, 1996; Darby & Schlender 1982), reduce aggression (Eaton & Struthers, 2006; Ohbuchi, Kameda, & Agari, 1989), decrease blame (Darby & Schlender 1982; Zechmeister, Garcia, Romero, & Vas, 2004), increase benevolent attributions (Takaku, 2001), increase empathy (McCullough et al., 1997; McCullough et al., 1998), and most importantly increase forgiveness (Baumeister et al., 1998; Eaton, Struthers, & Santelli, 2006; Exline & Baumeister, 2000; Fincham, 2000; Hui, Lau, Tsang, & Pak 2011; McCullough et al., 2000; McCullough, Fincham, & Tsang, 2003; North, 1998; Struthers, Eaton, Mendoza, Santelli, & Shirvani, 2010; Struthers et al., in press). In addition, the positive effects of repentance on repairing relationships have been shown to take place across different relationship contexts (Eaton & Struthers, 2006), ages (Darby & Schlenker, 1982), individual differences (Eaton et al., 2006; Khoury, Struther, Santelli, & Marjanovic, 2012; Santelli, Struthers, & Eaton, 2009), cultures (Fukuno & Ohbuchi, 1998; Merolla, Zhang, & Sun, 2012; Takaku, 2001; Takaku, Weiner, & Ohbuchi., 2001), levels of transgression-severity (Bennett & Earwalker, 1994; Darby & Schlenker 1981; Ohbuchi et al., 1989) and time (Frantz & Bennis, 2004).

Through repentance, transgressors apologize for, acknowledge, and accept responsibility for, the negative event (Blum-Kulka et al., 1989; Eaton & Struthers, 2006; Gill, 2000; Hui et al., 2011; Lazare, 2004; Scher & Darley, 1997; Schlenker & Darby, 1981; Struthers, Eaton, Santelli, Uchiyama, & Shirvani, 2008; Tavuchis, 1991; Weiner, Graham, Peter, & Zmuidinas, 1991). However, one particular component of repentance that is crucial for the repair process and in promoting forgiveness is assurance of no future transgressions (Exline & Baumeister, 2000; Gill, 2000; Lazare, 2004; McCullough 2008; McCullough et al., 1997; McCullough et al., 2009; McCullough et al., 2010; Scher & Darley, 1997; Schlenker & Darby, 1981). In fact, according to

McCullough (2008), assurance from the transgressor that he or she will not harm the victim again is one imperative precursor to forgiveness.

The positive effect of assurance of no future transgression on prosocial behaviour is supported by the attributional theory of motivation and emotion (Weiner, 1985). According to this theory, one crucial factor that determines victims' prosocial behaviour toward the transgressor following a transgression is their attribution of the stability of the cause of the event (Gold & Weiner, 2000; Heider 1958, Weiner 1985, 1986; Weiner et al., 1991). If the cause is stable, then a similar event would be expected to happen again. If, however, the cause is unstable, then the expectancy of a future occurrence is reduced. One way in which transgressors could communicate to victims the instability of their negative act, and thus increase victims' prosocial behaviour toward them, is through reassuring the victims that the transgression will not re-occur in the future (Dirks et al., 2009; Gold & Weiner, 2000; Weiner, 1986).

In addition, a victim's assessment of the probability of a future violation predicts the victims' willingness to reconcile with the offender (Tomlinson et al., 2004). Victims, for example, find it most difficult to forgive transgressors who continuously repeat transgressions against them (Tomlinson et al., 2004). However, when transgressors offer victims assurance of no future transgression, transgressors communicate to the victim their sense of redemption (Scher & Darley, 1997) and convey a level of sincerity, especially when their assurance is followed by consistent behaviours (Gill, 2000). Thus, to the extent that victims perceive the transgressor to have a change of heart and desires to do good in the future, their benevolence and willingness to forgive increases (Exline & Baumeister, 2000; Tomlinson & Mayer, 2009).

Research has supported the effect of assurance of no future transgressions on prosocial behaviour. Commitment to avoid hurting the victim again and promises that conveyed intentions

to not repeat the transgression in the future have been associated with restored trust (Nakayachi & Watabe, 2005; Xie & Peng, 2009), increased cooperation (Bottom et al., 2002; Orbell, Dawes, & van de Kragt, 1998, Schlenker, Helm, & Tedeschi, 1973), and forgiveness (Hui et al., 2011). Research also showed that promises to not repeat the transgression in conjunction with consistent actions improved trust (Dirks, Kim, Ferrin, & Cooper, 2010; Schweitzer, Hershey, Bradlow, 2006) as well as forgiveness (Hui et al., 2011).

Thus, given the positive effect of assurance of no future transgression on prosocial behaviour, I predict that assurance of no future transgression will moderate the relation between power and post-transgression responses. Specifically, under conditions of assurance of no future transgressions, powerful victims are predicted to be less likely to seek revenge and most likely to forgive, and powerless victims are predicted to be less likely to hold a grudge and most likely to forgive.

One reason why assurance of no future transgression is likely to increase forgiveness is because there would be no need to teach the transgressor a lesson to not repeat the transgression again (Exline & Baumeister 2000; McCullough, 2008; McCullough et al., 2010). Following a transgression, victims are hurt and they are motivated to prevent the transgression from happening again. One way victims could accomplish this is through seeking revenge and teaching the transgressor a lesson to not repeat the transgression in the future (McCullough, 2008). However, when transgressors assure the victim that they will not hurt them again, then there would be no need for the victim to teach the transgressor a lesson not to do so.

Given that powerful victims are likely to seek revenge and that seeking revenge satisfies the goal of teaching the transgressor a lesson to not repeat the transgression again (McCullough 2008; McCullough et al., 2009, 2010), under conditions of assurance, powerful victims are

predicted to be less vengeful and more forgiving because their goal of teaching the transgressor a lesson to not repeat the transgression again would already be achieved.

Another reason why victims are likely to forgive transgressors following an assurance of no future transgressions is because they would feel safe (Exline & Baumiester, 2000; McCullough, 2008; McCullough et al., 2009, 2010). Following transgressions, victims are hurt and are motivated to prevent the transgression from reoccurring. One way victims could accomplish this is through holding a grudge and protecting themselves from future harm. However, when victims are assured that the transgressor will not hurt them again, their attribution of the stability of the cause of the transgression is decreased, their fear is lessened, and their sense of safety is increased (Weiner, 1986).

Given that powerless victims are likely to hold a grudge and that holding a grudge protects oneself from future harm (Baumiester et al., 1998; Rapske et al., 2010), under conditions of assurance, powerless victims are predicted to be less likely to hold a grudge and more likely to forgive because they would feel safe knowing that the transgressor will not hurt them again.

In summary, the reason why under conditions of assurance of no future transgression powerful victims are predicted to be less vengeful and more forgiving is because they would feel less of a need to teach the transgressor a lesson to not repeat the transgression again. Similarly, the reason why under conditions of assurance powerless victims are predicted to be less likely to hold a grudge and more likely to forgive is because they would feel safe knowing that the transgressor will not hurt them again.

### **Previous research on power, revenge, grudge, and forgiveness**

Although power has been shown to positively relate to revenge (Aquino & Douglas, 2003; Aquino, Tripp, & Bies, 2006; Aquino et al., 2001; Kim, Smith, & Brigham, 1998), power

has been under-researched in relation to grudge. Preliminary evidence showed an association between powerlessness and grudge-holding (Bunker & Ball, 2009; Grégoire, Tripp, & Legoux, 2009), however, this research failed to include a direct measure of powerlessness, used a mixed operationalization of grudge combining it with revenge and avoidance, and it failed to examine the relation between power, revenge, grudge, and forgiveness simultaneously. In addition, previous research has not investigated approach- and inhibition-motivation as two potential mechanisms through which power influences post-transgression responses. Guided by Keltner's et al., (2003) approach/inhibition theory of power, the current research addresses these gaps in the literature. Furthermore, power has been under-researched in relation to forgiveness. In two studies, power was shown to be unrelated to forgiveness (Aquino et al., 2001; Aquino et al., 2006), however in another study, power was shown to positively relate to forgiveness, especially under conditions of commitment (Karremans & Smith, 2010). The current research seeks to further investigate the relation between power and forgiveness, examine assurance of no future transgression as one potential moderator, and explore the role of victims' 'lack of a need to teach the transgressor a lesson' and 'safety' as two potential mechanisms to this moderation.

### **Summary, Hypotheses, and Overview of Research**

Following transgressions, victims often decide among three post-transgression responses to manage their relationships: to seek revenge against, hold a grudge against, or forgive the transgressor. One factor that might influence victims' post-transgression responses is the degree of power they have. The primary aim of this Dissertation was to investigate how power differentially affects victims' responses following a transgression. The secondary aim of this Dissertation was to examine one potential boundary condition as well as a number of potential mechanisms that explain the predicted effects. Guided by the approach/inhibition theory of

power (Keltner et al., 2003), the first hypothesis was that power would have a positive effect on revenge and a negative effect on grudge. Regarding forgiveness, in the absence of any moderators, the direct relation between power and forgiveness is unclear, and thus no predictions were made regarding this relation. The second hypothesis was that the power-revenge relation would be mediated by approach-motivation and that the power-grudge relation would be mediated by inhibition-motivation. The third hypothesis was that assurance of no future transgressions would moderate the relation between power and post-transgression responses. Specifically, compared to no assurance, under conditions of assurance that the transgressor would not hurt the victim again, powerful and powerless victims were predicted to be less antisocial (i.e., less vengeful and less likely to hold a grudge, respectively) and most likely to be prosocial (i.e., forgiving). Finally, the fourth hypothesis was that the moderated relation between power and victims' post-transgression responses would be explained by victims' 'lack of a need to teach the transgressor a lesson' and 'safety.' Specifically, it was predicted that the reason why powerful victims would be less vengeful and more forgiving is because there would be no need to teach the transgressor a lesson to not repeat the transgression again. Similarly, the reason why powerless victims would be less likely to hold a grudge and more forgiving is because they would feel safe knowing that the transgressor will not hurt them again.

In order to test the above hypotheses, four studies were conducted. The purpose of Study 1 was to investigate the effect of power on revenge, grudge, and forgiveness. This Study was an experiment, used a sample of undergraduates as well as nonstudent adults, and used a retrospective transgression. The purpose of Study 2 was to examine the mediating role of approach on the power-revenge relation, and inhibition on the power-grudge relation. This Study was an experiment, used a sample of undergraduates, and used an actual transgression. The

purpose of Study 3 was to investigate the moderating role of assurance of no future transgressions on the relation between power and post-transgression responses. This study was an experiment, used a sample of undergraduates, and used an actual transgression. Finally, the purpose of Study 4 was to examine the mediating role of victims' 'lack of a need to teach the transgressor a lesson' and 'safety' on the moderation of assurance of no future transgression and power on post-transgression responses. This study was an experiment, used a sample of undergraduates, and used a scenario transgression.

### **Study 1**

The aim of Study 1 was to investigate the effects of power on revenge, grudge, and forgiveness.

#### **Method**

**Design.** This Study used a one-way design whereby power was manipulated into low and high, and participants were randomly assigned to the different experimental conditions.

**Participants.** Participants were 180 (75 Males, 105 females) undergraduates as well as nonstudent adults who were on average 29.9 years old,  $SD = 12.3$ . The undergraduate sample included 63 (19 males, 44 females) students who were on average 22.4 years old ( $SD = 5.0$ ). The nonstudent sample included 117 (56 males, 61 females) adults who were on average 34.0 years old ( $SD = 13.2$ ). In an exchange for their participation, students received a course credit and the nonstudent adults were entered in a draw for a \$100.

#### **Materials**

**Transgression stimulus.** The transgression was retrospective. Participants were asked to recall and write about a transgression that was committed against them by someone else. They

were instructed to recall a negative event that was due to something that the transgressor did or failed to do, and that had a moderate to serious impact on them.

**Manipulation of power.** Power was manipulated by utilizing the retrospective transgression above and by using a technique similar to the one that has been successfully used in the literature (Galinsky et al., 2003). In the powerful condition, participants were asked to recall and write about a transgression that was committed against them by someone whom they had power over. In the powerless condition, participants were asked to recall and write about a transgression that was committed against them by someone who had power over them.

**Power manipulation-check.** The manipulation of power was assessed using two items. An example item is “To what extent did you feel that you had power over the transgressor?” Items were measured using a scale from 1 (*Not at all*) to 7 (*Very much so*).

**Impact.** The extent to which the event had a negative impact on the participants was measured using the following item: “How much of an impact did this event have on you?” Item was measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Revenge.** The extent to which participants sought revenge against the transgressor following the transgression was assessed using two items: An example item was “To what extent did you get back at the transgressor?” Items were measured on a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Grudge.** The extent to which participants held a grudge against the transgressor following the transgression was assessed using four items: An example item was “To what extent did you hold a grudge against the transgressor?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Forgiveness.** The extent to which participants forgave the transgressor following the transgression was assessed using three items. An example item was “To what extent did you forgive the transgressor following the transgression?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

## **Procedure**

Participants were given a URL to complete the study on-line. Following their consent to participate, participants were instructed to complete the retrospective transgression, while also undergoing the power manipulation. Following that, participants completed the manipulation-check items and the measures for revenge, grudge, and forgiveness. Finally, participants were debriefed in writing.

## **Results**

### **Variables creation**

Based on inter-item correlations, composite variables were created by averaging the power manipulation-check items,  $M = 3.48$ ,  $SD = 1.77$ ,  $r = .82$ ,  $p < .01$ ; revenge items,  $M = 3.56$ ,  $SD = 1.63$ ,  $r = .34$ ,  $p < .01$ ; grudge items,  $M = 3.91$ ,  $SD = 1.63$ ,  $\alpha = .83$ ; and the forgiveness items,  $M = 3.17$ ,  $SD = 1.63$ ,  $\alpha = .78$ . Correlations between the variables are presented in Table 1.

### **Manipulation-check analysis**

A t-test confirmed that the power manipulation was successful,  $t(178) = 9.00$ ,  $p < .01$ ,  $d = 1.35$ . Those who were in the powerful condition felt significantly more powerful over the transgressor ( $M = 4.44$ ,  $SD = .16$ ) than those in the powerless condition ( $M = 2.46$ ,  $SD = .14$ ). In addition, as intended, the transgression was perceived as having a moderate to serious impact on participants,  $M = 5.13$ ,  $SD = 1.74$ .

Table 1  
*Pearson Correlation Matrix for Variables in Study 1*

Variable	1	2	3	4
1. Power manip check	---			
2. Revenge	.32*	---		
3. Grudge	-.12	.31*	---	
4. Forgiveness	.26*	.00	-.36*	---

Note. \* $p < .05$ .

## Main analysis

It was hypothesized that following a transgression, power would have a positive effect on revenge, a negative effect on grudge, and is unclear how it would be associated with forgiveness. In order to examine the above predictions, a series of t-tests was conducted. Consistent with our predictions, power had a significant positive effect on revenge,  $t(178) = 2.23, p = .03, d = .33$ . Victims who were transgressed against by someone whom they had power over (i.e., those who were in the powerful condition) were more likely to seek revenge against the transgressor following the transgression ( $M = 3.82, SD = 1.70$ ) than victims who were transgressed against by someone who had power over them (i.e., those who were in the powerless condition) ( $M = 3.29, SD = 1.55$ ). In addition, power had a significant negative effect on grudge,  $t(177) = -2.21, p = .03, d = .33$ . Victims who were transgressed against by someone who had power over them were more likely to hold a grudge against the transgressor following the transgression ( $M = 4.18, SD = 1.45$ ) than those who were transgressed against by someone whom they had power over ( $M = 3.65, SD = 1.76$ ). Finally, there was no significant effect of power on forgiveness,  $t(178) = 1.57, p = .12, d = .24$ .<sup>1</sup>

In sum, as predicted, results from Study 1 showed that power had a positive effect on revenge, a negative effect on grudge, and no effect on forgiveness. Those who were powerful were more likely to seek revenge against the transgressor following a transgression, and those who were powerless were more likely to hold a grudge. The next study investigated the reason why power differentially has an effect on revenge and grudge.

## Study 2

The aim of Study 2 was to replicate the results from Study 1 and to further examine the mediational role of approach-motivation on the power-revenge relation, and inhibition-

motivation on the power-grudge relation. In this study, the mechanism was experimentally manipulated (Spencer, Zanna, & Fong, 2005).

## **Method**

**Design.** The design of this Study was a two-way between groups experimental design: power 2 (low, high) x motivation 2 (approach, inhibition), and participants were randomly assigned to the different experimental conditions.

**Participants.** Participants were 154 undergraduates (43 males, 111 females) who were 19.9 years old on average ( $SD = 3.3$ ) and who participated in an exchange for a course credit.

## **Materials**

**Manipulation of power.** Power was manipulated by using a power prime (Galinsky et al., 2003) that has been reliably used in the literature. In the powerful condition, participants were asked to recall and write about a time when they felt powerful. In the powerless condition, participants were asked to recall and write about a time when they felt powerless.

**Power manipulation-check.** In order to assess the power manipulation, participants' essays were coded for how much power they reported having when describing the event (Galinsky et al., 2003). Their level of power was rated using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Manipulation of approach/inhibition motivation.** In order to manipulate approach and inhibition, participants completed a word-search task that either primed them with 9 approach-related words (e.g., forward) or 9 inhibition-related words (e.g., retreat) (K. Nash, personal communication, 2012). Word-search tasks have been largely used as successful techniques in priming motivation (Bargh & Chartrand, 2000; Bargh & Gollwitzer, 1994; Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001).

**Transgression stimulus.** Participants experienced a real transgression. Participants were told that the university was looking into a new system whereby a portion of students' final grade would depend on the students themselves grading other students for their assignments, and that this study was conducted to test this new system. They were told that they would be completing the study with another student and that they would both have to write an essay and submit it to each other to grade. In reality, the other participant was a confederate. After they were given a topic to write about, participants submitted their essay to their partner. After supposedly reading and grading their essay, their partner replied with the following feedback: "Hi, I read your essay. I found it hard to follow and I didn't really get the point. I thought there were lots of grammatical errors and I had to read most of the sentences twice." Following that, the system displayed a message that read "According to the university's grading scheme, your partner gave you an *E*." Grade "E" is part of a 9-point grading system used by the university and is characterized as "a marginal fail." Research shows that participants have felt insulted after such negative feedback (Bushman et al., 2001; Harmon-Jones & Sigelman, 2001; Harmon-Jones et al., 2004; McCullough, 2008).

**Revenge.** Revenge was assessed using the following item: "I would like to get even with my partner." This item was measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Grudge.** Grudge was assessed using the following item: "I am able to "turn off" any negative thoughts about this situation." This item was measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*). This item was reverse-coded where higher scores reflected more grudge.

**Forgiveness.** Forgiveness was assessed using the following item: “I am able to forgive my partner.” This item was measured using a scale from 1 (*Not at all*) to 7 (*Very much so*).

## **Procedure**

This Study was completed on-line. Following their consent to participate in the study, participants underwent the power manipulation through which they were asked to write an essay. After their completion of the task and during the time in which they were supposed to exchange the essays to grade, the system displayed a message informing participants that there was a glitch and that although the system was unable to send them their partner’s essay for them to grade, the system was able to send their essay to their partner to grade. While they were waiting for their essay to be graded, they underwent the approach/inhibition manipulation. Following that, participants received the negative feedback from their partner followed by their low grade. Then, after their partner had supposedly submitted their grade, they received a message indicating that whenever the system detects a low grade, participants are instructed to complete an “Experimental Feedback Form” which is designed to assess participants’ experience during the study. The post-transgression responses were included in this feedback form. At the end of the experiment, participants were debriefed in writing.

## **Results**

### **Descriptive Statistics**

Following are the mean averages for the power-manipulation check,  $M = 3.50$ ,  $SD = 1.81$ ; revenge,  $M = 1.95$ ,  $SD = 1.57$ ; grudge,  $M = 3.53$ ,  $SD = 2.29$ ; and forgiveness,  $M = 6.22$ ,  $SD = 1.35$ . Correlations between the variables are presented in Table 2.

### **Manipulation-check**

In order to check whether the power-manipulation was successful, an inter-rater

Table 2  
*Pearson Correlation Matrix for Variables in Study 2*

Variable	1	2	3	4
1. Power manip-check	---			
2. Revenge	.24*	---		
3. Grudge	-.02	.12	---	
4. Forgiveness	-.08	-.50*	-.03	---

Note. \* $p < .05$ .

reliability between the two coders was conducted. The level of agreement between the coders was relatively high,  $Kappa = .72, p < .01$ . Following that, a t-test analysis showed that the power manipulation was successful,  $t(148) = 23.25, p < .01, d = 3.82$ . As expected, participants who were in the high power condition felt more powerful ( $M = 5.42, SD = .93$ ) than those who were in the low power condition ( $M = 2.00, SD = .87$ ).

### **Main analysis**

It was hypothesized that approach-motivation would mediate the relation between power and revenge, and that inhibition-motivation would mediate the relation between power and grudge. Because the mechanism was experimentally manipulated (Spencer et al., 2005), a two-way ANOVA was conducted to test the above prediction.

Consistent with the above predictions, there was a significant interaction between power and approach/inhibition-motivation on revenge,  $F(1, 148) = 4.00, p = .04, \eta^2_p = .03$ . As Figure 1a shows, those victims who were in the powerful condition and experienced the approach prime were more vengeful ( $M = 2.59, SD = 2.08$ ) than those who were in the powerful condition and experienced the inhibition prime ( $M = 1.75, SD = 1.32$ ),  $t(64) = 1.97, p = .05, d = .49$ . In addition, those victims who were in the powerful condition and experienced the approach prime were more vengeful than those victims who were in the powerless condition and experienced the approach prime ( $M = 1.68, SD = 1.36$ ),  $t(76) = 2.32, p = .02, d = .53$ .

Also as predicted, there was a significant interaction between power and approach/inhibition-motivation on grudge,  $F(1, 146) = 3.76, p = .05, \eta^2_p = .03$ . As Figure 1b shows, those victims who were in the powerless condition and experienced the inhibition prime were more likely to hold a grudge ( $M = 4.16, SD = 2.30$ ) than those who were in the powerless

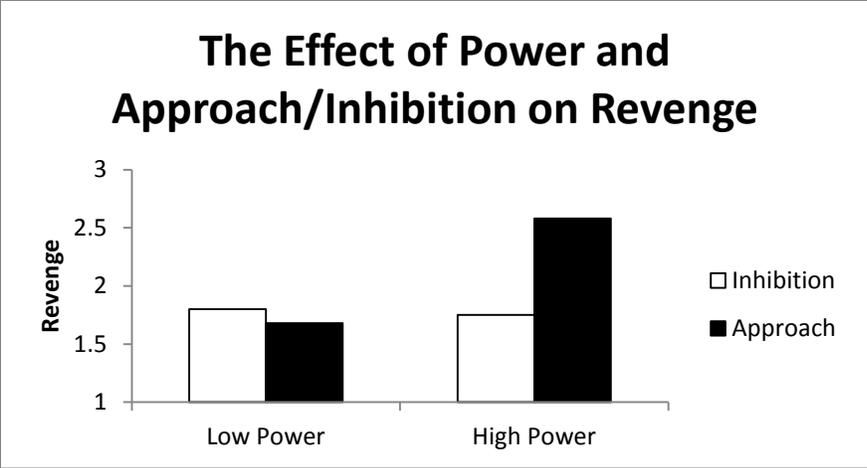


Figure 1a. The effects of power and approach/inhibition on revenge in Study 2.

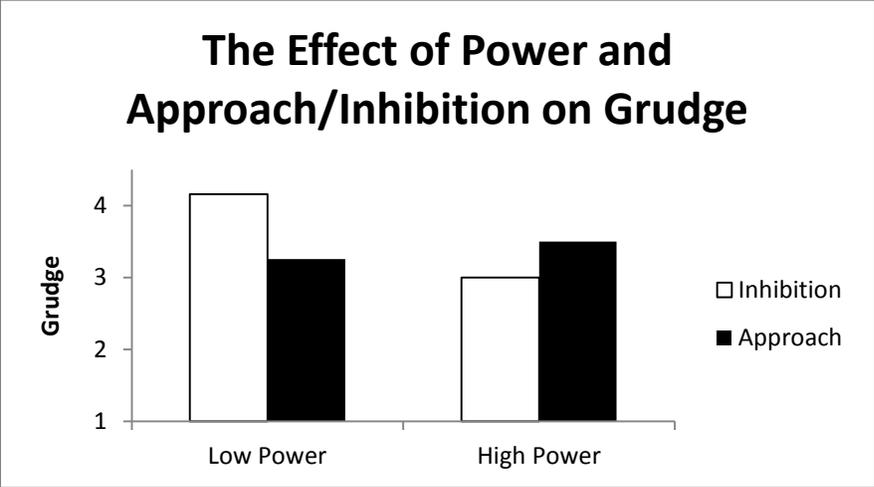


Figure 1b. The effects of power and approach/inhibition on grudge in Study 2.

condition and experienced the approach prime ( $M = 3.26$ ,  $SD = 2.25$ ),  $t(84) = 1.85$ ,  $p = .05$ ,  $d = .40$ . In addition, those victims who were in the powerless condition and experienced the inhibition prime were more likely to hold a grudge than those victims who were in the powerful condition and experienced the inhibition prime ( $M = 3.00$ ,  $SD = 2.27$ ),  $t(72) = 2.20$ ,  $p = .03$ ,  $d = .52$ .

Finally, there was no significant interaction between power and approach/inhibition-motivation on forgiveness,  $F(1, 149) = 1.68$ ,  $p = .20$ ,  $\eta^2_p = .01$ .

In sum, using an experimental approach to manipulate the mechanism, the results of this Study demonstrated that victims who were powerful and approach-motivated were most likely to be vengeful, whereas victims who were powerless and inhibition-motivated were most likely to hold a grudge.

Thus far, it has been shown that powerful victims are more likely to seek revenge because of approach-related processes, that powerless victims are more likely to hold a grudge because of inhibition-related processes, and that power had no effect on forgiveness. However, as mentioned previously, it would be less functional if powerful and powerless victims only engage in unforgiving responses following a transgression. In other words, even though it may be beneficial to seek revenge and to hold a grudge against the transgressor, it is also important to preserve relationships by forgoing retaliatory responses and adopting conciliatory ones instead. One moderator that could interrupt the influence of power on unforgiving responses and increase forgiveness is the extent to which the victim is assured that no future transgression is imminent. Thus, the next two studies examined ‘assurance of no future transgression’ as one boundary condition under which both powerful and powerless victims would become less antisocial (i.e.,

less vengeful and less likely to hold a grudge, respectively) and more prosocial (i.e., more forgiving).

### Study 3

The purpose of Study 3 was to investigate the moderating role of assurance of no future transgression on the relation between power and post-transgression responses.

#### Method

**Participants.** The participants were 134 undergraduates (102 Females, 32 Males). Participants were 20.5 years old on average ( $SD = 6.33$ ), and received a course credit for their participation.

**Design.** A two-way between groups experimental design was used: power 2 (low, high) x assurance 2 (no assurance, assurance). Participants were randomly assigned to the different experimental conditions.

#### Materials

**Manipulation of power.** Similar to Study 2, power was manipulated by instructing participants to write about a time where they felt powerful or powerless (Galinsky et al., 2003).

**Power-manipulation check:** The power manipulation was assessed using 7 items. An example item is “How powerful did you feel in the situation you described?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Transgression stimulus:** The transgression took place in the laboratory. Participants were instructed to work alongside a confederate on a first round of a cognitive task that required a high level of concentration (See Appendix A). They were told that if they performed well on the task, their name would be entered in a \$200 draw. They were also told that there would be another two rounds of similar tasks to follow. In order to rig the transgression, during the first

round of the task, the confederate used his cellphone to constantly send and receive text messages. The confederate's cell phone vibrated on the table with every text, hindering the participants' ability to concentrate and perform well on the task. A pilot test revealed that participants found the confederate's behaviour to be annoying.

**Manipulation of assurance of no future transgression.** In the no assurance condition, the confederate did not say anything and continued texting for the duration of the task. In the assurance condition, a few minutes after constantly texting, the confederate said: "Enough texting, I'm putting you on silent." He then put his cell phone on silent and stopped texting for the remainder of the task.

**Assurance of no future transgression manipulation-check.** The assurance manipulation was assessed using the following item: "To what extent do you think the negative experience with your partner will continue in Rounds 2 and 3? This item was measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*). This item was reverse-coded where higher scores reflected more assurance.

**Impact.** The extent to which the event had a negative impact on the participants was measured using the following item: "How negative was this experience with your partner?" Item was measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Revenge.** Revenge was assessed using a self-report as well as a behavioural measure. Self-report revenge was assessed using 3 items. An example item was "To what extent do you want to get back at your partner?" Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*). Behaviourally, revenge was assessed by weighing the amount of hot-sauce (in grams) that the participants diluted in the confederate's drink (Harmon-Jones & Sigelman,

2001; Lieberman, Solomon, Greenberg, & McGrogan, 1999; White-Ajmani & Krisanne, 2014)  
The more hot-sauce the participants used, the more they were considered to seek revenge.

**Grudge.** Grudge was assessed using a self-report as well as non-self-report measure. Self-report grudge was assessed using 3 items. An example item was “To what extent do you want to hold onto this negative experience with your partner?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*). Non-self-report grudge was assessed through rumination (McCullough, 2001). Participants were asked to describe in details the negative event that took place with their partner. The more time participants took to write about the event, the more words they wrote, and the more details they described, the more they were considered as holding a grudge

**Forgiveness.** Forgiveness was assessed using a self-report as well as behavioural measure. Self-report forgiveness was assessed using 3 items. An example item was “To what extent are you able to let go of this negative experience with your partner?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*). Behaviourally, forgiveness was assessed through prosocial behaviour toward the confederate (McCullough et al., 2000; Sharpley & Rodd, 1985). Participants were given the opportunity to assist the confederate in collecting the monetary coins that he dropped on the ground. Whether the participants helped, the less time it took them to help, and the more coins they picked up, the more they were considered as forgiving.

## **Procedure**

Following their arrival to the laboratory, participants and the confederate were welcomed to the study. After reading and signing the informed consent, participants were told that this study was comprised of three separate studies. This was done in order to limit any connection

between the different parts of the study. They were told that the first study investigated recalling past life experiences, the second investigated solving cognitive tasks with others, and the third investigated taste sensitivity and detection. The participants then completed “Study 1” whereby the power manipulation as well as the power manipulation-check took place. Following that, participants completed “Study 2.” The experimenter explained that the purpose of this study was to investigate the effects of discussing strategies for solving cognitive tasks on improving one’s performance on similar but more difficult tasks. They were told that they would be completing three rounds of cognitive tasks: easy, intermediate, and difficult, and that after each round, they would be discussing the strategies they each used with their partner. They were also told that each round would take four minutes followed by a questionnaire assessing their experience. The participant and the confederate were then seated adjacent to one another to solve the first task whereby the transgression as well as the assurance manipulation took place. After their completion of the task, the experimenter falsely informed the participants that they did poorly on the task and that they lost their chance of entering the draw. The experimenter, however, informed the confederate that he performed well and as a result qualified to enter the draw. Next, the participants completed the questionnaire assessing the assurance manipulation and the self-report measures of revenge, grudge, and forgiveness, as well as the non-self-report measure of grudge. Following that, the experimenter announced that she had to go to the adjacent room to print the tasks for rounds 2 and 3. As she was leaving, the confederate inquired about the location of a vending machine. As he got up, he dropped his money on the ground, allowing the behavioural forgiveness measure to take place. The experimenter returned saying that while the rounds are being printed and in order to save time, they had to complete “Study 3.” The experimenter explained that this study investigates how individuals’ preference of the four major

flavours of foods (sweet, salty, spicy, and sour) influences their sensitivity to, and detection of, these flavours upon tasting them. Next, the experimenter asked the participants and the confederate to complete a questionnaire indicating the extent to which they preferred each flavour. She then exchanged their questionnaires in order to make salient the confederate's dislike of spicy foods. Following that, she asked them to blindly pick a flavour and prepare a drink accordingly for their partner. The participants were rigged to pick the spicy flavour, after which the behavioural revenge measure took place. Following that, the experimenter explained that she was running out of time and that she had to end the study. The experimenter then used funnel debriefing to assess the participants' experience during the study and she then debriefed them in writing.

## **Results**

### **Variables creation**

As Table 3 shows, based on inter-item correlations, composite variables were created by averaging the items for the power manipulation-check, assurance manipulation-check, self-report revenge, self-report grudge, and self-report forgiveness. Table 3 also includes descriptive statistics for each of the behavioural/non-self-report measures as well as the correlation between all variables.<sup>2</sup>

### **Manipulation-check analysis**

A t-test analysis confirmed that the power manipulation was successful,  $t(98) = 6.50, p < .01, d = 1.32$ . Those who were in the powerful condition felt significantly more powerful ( $M = 4.80, SD = .94$ ) than those in the powerless condition ( $M = 3.41, SD = 1.16$ ). A t-test analysis also confirmed that the assurance manipulation was successful,  $t(97) = 2.10, p = .04, d = .43$

Table 3  
*Descriptive Statistics and Pearson Correlations for Variables in Study 3*

Variable	<i>M</i>	<i>SD</i>	<i>α</i>	1	2	3	4	5	6	7	8	9	10	11	12
1. Power manip- check	4.09	1.26	.77	1											
2. Assurance manip- check	4.42	1.77		-.01	1										
3. Self-report revenge	2.02	1.38	.87	.09	-.18	1									
4. Self-report grudge	2.52	1.38	.71	-.04	-.53*	.43*	1								
5. Self-report forgiveness	3.83	1.23	.63	.03	.38*	-.21*	-.54*	1							
6. Non-self-report grudge - time	2.37	1.45		.06	-.19	.02	.10	.07	1						
7. Non-self-report grudge – number of words	74.61	53.93		.06	-.20*	.07	.30*	-.13	.51*	1					
8. Non-self-report grudge – details	5.11	1.77		-.02	-.40*	.07	.33*	-.19	.53*	.58*	1				
9. Beh. forgiveness – help or not	.60	.49		.01	.06	.01	-.16	.16	.06	.02	.14	1			
10. Beh. forgiveness – latency	16.94	10.92		-.04	-.01	.04	.12	-.21*	-.01	-.03	-.14	-.80*	1		
11. Beh. forgiveness – number of coins	8.73	7.26		.02	.09	-.09	-.13	.17	.01	.01	.01	.84*	-.71*	1	
12. Beh. revenge	2.93	4.09		.19	-.11	.31	.05	-.13	.09	.18	.17	-.15	.14	-.26*	1

Note. \* $p < .05$ .

Those who were in the assurance condition felt significantly more assured that the transgressor will not hurt them again ( $M = 4.77$ ,  $SD = 1.66$ ) than those in the no assurance condition ( $M = 4.04$ ,  $SD = 1.83$ ). In addition, as intended, the transgression was perceived as having a moderate impact on participants,  $M = 4.15$ ,  $SD = 1.83$ .

### **Main analysis**

It was hypothesized that victims would be most likely to seek revenge in the high power no assurance condition, most likely hold a grudge in the low power no assurance condition, and most likely to forgive in the low as well as high power assurance conditions. It was also hypothesized that those in the low power assurance condition would be less likely to hold a grudge than those in the low power no assurance condition, that those in the high power assurance condition would be less vengeful than those in the high power no assurance condition, and that those in the low as well as high power assurance condition would be more forgiving than those in the low and high power no assurance conditions, respectively.

In order to test these predictions, a 2 power (low, high) x 2 assurance (no assurance, assurance) x 3 post-transgression responses (self-reported revenge, grudge, forgiveness) MANOVA was conducted. Both power and assurance were between groups independent variables and post-transgression responses was a within participant variable. Results showed that although the 3-way omnibus interaction was not significant, Pillai's Trace = .03,  $F(3, 93) = 1.10$ ,  $p = .37$ ,  $\eta^2_p = .03$ , the pattern of the results was largely in the predicted direction. Thus, exploratory multiple comparisons were conducted to test the above specific predictions.

First, as Figure 2 shows, the predicted pattern was supported for those who were in the low power assurance condition. Those who were in this condition were significantly more likely

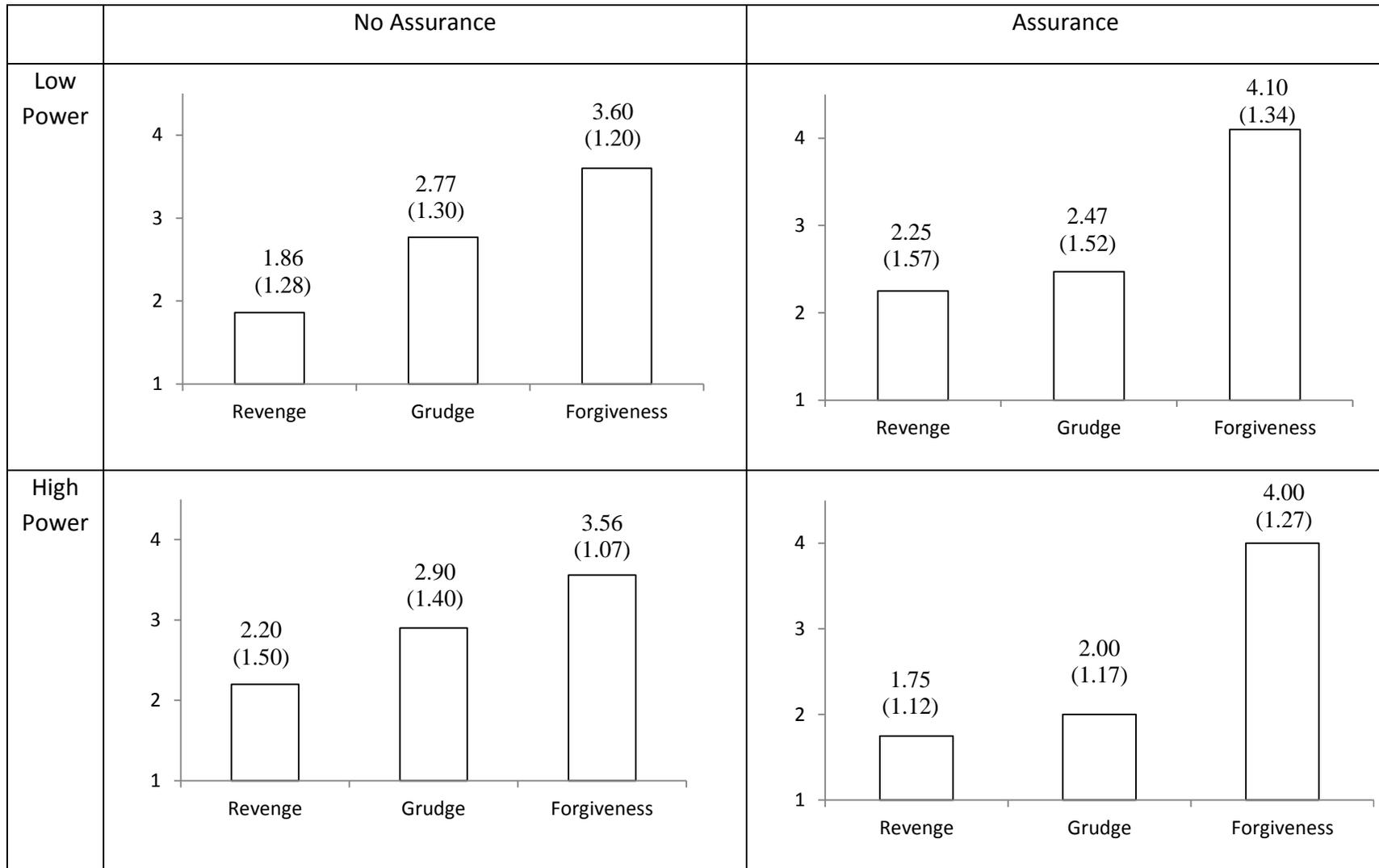


Figure 2. The effects of power and assurance of no future transgression on self-report post-transgression responses in Study 3

to forgive than to hold a grudge,  $t(26) = 3.22, p < .01, d = .62$ , and more likely to forgive than to seek revenge,  $t(26) = 4.14, p < .01, d = .80$ . Similarly, the predicted pattern was supported for those who were in the high power assurance condition. Those who were in this condition were significantly more likely to forgive than to hold a grudge,  $t(24) = 4.92, p < .01, d = .97$ , and more likely to forgive than to seek revenge,  $t(24) = 6.71, p < .01, d = 1.34$ . In addition, although as predicted: 1) those in the low power assurance condition were less likely to hold a grudge than those in the low power no assurance condition; 2) those in the high power assurance condition were less vengeful than those in the high power no assurance condition; and 3) those in the low as well as high power assurance conditions were more forgiving than those in the low as well as high power no assurance conditions, respectively, these differences were not significant,  $t(48) = .74, p = .47, d = .21$ ;  $t(47) = 1.19, p = .24, d = .34$ ;  $t(48) = 1.38, p = .18, d = .39$ ;  $t(47) = 1.32, p = .19, d = .38$ , respectively.

Regarding the behavioural/non-self-report measures, because each dependent variable utilized a unique measurement scale, each measure (the hot sauce, the three grudge measures, and the three forgiveness measures) was standardized. Following that, the three measures of non-self-report grudge were aggregated. Because each of the measures of forgiveness can be interpreted differently, however, these measures were analyzed separately.

A 2 power (low, high) x 2 assurance (no assurance, assurance) x 3 post-transgression responses (behavioural revenge, aggregated non-self-report grudge, behavioural forgiveness - number of coins picked up) MANOVA was conducted. Both power and assurance were between groups independent variables and post-transgression responses was a within participant variable. Similar to the self-report measures, although the 3-way omnibus interaction was not significant, Pillai's Trace = .02,  $F(3, 93) = .48, p = .70, \eta^2_p = .02$ , the pattern of the results was largely in the

predicted direction. Thus, exploratory multiple comparisons were conducted to test the above specific predictions.

As Figure 3 shows<sup>3</sup>, the predicted pattern was supported for those who were in the low power assurance condition. Those who were in this condition were more likely to forgive than to hold a grudge, and more likely to forgive than to seek revenge, however, these differences were not significant,  $t(27) = .40, p = .70, d = .07$ ;  $t(27) = .69, p = .50, d = .13$ , respectively. Similarly, although as predicted, those who were in the high power assurance condition were more likely to forgive than to hold a grudge, and more likely to forgive than to seek revenge, these differences were not significant,  $t(24) = .69, p = .50, d = .14$ ;  $t(24) = .64, p = .53, d = .12$ , respectively. In addition, although as predicted, those in the high power assurance condition were less vengeful than those in the high power no assurance condition, and those in the low as well as high power assurance conditions were more forgiving than those in the low as well as high power no assurance conditions, respectively, these differences were not significant;  $t(46) = .23, p = .82, d = .07$ ;  $t(49) = .24, p = .81, d = .07$ ;  $t(47) = .76, p = .45, d = .22$ , respectively.

In sum, although the results of Study 3 were not all statistically significant, this study showed preliminary evidence that assurance of no future transgressions moderates the relation between power and post-transgression responses. Under conditions of assurance, powerful and powerless victims were most likely to forgive the transgressor following the transgression. The next study was set out to examine the reason why ‘assurance of no future transgressions’ moderates the relation between power and post-transgression responses.

#### **Study 4**

The purpose of Study 4 was to examine the mediational role of victims’ ‘lack of a need to

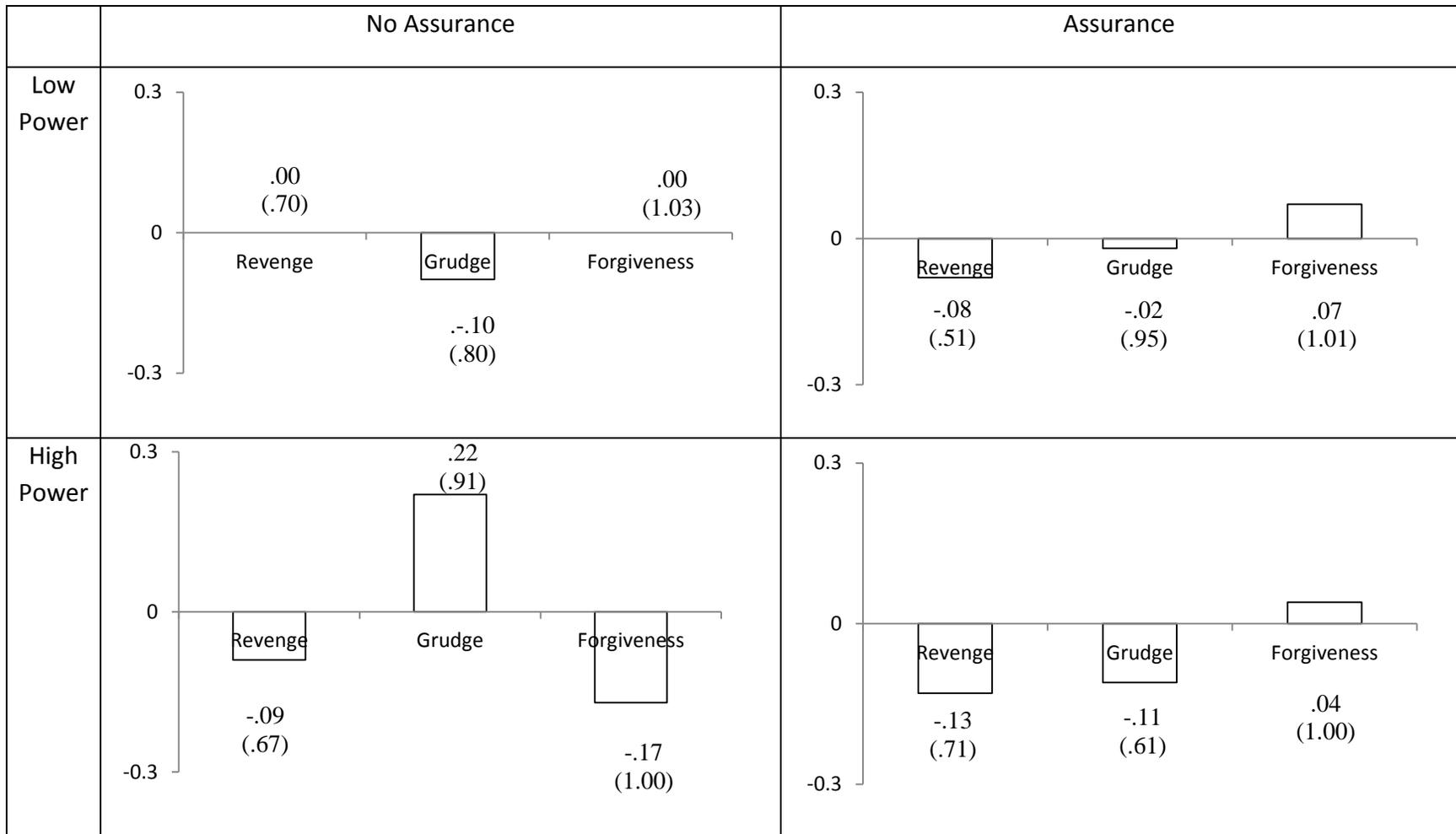


Figure 3. The effects of power and assurance of no future transgression on behavioural/non-self-report post-transgression responses in Study 3

teach the transgressor a lesson' and 'safety' on the moderation of power and assurance of no future transgression on post-transgression responses.

## **Method**

**Participants.** The participants were 260 undergraduates (183 Females, 70 Males, 7 did not report gender). Participants were 20.4 years old on average ( $SD = 3.33$ ) and received a course credit for their participation.

**Design.** A two-way between groups experimental design was used: power 2 (low, high) x assurance 2 (no assurance, assurance). Participants were randomly assigned to the different experimental conditions.

## **Materials**

**Manipulation of power.** In order to manipulate power, participants were asked to imagine that they were taking part in a study in the Department of Psychology and that in order to encourage participation in research, the Department was holding a draw for a free course worth \$650. They were further asked to imagine that they were completing this study with another participant named Mike, that there were 10 ballots to be allocated between both of them to enter the draw, and that they were to be randomly assigned to the options in which the ballots can be allocated. In the powerful condition, participants imagined that they could assign any number of ballots from 0 to 10 to Mike, but no ballots to themselves, influencing Mike's chances of winning the draw but not their own. In the powerless condition, participants imagined that they could not assign any ballots to themselves or to Mike, being unable to influence Mike's chances of winning the draw and neither their own. They were told that the assignment of the ballots would take place at the end of the study.

**Power-manipulation check.** The power manipulation was assessed using 4 items. An example item is “To what extent would you feel that you have power to influence Mike’s chances of winning the draw?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Transgression stimulus.** The transgression was a scenario in which participants imagined themselves experiencing the same offense used in Study 3.

**Manipulation of assurance of no future transgression.** Participants imagined the same manipulation of assurance that was used in Study 3.

**Assurance of no future transgression manipulation-check.** The assurance manipulation was assessed using 5 items. An example item is “To what extent would you feel assured that Mike would not continue to text and distract you again in the following rounds?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Impact.** The extent to which the event had a negative impact on the participants was measured using the following item: “How negatively would Mike’s texting and distraction impact you in this situation?” The item was measured using a scale from 1 (*Not at all*) to 7 (*Very much so*).

**Lack of a need to teach a lesson.** Lack of a need to teach the transgressor a lesson was assessed using 5 items. An example item was “To what extent would you feel that you need to teach Mike a lesson to not text and distract you again in the following rounds?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*). Items were reverse-coded where higher scores reflected the lack of a need to teach the transgressor a lesson.

**Safety.** Safety was assessed using 8 items. An example item is “I would feel secure that Mike would not text and distract me again in the following rounds.” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Revenge.** Revenge was assessed using the five-item Transgression-Related Interpersonal Motivations revenge subscale (TRIM; McCullough et al., 1998). An example item was “To what extent would you want to get even with Mike?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Grudge.** Grudge was assessed using 10 items. An example item was “To what extent would you hold a grudge against Mike?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

**Forgiveness.** Forgiveness was assessed using 8 items. An example item was “To what extent would you forgive Mike?” Items were measured using a 7-point scale from 1 (*Not at all*) to 7 (*Very much so*).

## **Procedure**

Participants were given a URL to complete the study on-line. After consenting to participate in the study, participants read a scenario that combined the power manipulation, transgression, and assurance manipulation. Following that, participants completed the manipulation-checks, mechanisms, and dependent variables measures. Finally, at the end of the study, participants were debriefed in writing.

## **Results**

### **Variables creation**

Based on inter-item correlations, composite variables were created by averaging the items for the power manipulation-check,  $M = 3.65$ ,  $SD = 1.79$ ,  $\alpha = .93$ ; assurance manipulation-check,

$M = 3.30$ ,  $SD = 1.17$ ,  $\alpha = .84$ ; lack of a need to teach a lesson,  $M = 4.57$ ,  $SD = 1.40$ ,  $\alpha = .89$ ; safety,  $M = 3.82$ ,  $SD = 1.08$ ,  $\alpha = .83$ ; revenge,  $M = 2.46$ ,  $SD = 1.30$ ,  $\alpha = .89$ ; grudge,  $M = 2.94$ ,  $SD = 1.51$ ,  $\alpha = .87$ ; and forgiveness,  $M = 3.60$ ,  $SD = .88$ ,  $\alpha = .76$ . Table 4 shows the correlations between the variables.

### **Manipulation-check analysis**

A t-test analysis confirmed that the power manipulation was successful  $t(256) = 10.85$ ,  $p < .01$ ,  $d = 1.36$ . Those who were in the powerful condition felt significantly more powerful ( $M = 4.64$ ,  $SD = 1.53$ ) than those in the powerless condition ( $M = 2.64$ ,  $SD = 1.44$ ). A t-test also confirmed that the assurance manipulation was successful  $t(255) = 5.69$ ,  $p < .01$ ,  $d = .71$ . Those who were in the assurance condition felt significantly more assured that the transgressor would not hurt them again ( $M = 3.70$ ,  $SD = 1.17$ ) than those in the no assurance condition ( $M = 2.92$ ,  $SD = 1.04$ ). Finally, as intended, participants perceived the transgression to have a moderate impact on them,  $M = 4.77$ ,  $SD = 1.58$ .

### **Main analysis**

Similar to Study 3, it was hypothesized that victims would be most likely to seek revenge in the high power no assurance condition, most likely to hold a grudge in the low power no assurance condition, and most likely to forgive in the low and high power assurance conditions. It was also hypothesized that those in the low power assurance condition would be less likely to hold a grudge than those in the low power no assurance condition, those in the high power assurance condition would be less vengeful than those in the high power no assurance condition, and that those in the low and high power assurance conditions would be more forgiving than those in the low and high power no assurance conditions, respectively.

In order to test these predictions, a 2 power (low, high) x 2 assurance (no assurance,

Table 4  
*Pearson Correlation Matrix for Variables in Study 4*

Variable	1	2	3	4	5	6	7
1. Power manip-check	1						
2. Assurance manip-check	-.03	1					
3. Lack of a need to teach a lesson	-.16*	.18*	1				
4. Safety	-.15*	.47*	.50*	1			
5. Revenge	.11	-.07	-.62*	-.38*	1		
6. Grudge	.08	-.16	-.54*	-.42*	.74*	1	
7. Forgiveness	.04	.38*	.25*	.26*	-.28*	-.40*	1

Note. \* $p < .05$ .

assurance) x 3 post-transgression responses (revenge, grudge, forgiveness) MANOVA was conducted. Both power and assurance were between groups independent variables and post-transgression responses was a within participant variable. Similar to Study 3, although the omnibus 3-way interaction was not significant, Pillai's Trace = .01,  $F(3, 247) = .67$ ,  $p = .57$ ,  $\eta^2_p = .01$ , the pattern of the results was in the predicted direction. Thus, exploratory multiple comparisons were conducted to test the above specific predictions.

As Figure 4 shows, the predicted pattern was supported for those who were in the low power assurance condition. Those who were in this condition, were significantly more likely to forgive than to hold a grudge,  $t(57) = 5.73$ ,  $p < .01$ ,  $d = .75$ , and more likely to forgive than to seek revenge,  $t(57) = 6.36$ ,  $p < .01$ ,  $d = .84$ . Similarly, the predicted pattern was supported for those who were in the high power assurance condition. Those who were in this condition were significantly more likely to forgive than to hold a grudge,  $t(64) = 3.51$ ,  $p < .01$ ,  $d = .44$ , and more likely to forgive than to seek revenge,  $t(64) = 5.67$ ,  $p < .01$ ,  $d = .71$ . In addition, those in the low power assurance condition were significantly less likely to hold a grudge than those in the low power no assurance condition,  $t(122) = 2.12$ ,  $p = .03$ ,  $d = .38$ , and also significantly more likely to forgive,  $t(122) = 2.17$ ,  $p = .03$ ,  $d = .39$ . Finally, although as predicted, those in the high power assurance condition were less vengeful than those in the high power no assurance condition, and also more forgiving, these differences were not significant,  $t(127) = .59$ ,  $p = .55$ ,  $d = .10$ ;  $t(127) = .63$ ,  $p = .53$ ,  $d = .11$ , respectively.

### **Mediational Analysis**

To test the mediational role of victims' 'lack of a need to teach the transgressor a lesson' and 'safety' on the moderation of assurance of no future transgression and power on post-

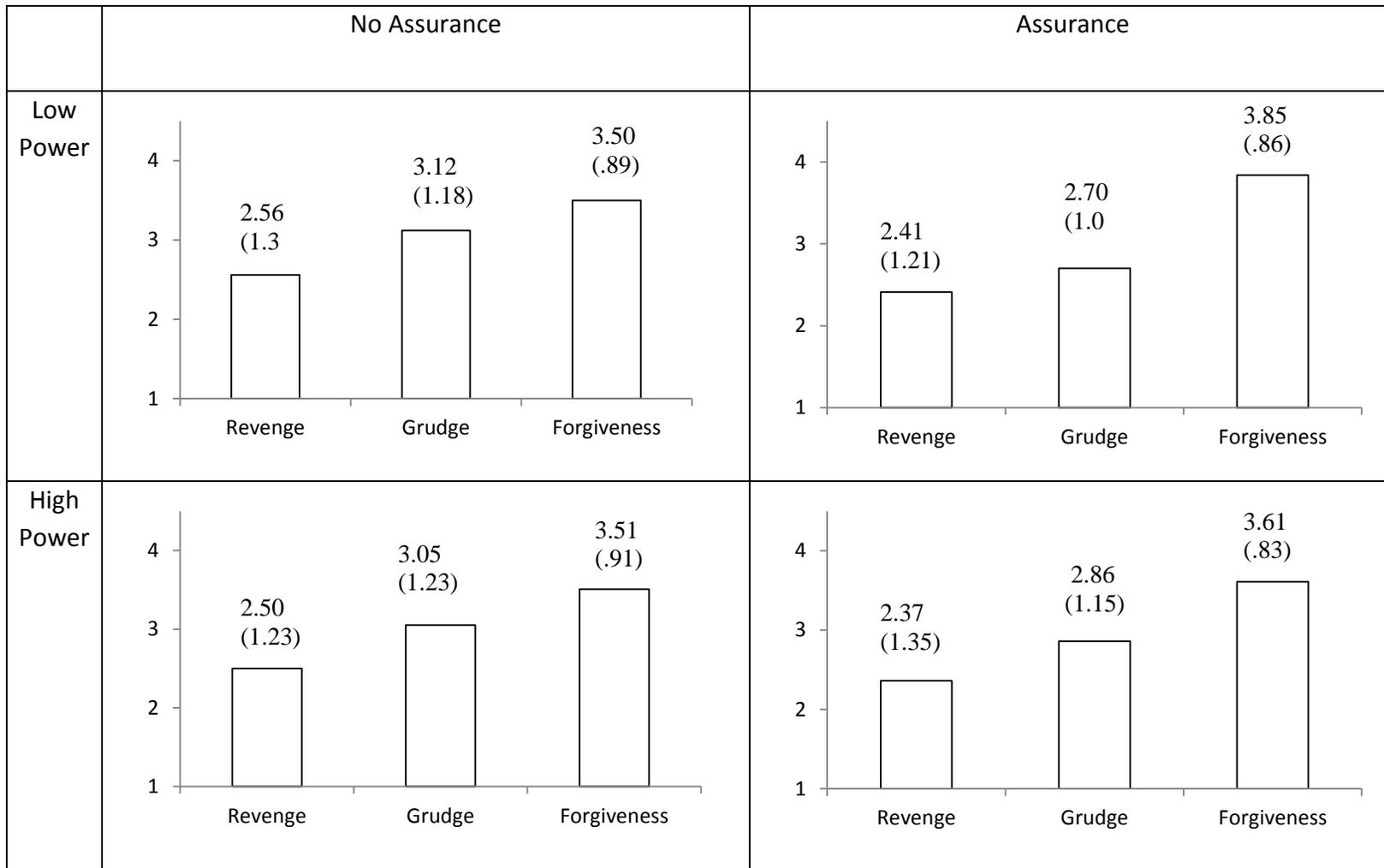


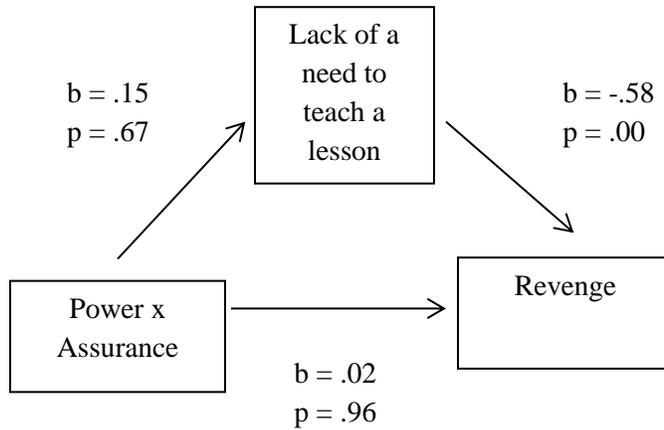
Figure 4. The effects of power and assurance of no future transgression on post-transgression responses in Study 4

transgression responses, mediated moderation and moderated mediation analyses were conducted (Muller, Judd, & Yzerbyt, 2005).

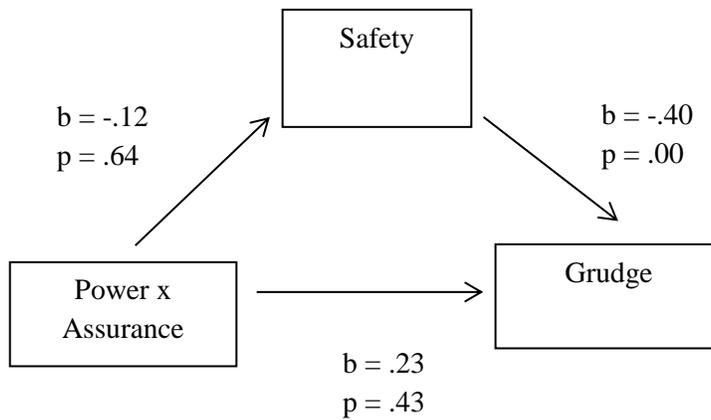
In order to test the hypothesis that under conditions of assurance, the reason why powerful victims would be less vengeful is because there would be no need to teach the transgressor a lesson, and the reason why powerless victims would be less likely to hold a grudge is because they would feel safe, a mediated moderation analysis was conducted. According to Muller and his colleagues (2005), in order for a mediated moderation to occur, three conditions are required: 1) a significant interaction between power and assurance on the dependent variable; 2) a significant interaction between power and assurance on the mechanism; and 3) a significant effect of the mechanism on the dependent variable, while controlling for the interaction between power and assurance.

Regarding the mechanism of victims' 'lack of a need to teach the transgressor a lesson,' as Figure 5a shows, although the effect of 'lack of a need to teach a lesson' on revenge (while controlling for the interaction) was in the predicted direction and significant, the other two required paths were not significant. Thus, there was no evidence of the mediational role of victims' 'lack of a need to teach the transgressor a lesson' on revenge. Similarly, regarding the mechanism of victims' safety, as Figure 5b shows, although the effect of safety on grudge (while controlling for the interaction) is in the predicted direction and significant, the other two required paths were not significant. Thus, there was no evidence for the mediational role of 'safety' on grudge.

In order to test the hypothesis that under conditions of assurance, the reason why powerful victims would be more likely to forgive is because there would be no need to teach the transgressor a lesson, and the reason why powerless victims would be more likely to forgive is



*Figure 5a.* The mediational role of victims' 'lack of a need to teach the transgressor a lesson' on the effect of power and assurance of no future transgression on revenge in Study 4



*Figure 5b.* The mediational role of victims' 'safety' on the effect of power and assurance of no future transgression on grudge in Study 4

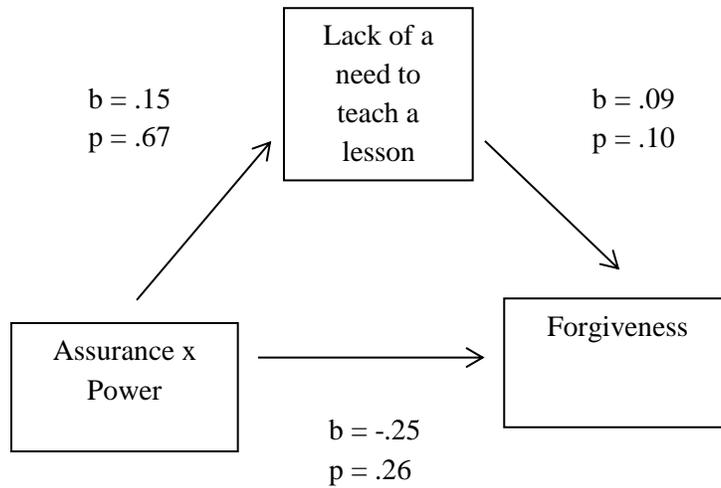
because they would feel safe, a moderated mediation analysis was conducted. According to Muller and his colleagues (2005), in order for a moderated mediation to occur, three conditions are required: 1) a significant main effect of assurance on the dependent variable; 2) an interaction between power and assurance on the mechanism; and 3) a significant effect of the mechanism on the dependent variable, while controlling for the interaction between power and assurance.

Regarding the victims' 'lack of a need to teach the transgressor a lesson,' although the main effect of assurance of no future transgression on forgiveness was in the predicted direction and significant ( $b = .34, p = .03$ ), as Figure 6a shows, the other two required paths were nonsignificant. Thus, there was no evidence for the mediational role of victims' 'lack of a need to teach the transgressor a lesson' on forgiveness. Similarly, regarding victims' safety, although the main effect of assurance on forgiveness was as predicted and significant ( $b = .34, p = .03$ ), as Figure 6b shows, the other two paths were nonsignificant. Thus, there was no evidence for the mediational role of 'safety' on forgiveness.

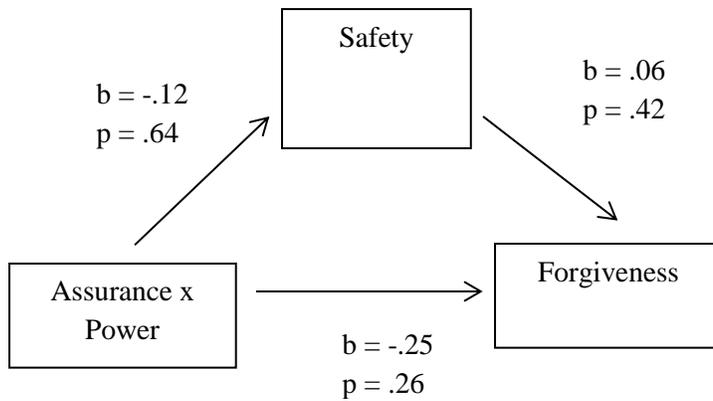
In sum, Study 4 replicated results from Study 3 by showing a preliminary evidence for the moderating role of assurance of no future transgression on the relation between power and post-transgression responses. However, although the direction of the relations between the variables for the mediational analysis was largely in the hypothesized direction, there was no evidence for the mediational role of victims' 'lack of a need to teach the transgressor a lesson' or 'safety.'

## **Discussion**

Despite the harmonious nature of social relationships, individuals commit transgressions against one another. Following such transgressions, victims can either respond in an antisocial



*Figure 6a.* The mediational role of victims’ ‘lack of a need to teach the transgressor a lesson’ on the effect of assurance of no future transgression on forgiveness in Study 5



*Figure 6b.* The mediational role of victims’ ‘safety’ on the effect of assurance of no future transgression on forgiveness in Study 5

manner such as seeking revenge, or holding a grudge, against the transgressor, or in a prosocial manner such as forgiving the transgressor. In this Dissertation, I aimed to investigate the impact of one interpersonal factor, namely, power, on victims' responses following an offense. The primary aim of this Dissertation was to investigate the effects of power on victims' decision to seek revenge against, or hold a grudge against, or forgive the transgressor following a transgression, as well as to examine two potential mechanisms underlying these effects, namely, approach and inhibition motivation. The secondary aim of this Dissertation was to investigate the effects of assurance of no future transgression as one potential moderator of the relation between power and post-transgression responses, and two associated mechanisms explaining this moderation, namely, victims' 'lack of a need to teach the transgressor a lesson' and 'safety.'

According to the approach/inhibition theory of power (Keltner et al., 2003), elevated power is associated with the behavioural approach system (BAS), which is associated with approach-related processes such as forward movements, aggression, obtaining rewards, and accomplishing goals (Gray, 1981, 1982). In comparison, reduced power is associated with the behavioural inhibition system (BIS), which is associated with inhibition-related processes such as inhibited movements, avoiding punishment, and vigilance (Gray, 1981, 1982).

Because powerful individuals are oriented to take action and are focused on accomplishing goals (Keltner et al., 2003), and because revenge is considered an approach- and goal- oriented behaviour (Bushman et al., 2001; Harmon-Jones & Sigelman, 2001; Harmon-Jones et al., 2004; McCullough, 2008; Schumann & Ross, 2010), powerful victims were predicted to seek revenge against the transgressor following a transgression. Similarly, because powerless individuals are oriented toward inaction and vigilance against potential threats (Keltner et al., 2003), and because grudge-holding is considered an inhibited and vigilant state

(Baumeister et al., 1998; Bunker & Ball, 2009; Rapske et al., 2010), powerless victims were predicted to hold a grudge against the transgressor following a transgression. In addition, approach-motivation was predicted to mediate the relation between power and revenge, and inhibition-motivation was predicted to mediate the relation between power and grudge. Regarding forgiveness, because a direct relation between power and prosocial behaviour was unclear, no predictions were made regarding the direct relation between power and forgiveness. Furthermore, assurance of no future transgression was predicted to moderate the relation between power and post-transgression responses. Specifically, under conditions of assurance, powerful and powerless victims were predicted to be less vengeful and less likely to hold a grudge, respectively, and more likely to forgive. Finally, the reason why under conditions of assurance powerful victims were predicted to be less vengeful and more forgiving is because there would be no need to teach the transgressor a lesson, and the reason why under conditions of assurance powerless individuals were predicted to be less likely to hold a grudge and more forgiving is because they would feel safe.

Study 1 examined and supported the first hypothesis. Power was shown to have a positive effect on revenge and a negative effect on grudge. The results of this study also showed that there was no effect of power on forgiveness. Study 2 replicated these findings and further supported the second hypothesis. Victims who were powerful and approach-motivated were most likely to seek revenge, and victims who were powerless and inhibition-motivated were most likely to hold a grudge. Study 3 examined and showed preliminary evidence for the third hypothesis. Specifically, although the omnibus analysis was not significant, the hypothesized means were largely in the predicted direction. Under conditions of assurance, powerless victims were less likely to hold a grudge and most likely to forgive, and powerful victims were less

likely to seek revenge and most likely to forgive. Finally, Study 4 replicated these findings and further examined the fourth hypothesis. Results from this study, however, failed to demonstrate evidence of the mediational role of victims' 'lack need to teach the transgressor a lesson' and 'safety.'

This research supports and extends previous findings on the relation between power and revenge, and power and grudge. This research replicates previous evidence demonstrating a positive relation between power and revenge (Aquino & Douglas, 2003; Aquino et al., 2001; Aquino et al., 2006; Kim et al., 1998) and preliminary evidence that powerlessness is associated with holding a grudge (Bunker & Ball, 2009; Grégoire, Tripp, & Legoux, 2009). In addition, unlike previous research where powerless individuals were mostly examined in the shadows of the powerful, demonstrating opposite responses to them (Overbeck, 2010), this research uniquely investigates the powerless. Specifically, this research advances previous research by demonstrating that powerless individuals do not merely exhibit the opposite response of their counterparts the powerful by seeking less revenge (Aquino & Douglas, 2003; Aquino et al., 2001; Aquino et al., 2006), but that powerless individuals exhibit unique social cognitive processes, in this case, holding a grudge against the transgressor following a transgression. Finally, this research uniquely extends previous findings on the relation between power and revenge, and power and grudge, by demonstrating the reasons why power differentially affects each post-transgression response. Rooted in the approach/inhibition theory of power (Keltner et al., 2003), results from this research demonstrates that approach-motivation is one mechanism through which power has a positive effect on revenge, and inhibition-motivation is one mechanism through which power has a negative effect on grudge.

This research also supports and extends previous research on the relation between power and forgiveness. This research supports previous findings of a lack of a direct relation between power and forgiveness (Aquino et al., 2001; Aquino et al., 2006), indicating that following a transgression, and in absence of any moderating variables, power is unlikely to predict victims' decision to forgive the transgressor. This research also supports previous findings by showing that power is likely to be associated with antisocial responses (Galinsky et al., 2003; Keltner et al., 2003; Kipnis, 1972; Lammers et al., 2010; Magee et al., 2007; Overbeck & Park, 2006), however, under certain conditions, power becomes associated with prosocial responses (Aquino et al., 2003; Chen et al, 2001; Côté et al., 2011; Galinsky et al., 2003; Galinsky, & Zhong, 2011; Karremans & Smith, 2010; Keltner et al., 2013). This research, for example, showed that power is associated with antisocial responses (i.e., revenge and grudge), however, under conditions of assurance of no future transgression, power becomes associated with prosocial responses (i.e., forgiveness). Finally, this research advances the relation between power and prosocial behaviour. Specifically, in addition to the boundary conditions that have been found to moderate the relation between power and prosocial behaviour (Aquino et al., 2003; Chen et al, 2001; Côté et al., 2011; Hirsh et al., 2011; Galinsky et al., 2003; Karremans & Smith, 2010), this research shows a preliminary evidence for one additional boundary condition, namely, assurance of no future transgression.

This research also advances the forgiveness literature by shedding light on one pervasive yet under-researched post-transgression response, namely, holding a grudge. There has been little research investigating the social motive of holding a grudge (Exline & Baumeister, 2000; Rapske et al., 2010) and findings from this research not only aid in our understanding of this construct, but also in identifying the factors that influence it and the mechanisms that underlie it. This

research, for example, demonstrates that a lack of power is one factor that influences a victim's decision to hold a grudge against a transgressor following a transgression, and that inhibition-motivation is one mechanism through which lack of power leads to holding a grudge.

Furthermore, this research supports the approach/inhibition theory of power (Keltner et al., 2003). Results from this research support the theory by showing that powerful individuals are likely to act in an approach manner (e.g., seek revenge), and that powerless victims are likely to respond in an inhibited manner (e.g., hold a grudge). In addition, this research showed support for the mediational role of approach and inhibition. Powerful victims who were also approach-motivated were likely to act in an approach manner following a transgression, and powerless victims who were inhibition-motivated were likely to act in an inhibited manner following a transgression. In addition, this research shows unique evidence supporting this theory by investigating the effects of power on a dependent variable while simultaneously accounting for the mechanisms. Specifically, research that has stemmed from this theory has focused either on investigating the effects of power on an action-oriented dependent variable (e.g., accomplishing goals), or the effects of power on approach-motivation, without examining the power-approach-action relation simultaneously (Magee & Smith, 2013). This research, however, has investigated and showed that high power is positively associated with an action-oriented dependent variable (i.e., revenge), while examining and demonstrating approach-motivation as the mechanism underlying this effect. What's more is that this research has also showed unique support for this theory by investigating the effects of low power on one inhibited-oriented dependent variable (i.e., holding a grudge) while also accounting for inhibition as the mechanism. In other words, this research has uniquely supported this theory and showed evidence for the mediational role of approach on power and one action-oriented dependent variable, while simultaneously showing

evidence for the mediational role of inhibition on low power and one inhibition-oriented dependent variable, an investigation that previous research did not accomplish (Magee & Smith, 2013). Finally, this research extends the generalizability of this theory, demonstrating its applicability in predicting victims' responses following a transgression.

Regarding Studies 3 and 4, the transgression might have not been meaningful enough and might have accounted for the nonsignificant results in these studies. Specifically, although the participants perceived the transgression to have had a moderate impact on them, during the funnel debriefing, participants did not seem to attribute their bad performance on the task and their lost opportunity to enter the draw to the confederate's distraction. Thus, the transgression might have been impactful but not perceived as costly to the participants. In addition, regarding the mediational analyses in Study 4, although the direction between the variables is largely in the predicted direction, there was no evidence for the mediational role of victims' 'lack of a need to teach the transgressor a lesson' and 'safety.' This could have also been due to the participants not perceiving the transgression as costly and as a result, they may have not perceived the situation to be worthy of teaching a lesson or as feeling safe.

This research also produced some unexpected findings in Studies 3 and 4. First, is the aggregated non-self-report grudge measure in Study 3. In contrast to the prediction, the pattern of results in Figure 3 showed that under conditions of assurance, powerless victims were more likely to ruminate about the transgression than under conditions of no assurance. This might have happened because by acknowledging the wrong-doing, powerless victims might have felt validated and took the opportunity to write about their negative experience more seriously than those in the no assurance condition where their experience was not validated. In addition, contrary to the prediction, the highest level of rumination occurred for participants who were in

the high power no assurance condition. This could have been due to the goal-orientated nature of this task, whereby participants were asked to write in details about their experience with their partner. Because powerful individuals are goal- and action-oriented (Galinsky et al., 2003; Guinote, 2007c; Keltner et al., 2003), they may have considered this task as a goal, and achieved it well. Furthermore, contrary to the prediction that grudge would be highest in the low power no assurance condition, and that revenge would be highest in the high power no assurance condition, the pattern of results in both Studies showed that forgiveness was the highest response in the low and high power no assurance conditions. This could have been due to participants perceiving the transgression as not costly and therefore, not worthy of holding a grudge or seeking revenge. In fact, relative to forgiveness, seeking revenge and holding a grudge were the least likely responses in all conditions.

### **Limitations and Future Direction**

Although this research has limitations such as the low number of participants in Study 3 and the less meaningful nature of the transgression in Studies 3 and 4, this research has a number of strengths. Specifically, this research used designs that were experimental, used retrospective, actual, and scenario-based transgressions, and it included samples of undergraduates as well as nonstudent adults.

Finally, future research should focus on a few directions. Most importantly, is the continued investigation of the moderating role of assurance of no future transgressions and the proposed mechanisms of victims' 'lack of a need to teach the transgressor a lesson' and 'safety' using more meaningful transgressions. For example, future research could utilize retrospective transgressions that were meaningful and costly to the victims. Another method/transgression that could be utilized is to use a nonstudent adult sample and ask participants to imagine their

manager or subordinate at their current work-place committing a costly transgression against them, such as costing them a promotion. Furthermore, future research should continue to investigate holding a grudge as one post-transgression response. For example, future research could investigate the potential moderators to the relation between power and grudge and the conditions under which powerless individuals might seek revenge. For instance, under conditions whereby powerless victims are presented with an anonymous opportunity to seek revenge, or in a situation whereby taking revenge would have no consequences, powerless victims might gain power, become more approach-oriented, and decide to seek revenge against the transgressor. Preliminary evidence from this research supports this possibility. Specifically, although not significant, when participants were given the opportunity to use hot sauce in the confederate's drink, participants who were in the powerless no assurance condition seemed to have sought the most revenge. Investigating the factors, the moderators, and the mechanisms that influence a victim's decision to hold a grudge is crucial in developing scholars' understanding of this construct.

### **Conclusion**

Victims' sense of power is likely to influence their responses following a transgression. Powerful victims who are approach-motivated are more likely to seek revenge, whereas powerless victims who are inhibition-motivated are more likely to hold a grudge. The effects of power on forgiveness, however, are not direct and are more likely to occur under certain conditions, such as assuring the victim that the transgressor will not happen again. Although results from this research are not conclusive, preliminary evidence suggests that assurance decreases powerful and powerless victims' antisocial responses and increases their forgiveness. Finally, although this research did not demonstrate that victims' 'lack of a need to teach the

transgressor a lesson' and 'safety' explain why assurance decreases and increases powerful and powerless victims' antisocial and prosocial responses, respectively, future research will continue to investigate these mechanisms using more meaningful transgressions. Theoretically, the above findings are important because they advance our understanding of post-transgression responses, the factors that influence them, and the mechanisms that underlie them. Practically, this research is useful in resolving conflicts that occur in families and romantic relationships, professional and organizational settings, and societal as well as conflicts between nations.

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## Footnotes

1. The analysis was also conducted on the two sub samples separately. Regarding the undergraduate sample, power had a non-significant effect on revenge,  $t(61) = 1.34$ ,  $p = .18$ ,  $d = .34$ ; grudge,  $t(60) = 1.40$ ,  $p = .89$ ,  $d = .36$ ; and forgiveness  $t(61) = 1.22$ ,  $p = .23$ ,  $d = .31$ ). Regarding the nonstudent adult sample, power had a significant positive effect on revenge ( $M_{\text{powerful}} = 3.64$ ,  $SD = 1.58$ ,  $M_{\text{powerless}} = 3.06$ ,  $SD = 1.60$ ,  $t(115) = 2.00$ ,  $p = .05$ ,  $d = .37$ ); a significant negative effect on grudge ( $M_{\text{powerless}} = 4.00$ ,  $SD = 1.51$ ,  $M_{\text{powerful}} = 3.18$ ,  $SD = 1.71$ ,  $t(115) = -2.54$ ,  $p = .01$ ,  $d = .47$ ); and a nonsignificant effect on forgiveness  $t(115) = .92$ ,  $p = .36$ ,  $d = .17$ ).
2. Regarding the amount of details that the participants wrote as a measure of non-self-report grudge, their description was coded by two independent raters with a relatively high inter-rater reliability, Kappa = .74,  $p < .01$ . Regarding the latency behavioural measure of forgiveness, the latency of those who did not help was coded as 28.53 seconds (10 seconds added to the longest time it took to help). In addition, regarding the number of coins picked up as a behavioural measure of forgiveness, the number of coins for those who did not help was coded as 0. Regarding the behavioural measure of revenge, two participants had completely emptied the hot-sauce bottle and were removed from the analysis. Finally, in order to proceed to the self-report questionnaire, the participants were prompted to rate their experience working with their partner in the first round. Only 101 participants rated their experience as negative and thus, were the ones included in the analysis.
3. The behavioural forgiveness measure included in Figure 3 represents the number of coins that the participants picked up. An additional two separate MANOVAs were

conducted using each of the other two measures (whether or not the participants helped, and latency). The analyses for these additional two behavioural measures of forgiveness produced similar omnibus results as well as a similar pattern of results to the number of coins measure.

## Appendix A

URPP 6-digit code: \_\_\_\_\_

### **Cognitive Task - Round 1**

Each question contains two or three blanks and you have to find the best answer for each blank to make the sentence make complete sense.

*Example:*

One (1)\_\_\_\_\_ of the new scheme is that it might actually (2)\_\_\_\_\_ just those applicants that it was intended to encourage.

Blank 1: attraction, highlight, **disadvantage**

Blank 2: persuade, **scare**, inspire

*Example correctly completed:*

One **disadvantage** of the new scheme is that it might actually **scare** just those applicants that it was intended to encourage.

- 1) Ben was unable to (1)\_\_\_\_\_ the results of the survey; although entirely unexpected, the figures were obtained by a market research firm with a/an (2)\_\_\_\_\_ reputation.

Blank 1: believe, accept, discount

Blank 2: average, undesirable, flawless

- 2) It is a common complaint that people today have a short attention span. But is it that people are (1)\_\_\_\_\_ if the television camera (2)\_\_\_\_\_ a view, or is it that the (3)\_\_\_\_\_ from one angle to another has trained the viewer to expect variety?

Blank 1: satisfied, fascinated, impatient

Blank 2: lingers over, cuts short, rapidly changes

Blank 3: constant shift, delay in moving, inability to move

- 3) Stress-induced amnesia is a rare and (1)\_\_\_\_\_ phenomenon; it strikes the patient apparently without warning and the memory loss can be as (2) \_\_\_\_\_ as that induced by (3)\_\_\_\_\_ trauma.

Blank 1: devastating, complicated, dangerous

Blank 2: generic, limited, complete

Blank 3: unexpected, mental, physical

- 4) It cannot be denied that without creative reasoning it would not have been possible to (1)\_\_\_\_\_ of classical physics. Yet classical physics has no contribution to make to

the understanding of (2)\_\_\_\_\_. This kind of (3)\_\_\_\_\_ is surprisingly common in logic as well as in life.

Blank 1: dispute the value, lay the foundations, understand the basics

Blank 2: creative reasoning, other sciences, the arts

Blank 3: circular reasoning, inflexibility, symmetry

- 5) People who seek advice from (1)\_\_\_\_\_ often find that what they are told can seem true, because these seekers of information attribute significance to some predictions and ignore others. The mind seeks to make sense of predictions that, in themselves, have no (2)\_\_\_\_\_ value, and thus it becomes difficult to prove that the forecasts are (3)\_\_\_\_\_ .

Blank 1: experts, philosophes, clairvoyants

Blank 2: special, general, legal

Blank 3: genuine, specious, accurate