

Situational Precursors of Revenge: Social Exclusion, Relationship Type, and Opportunity

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This paper uses data of the LISS (Longitudinal Internet Studies for the Social sciences) panel administered by CentERdata (Tilburg University, the Netherlands). The LISS panel data were collected by CentERdata (Tilburg University, the Netherlands) through its MESS project funded by the Netherlands Organization for Scientific Research. The authors would like to thank German Kurapov, Marja Heerkens, and Ron Elshout for assisting with coding the acts and rating severities.

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Abstract

Little is known about the situational factors that turn feelings of revenge into actual acts of revenge. Addressing this gap in the literature, the present study selected a representative sample of people who acted on their feelings of revenge (avengers) and of people who did not (non-avengers), obtaining a reflection of typical antecedents of revenge. Results revealed that avengers did *not* report more severe offenses. Neither did avengers report less closeness to offenders nor a larger number of audience members towards whom they might want to prove something. Results did reveal that revenge was more prevalent (1) among young, male friends and acquaintances, (2) in contexts involving social exclusion, and (3) if there was a possibility to take revenge.

Keywords: revenge, vengeance, violence, aggression

Situational Precursors of Revenge: Social Exclusion, Relationship Type, and Opportunity

Acts of revenge are often excessive and may have severe consequences (Bar-Elli & Heyd, 1986; Frijda, 1994, 2007; Kim & Smith, 1993; Stuckless & Goranson, 1992; Uniacke, 2000; Vos, 2003). Acts of revenge comprise personally and societally disruptive acts, including rape (Keppel & Walter, 1999; Scully & Marola, 1985), homicide and murder (Brookman, 2003; Keppel & Walter, 1999), school shootings (Harter, Low, & Whitesell, 2003), and even mass murder (Miller, 2014). To prevent such severe consequences, it is important to gain insight into predictors of revenge. However, acts of revenge are often unpredictable as evidenced by reactions to murder. Indeed, commonly friends and acquaintances of avengers express disbelief when hearing about the horror caused by “such a normal person”. Reactions such as “He seemed like a totally normal, nice guy”, “I never would have thought he’d do something like that”, “It freaks me out to this day that he seemed so normal but apparently wasn’t...”, “I never would’ve expected him to murder anyone” are rule rather than the exception when people discovered that the person they knew was a murderer (see digital magazine Thought Catalog for more examples (<http://thoughtcatalog.com/christine-stockton/2013/12/30-people-on-that-time-i-knew-a-murderer/>)). As another illustration, 2015 Paris attack survivor Jerome Lorenzi described the terrorist he saw as “[looking] normal (...). He could have been your neighbor.”

Of course, not all murders are acts of revenge and not all acts of revenge are as extreme as murder. However, the unpredictability of acts of revenge is also apparent in more common acts of revenge. In a pretest¹, we asked victims of revenge to what extent they felt

¹ In the pretest, we asked 200 MTurk workers ($M_{\text{age}} = 32.35$ years, $SD = 10.67$; 36% female), who received 0.30 dollar for participating, whether they could recall a specific situation in their own lives in which they were the victim of revenge. In total, 152 (76%) could recall such a situation. They indicated their initial emotional response to the situation by reporting to what extent they felt the following emotions on 7-point scales (1 = *not at all*, 7 = *completely*): surprise, fear, anger, and sadness. Paired-samples t-tests with a Bonferroni correction revealed that these participants felt surprise ($M = 5.23$, $SD = 1.55$) and anger ($M = 5.66$, $SD = 1.45$) to

several emotions. Interestingly, next to anger, the emotion that was experienced most intensely was surprise. One participant even commented at the end of the questionnaire: “I think being the victim of revenge is always surprising, even if you realize you have done wrong by the person originally.”

Given the severe nature and unpredictability that is associated with revenge, it comes as no surprise that research has tried to uncover factors that are associated with the likelihood of revenge. A number of studies have focused on how demographics and personality traits affect revenge attitudes and intentions. These studies have shown that vengefulness is higher among men than women (Brown, 2004; Cota-McKinley, Woody, & Bell, 2001; Stuckless & Goranson, 1992; but see Ysseldyk, Matheson, & Anisman, 2007, who found no difference), younger people, and religious conservatives (Cota-McKinley et al., 2001). Vengefulness is also positively associated with narcissism (Brown, 2004; Exline, Baumeister, Bushman, Campbell, & Finkel, 2004; Giammarco & Vernon, 2014; Rasmussen & Boon, 2014), social dominance (McKee & Feather, 2008), power attitudes (McKee & Feather, 2008), endorsement of the negative reciprocity norm (Eisenberger, Lynch, Aselage, & Rohdieck, 2004), neuroticism (McCullough, Bellah, Kilpatrick, & Johnson, 2001; but see Sheppard & Boon, 2012, who find no association), and trait anger (Stuckless & Goranson, 1992), and negatively associated with agreeableness (McCullough et al., 2001; Sheppard & Boon, 2012), empathy (Stuckless & Goranson, 1992), and universalism and benevolence values (McKee & Feather, 2008).

Although this does provide an idea of the kind of people that are inclined to vengeful sentiments, we know much less about the circumstances that ultimately determine whether people actually take revenge or not. Therefore, the present study focused on situational factors

an equal extent, but felt both emotions more than fear ($M = 4.02$, $SD = 1.94$) and sadness ($M = 3.87$, $SD = 2.10$), $t_s > 6.38$, $p_s < .001$, which did not differ significantly from each other.

that could be related to actually taking revenge. We collected a representative sample of avengers (i.e., people who had feelings of revenge and took revenge) and non-avengers (i.e., people who had feelings of revenge but did not take revenge) to gain a better understanding of the situational factors that distinguish avengers from non-avengers. In this way, we gain more insight into common antecedents of real-life acts of revenge. Also, to allow for a complete focus on situational factors, we used a design that makes explanations in terms of personality differences between avengers and non-avengers unlikely (see method section). Finally, we hoped that by focusing on situational precursors, we would gain more insight into *why* acts of revenge are so unpredictable. For example, if the decision to take revenge particularly depends on the severity of the offense, it may not be so difficult to predict whether acts of revenge will occur (after severe offenses, revenge would be likely). However, if the decision to take revenge particularly depends on whether there are opportunities to take revenge, it may be difficult to predict whether acts of revenge will occur (any offense could be followed by revenge as long as there is an opportunity), also because (new) opportunities may still arise.

Situational Precursors of Revenge

Prior research has provided little insight into situational factors that might influence whether people take revenge. Most empirical research comparing avengers and non-avengers focused on a different research question, such as whether revenge is satisfying (e.g., Carlsmith, Wilson, & Gilbert, 2008; Gollwitzer, Meder, & Schmitt, 2011). In fact, to our knowledge there are only three studies that have compared avengers and non-avengers on potential situational precursors of revenge (Boon, Deveau, & Alibhai, 2009; Crombag, Rassin, & Horselenberg, 2003; Stillwell, Baumeister, & Del Priore, 2008, Study 2). These studies all compared autobiographical descriptions of avengers to those of non-avengers.

Intriguingly, none of these studies found any differences in situational precursors described by avengers and non-avengers.

There may be several reasons for this. First, none of these studies explicitly focused on identifying situational precursors differentiating avengers and non-avengers. Second, often only one potential situational precursor (type of offense) was included. Third, the studies often focused on particular domains in which revenge may occur (e.g., romantic relationships). Fourth, participants were asked to report an instance in which they had “gotten even” with a romantic partner. Recent studies have shown that restoring balance is but one of the many aspects of revenge (Elshout, Nelissen, & Van Beest, 2015a) and that it is not the aspect that differentiates it from related concepts, such as anger-driven responses (Elshout, Nelissen, & Van Beest, 2015b). Finally, all three studies consisted of student samples. Students are relatively young and have therefore encountered a less extensive range of offenses that may lead to revenge (students have little experience with divorce, for instance) and, as young adults, may view different kinds of offenses as deserving of revenge (e.g., a partner who kissed another) than a more diverse sample. Thus, it is important to examine more diverse samples before concluding that the type of offenses does not predict whether people take revenge. Importantly, all three studies call for more comprehensive research on situational precursors of revenge, “especially with participants other than undergraduates” (Stillwell et al., 2008, p. 262), and acknowledge that this might reveal differences between avengers and non-avengers. In short, although prior research has provided interesting insights on several aspects of revenge, this research cannot draw definite conclusions on the presence or absence of situational precursors of revenge.

In the current study, we therefore examined a more comprehensive set of potential situational precursors and relied on a more diverse sample than a student population. Specifically, we focused on factors that we believed represented a comprehensive list of

situational characteristics that could make the difference between enacted and unacted feelings of revenge. In our view, there are three main categories: (1) factors that capture the nature of the offense, (2) factors that capture the relationship between offender and offended, (3) factors that capture the context in which an offense takes place. Below we explain each of the factors in more detail.

The Nature of the Offense

Revenge may be more likely after certain types of offenses (e.g., reputational damage, social exclusion, infidelity) than others. However, this has not yet been uncovered by prior research nor described in definitions of revenge. In fact, most definitions of revenge are relatively silent about the nature of the offense. Typically, definitions (e.g., Aquino, Tripp, & Bies, 2001; Kim & Smith, 1993; Stuckless, Ford, & Vitelli, 1995; Stuckless & Goranson, 1992; Tripp & Bies, 1997) capture the nature of offenses only in terms of “harms” and “wrongs”. This provides little information on which specific types of offenses are relatively more likely to precede revenge. In the present study, we explicitly address this shortcoming in prior conceptualizations of revenge by comparing the types of offenses reported by avengers to those reported by non-avengers.

Moreover, we posit that the offenses that avengers and non-avengers report may differ in terms of their *perceived intensity*. Perhaps offenses that lead to revenge are perceived as more severe and elicit more intense emotions than offenses that do not lead to revenge. Furthermore, if offenses are more intense, offenses that precede acts of revenge may also involve more rumination than those that do not. Rumination has been positively associated to vengefulness (McCullough, Bellah, Kilpatrick, & Johnson, 2001; McCullough, Bono, & Root, 2007) and aggression (Bushman, 2002; Caprara, 1986; Denson et al., 2011), but links are sometimes absent (Ysseldyk, Matheson, & Anisman, 2007). In short, we examined

whether the nature of offenses described by avengers and non-avengers differs in that offenses described by avengers were more intense and instigated by qualitatively different events.

The Relationship Between Offender and Offended

On the one hand, close relationships may inhibit revenge for fear of relational consequences. On the other hand, revenge may be more likely in close relationships because the offense hurts more or more is at stake. Similarly, revenge may be less or more common among friends and acquaintances as opposed to strangers. The only study that systematically investigated the relationship between avengers and their victims in the context of real-world acts of revenge (Stillwell et al., 2008, Study 2) found no differences between avengers and non-avengers, most likely for reasons stated above. In our study, we measured the nature of the relationship between the offender and the offended (e.g., friends, colleagues, partners, etc.) and the perceived closeness of that relationship.

As described before, we did not focus on personality traits of the offended (i.e., potential avengers), which has been done in many other studies. We did, however, include gender and age in our study, as these are the customary demographic characteristics to be included in any psychological study. Furthermore, the combination of offender and offended's gender can be perceived as a situation-specific characteristic as it captures an aspect of the relationship between offender and offended.

The Context of the Offense

An important situational factor is that the offense can take place with or without an audience. Given that revenge may be motivated by reputational concerns (Elster, 1990) the more people are present, the more likely revenge may become. Similarly, since revenge may be a way to deter future offenses (McCullough, Kurzban, & Tabak, 2013) revenge may be more likely when a large audience is present at the offense, so that these other people are warned at the same time. The opposite may also occur: Because revenge is often frowned

upon by outsiders (Tripp, Bies, & Aquino, 2002), the more people are present, the less likely revenge may become. Thus, although its direction may not be entirely clear, the number of people may affect whether or not people take revenge.

In addition, situations may differ in the extent to which they offer a revenge possibility. Avengers may have had more or better opportunities to take revenge than non-avengers. If so, non-avengers may not at all differ from avengers in their desire for revenge and may even be future avengers (who are still waiting for their opportunity). Of course, some non-avengers will never have an opportunity to take revenge, as is the case when the offender has died or is unknown (e.g., when discovering burglary without traces of the burglar).

The Present Study

The current article investigated differences between avengers' and non-avengers' descriptions of autobiographical situations to uncover situational precursors of revenge. We specifically focused on (1) factors that capture the nature of the offense, (2) factors that capture the relationship between offender and offended, and (3) factors that capture the context in which an offense takes place.

Method

Participants recalled an autobiographical situation in which they experienced feelings of revenge and either took revenge (avengers) or did not take revenge (non-avengers). The materials of this study were selected from a larger study that contained many variables. We only included variables relevant for the current research question. Excluded variables focused on the prevalence of revenge, characteristics of the revenge act, revenge fantasies, and motivations. Data of all variables, including reported variables of this paper, is available on the CentERdata website (for more information on how to access the data, please visit <http://www.centerdata.nl/nl/databank>).

Participants and Procedure

Participants were randomly drawn from the CentERdata LISS (Longitudinal Internet Studies for the Social Sciences) panel. This is a representative sample of the Dutch population. Panel members participate in monthly Internet surveys in exchange for € 7.50 per half an hour. We started with a sample of 2500 participants, who received an announcement of our questionnaire on feelings of revenge one month prior to the actual questionnaire. In the announcement, we asked them to think of situations in which they had experienced feelings of revenge toward a specific person. We announced the study because we were wary that participants might indicate too easily that they had never experienced feelings of revenge. Panel members who read the announcement (81.6%) received the questionnaire. Out of 2029 participants selected for the questionnaire, 1767 participated ($M_{\text{age}} = 51.71$ years, $SD = 17.08$, range: 16-89; 52.8% female, 87.1% response rate).

A total of 597 participants (33.9%) indicated that they had never experienced feelings of revenge. Because the whole questionnaire was about feelings of revenge, for these participants the questionnaire ended and they received their payment. Although we did not tell participants in advance that if they indicated that they had never experienced feelings of revenge the questionnaire would end, yet they would receive the full payment, it is possible that some participants concluded this themselves. This may have influenced their response if they were motivated to get paid as quickly as possible. Therefore, the percentage should be interpreted with caution. The remaining participants proceeded with the autobiographical recall task in which participants wrote about a time in their lives in which they experienced feelings of revenge and did or did not take revenge.

Participants who indicated that they had taken revenge at least once in their lives (37.9%, $n = 440$) were randomly assigned to the *avengers* or *non-avengers* condition. This randomization ensured that groups could not be differentiated on demographics or personality traits. Importantly, this allowed us to completely focus on situational differences. Of course,

there were also people who indicated that they had never taken revenge (62.1%, $n = 722$). We could not divide these people into avengers and non-avengers, so these participants were assigned to the *non-avengers* condition. For a graphical display of the design, see Figure 1. For reasons of clarity and because our research question did not focus on differences between non-avengers who had vs. had not taken revenge at least once in their lives, we combined the two non-avengers groups whenever possible. Because differences between the avengers and non-avengers condition could then result from divergent characteristics of the non-avengers who had never taken revenge group (which consisted of participants who were not randomly but automatically assigned to the non-avengers condition), we did separate the groups whenever preliminary analyses revealed a difference between the two non-avengers groups (this only occurred on offense severity).

Before combining the two non-avenger groups, we also compared the three groups in our design in terms of personality (with the IPIP; Goldberg, 1992). Results indicated that the individuals in the three groups did not differ in extraversion, agreeableness, conscientiousness, and emotional stability. There was, however, a small difference in intellect, $F(2, 892) = 8.87, p < .001, \eta_p^2 = .02$. Post-hoc tests revealed that the two non-avenger groups did not differ in intellect ($p = .153$), nor did the avengers and non-avengers who had taken revenge at least once (and who should not differ because of randomization, $p = .105$); however, avengers had a slightly higher intellect than non-avengers who had never taken revenge. Together, the results indicated that (1) the two non-avenger groups did not seem to differ in personality and (2) the random assignment of participants who had taken revenge at least once into avengers and non-avengers had been successful, since these groups also did not differ in personality.

Some avengers ($n = 82$) and non-avengers ($n = 159$) were excluded from the analyses because they did not follow instructions. For example, they described no situation, a situation

in which no specific person was the offender, a situation in which they had not taken revenge in the avengers condition (and vice versa), or a hypothetical situation or a situation that did not happen in their own lives. All these participants were excluded before analyses (including the personality analyses described above) were performed.² After excluding participants, 921 participants remained: 139 avengers, 189 non-avengers who had taken revenge at least once in their lives, and 593 non-avengers who had never taken revenge ($M_{age} = 49.63$ years, $SD = 16.74$, range: 16-88; 53.3% female, $n = 491$ and 46.7% male, $n = 430$).

Materials

General instructions and offense descriptions. Avengers [non-avengers] read the following instructions (translated from Dutch):

We would like to ask you to describe a situation in which you experienced feelings of revenge toward one person and actually took revenge [but eventually did not take revenge] on this person. This is the main part of our study, so please think carefully about this. Choose a situation that you can remember well.

In addition, participants who were classified as avengers read the following instructions for reasons of clarity:

Describing your situation of revenge will occur in two stages. In the first stage, we will ask you to describe which behavior the other person displayed toward you that made you want to take revenge. Subsequently, we will ask you some questions about this incident. Only in the second stage will we ask you to describe your response to this incident, your act of revenge, and ask some questions about that. Describe the other person's behavior that made you want to take revenge below (so, do not yet

² We repeated the analyses on the whole sample, including data from these participants. The only difference was that on the whole sample, sadness after the offense differed between conditions, with non-avengers feeling slightly more sad than avengers when testing emotions separately, $t(1144) = 2.02$, $p = .043$, $d = 0.15$. All other conclusions remained the same.

describe your act of revenge). Please describe the other person's behavior as detailed as possible.

Because this paper is solely focused on comparisons between avengers and non-avengers, we will not discuss the act of revenge and items pertaining specifically to the act of revenge (which were completed by avengers only). Participants who were classified as non-avengers only read: "Describe the other person's behavior that made you experience feelings of revenge below. Please describe the other person's behavior as detailed as possible."

The nature of the offense. To measure the nature of the offense, we examined the type of offense that preceded feelings of revenge as well as offense severity.

Type of offense. We performed a content analysis of all offense descriptions. Since some participants described multiple acts, we first separated these acts, which led to a total of 1093 distinct offenses. One of the authors reduced each offense into one sentence without irrelevant context and then into a few words, describing the core act only (e.g., rejection, verbal aggression). Similar words (e.g., rejection, ignoring, excluding) were placed into one category. A second author received all data, including the original stories, and also coded the data, after which both authors met to discuss discrepancies.

The categorization process resulted in 11 categories: (1) reputational damage (e.g., gossiping), (2) personal devaluation (e.g., belittling), (3) arguing (e.g., verbal aggression), (4) annoyances (e.g., egotistic behavior), (5) violence (e.g., kicking), (6) damaging or stealing property, (7) Social exclusion (e.g., ignoring someone), (8) lying, (9) infidelity, (10) sabotage (e.g., withholding important information), (11) violating a promise or agreement (for the full coding scheme, see Elshout et al., 2015b). In 15 of 1093 cases, the offense was described too ambiguously to be ascribed to a category. To examine the consistency of the categorization, an independent rater received the coding scheme and coded all offenses. The categorizations were highly consistent, $\kappa = .72$, and so we retained our categorization.

Offense severity. Participants indicated on a 7-point scale to what extent they thought the offender's behavior was severe (1 = *not at all severe*, 7 = *very severe*). In addition, to obtain more objective scores of offense severity, we asked three independent raters to rate offense severity, using the same item as participants, ICC = .77. The ratings of the three raters were averaged. We also measured offense severity by participants' emotional reactions to the offense. Participants indicated the extent to which they felt the following emotions after the offense on 7-point scales (1 = *not at all*, 7 = *completely*): 1) humiliation, 2) hurt feelings, 3) anger, 4) shame, 5) disappointment, 6) sadness, 7) fear, 8) contempt, 9) feelings of revenge, 10) other. Finally, we measured rumination after the offense, an average of three items that measured the extent to which participants "often remembered what the other had done", "could not get the other person's behavior out of my head", and "kept replaying what the other person had done in my head" (1 = *not at all*, 7 = *completely*; $\alpha = .83$).

The relationship between offender and offended. As for the relationship between the offender and the offended, we measured the type of offender (e.g., friend, sibling) as well as perceived closeness to the offender.

Type of offender. Participants indicated whether the offender (who was always called "the other person") was male or female, and estimated the offender's and their own age at the time of the incident. They also indicated who the offender was: 1 = (ex-)partner, 2 = father/mother, 3 = child, 4 = sibling, 5 = other family members, 6 = a (male or female) friend, 7 = boss, 8 = coworker, 9 = neighbor, 10 = acquaintance (not a friend), 11 = stranger, 12 = other. Moreover, participants indicated how often they saw the offender before the incident: 1 = (almost) daily, 2 = weekly, 3 = monthly, 4 = yearly, 5 = less than once a year, 6 = never.

Perceived closeness with the offender. Participants indicated the closeness of their relationship with the offender by the Inclusion of Other in the Self scale (Aron, Aron, & Smollan, 1992). Participants saw seven pictures of two circles, one representing the self and

one representing the other person. The extent to which the circles overlapped differed in each picture. Participants chose the picture that best described their relationship with the offender. The score on this scale ranges from 1 to 7, whereby 7 is complete overlap between self and other.

The context of the offense. We measured the social context of the offense (e.g., presence of an audience) and whether there had been a revenge possibility at the offense.

Social context of the offense. Participants then indicated how many people were present at the offense (not counting themselves and the offender). We asked participants who indicated that people were present to indicate what kind of people these were: 1 = acquaintances, 2 = strangers, 3 = mix of acquaintances and strangers.

Revenge possibility. Participants indicated on a 7-point scale to what extent it was possible to react at the moment of the incident (1 = *not at all possible*, 7 = *completely possible*).

Data Analysis

Categorical outcome variables were analyzed with chi-square tests and (multinomial or binary) logistic regression analyses; continuous outcome variables were analyzed with *t*-tests or ANOVAs with Tukey-Kramer corrected post-hoc tests (for unbalanced designs) for variables with equal variances and Welch tests and Games-Howell post-hoc tests for variables with unequal variances.

Results

The Nature of the Offense

Type of offense. Both avengers (18.4%) and non-avengers (18.9%) reported most often that an annoyance was the offense that resulted in their feelings of revenge. Avengers reported different offenses than non-avengers, $\chi^2(10, N = 1078) = 19.25, p = .037$, Cramer's $V = .13$ (Table 1). We inspected the standardized residuals to examine which cells contributed

mostly to this difference. This revealed that avengers reported particularly more offenses of social exclusion (standardized residual 2.7) than non-avengers. No other standardized residuals were greater than $|2|$.

Offense severity. For offense severity, the two non-avengers groups could not be combined. A condition (avengers vs. non-avengers who had never taken revenge vs. non-avengers who had taken revenge at least once) \times person (participants vs. raters) mixed ANOVA revealed no interaction effect, $F(2, 915) = 2.14, p = .118$. The analysis did yield a main effect of person, $F(1, 915) = 2330.08, p < .001, \eta_p^2 = .72$, with participants themselves judging offenses as more severe ($M = 6.03, SD = 1.26$) than raters did ($M = 3.59, SD = 1.06$). There was also a main effect of condition, $F(2, 915) = 8.57, p < .001, \eta_p^2 = .02$, with post-hoc tests revealing that non-avengers who had never taken revenge ($M = 4.90, SD = 0.95$) reported a higher offense severity than non-avengers who had taken revenge at least once ($M = 4.70, SD = 0.96$), $p = .038$, and avengers ($M = 4.56, SD = 0.95$), $p < .001$, which did not differ from each other in offense severity, $p = .366$ (Table 2).

Avengers and non-avengers did not differ in the emotional response after the offense. A condition (avengers vs. non-avengers) \times emotion after offense (the nine emotions) mixed ANOVA revealed no main effect of condition and no interaction effect, $F_s < 1.16, p_s > .281$. Examining differences between avengers and non-avengers on each emotion separately also revealed no differences between avengers and non-avengers, $|t|s < 1.54, p_s > .124$. As for rumination, avengers ruminated significantly *less* about the offense ($M = 4.39, SD = 1.76$) than non-avengers ($M = 4.81, SD = 1.63$), $t(916) = -2.80, p = .005, d = -0.26$.

Taken together, our analyses of the nature of the offense revealed that social exclusion is a key variable that differentiates whether feelings of revenge turn into behavior. Interestingly, offense severity was not such a variable. If anything, avengers perceived the offense as *less severe* than non-avengers, indicating that people do not take revenge more

often after severe offenses. Revenge was also not more likely after offenses that elicited more intense emotions and/or rumination.

The Relationship between Offender and Offended

Type of offender. In general, the offender's gender was more often male (66.9%, $n = 616$) than female (33.1%, $n = 305$), $\chi^2(1, N = 921) = 105.02, p < .001$. A binary logistic regression analysis with condition (avengers vs. non-avengers) and participants' gender as factors and offenders' gender as the dependent variable revealed a significant effect of the model, $\chi^2(3, N = 921) = 72.69, p < .001$, Nagelkerke $R^2 = .11$. This was caused by a significant effect of participants' gender, $\text{Exp}(B) = 0.28$, $\text{Wald} = 12.09, p = .001$, indicating that women reported significantly more often female offenders (45.0%) than men did (19.5%). Other effects were not significant, $\text{Walds} < 1.19, ps > .275$, revealing that whether revenge was taken did not depend on the offender's gender.

Avengers and non-avengers did differ in their own and the offender's age at the time of the offense, as revealed by a condition (avengers vs. non-avengers) \times person (own vs. offender's) mixed ANOVA on age at the time of the offense. There was no main effect of person (so, on average, participant and offender were equally old) and no condition \times person interaction effect, $F_s < 0.17, ps > .685$, but there was a main effect of condition, $F(1, 919) = 12.69, p < .001, \eta_p^2 = .01$. In the avengers condition, participants ($M = 36.47, SD = 16.97$) and offenders ($M = 36.09, SD = 15.36$) were younger at the time of the offense than in the non-avengers condition ($M = 41.01, SD = 16.43$ and $M = 40.78, SD = 16.13$, respectively).

Avengers and non-avengers reported different types of offenders, $\chi^2(11, N = 920) = 30.43, p = .001$, Cramer's $V = .18$ (Table 3). We inspected the standardized residuals to examine which cells contributed mostly to this difference. Avengers reported more friends (standardized residual = 3.2) than non-avengers. No other standardized residuals were greater than $|2|$, although avengers' standardized residuals for acquaintances (1.8; revenge more

likely) and strangers (-1.7; revenge less likely) came close. This made us wonder whether avengers reported more people they knew beforehand and fewer strangers than non-avengers. We therefore transformed the item into a dichotomous item of stranger (stranger category) or non-stranger (all other categories), which differed between avengers and non-avengers, $\chi^2(1, N = 920) = 4.07, p = .044, \Phi = .07$, with avengers reporting fewer strangers as offenders (7.2%) than non-avengers (13.3%).

Avengers and non-avengers differed in how often they saw the offender before the event took place, $\chi^2(5, N = 920) = 12.91, p = .024$, Cramer's $V = .12$. Standardized residuals revealed that this effect was due to avengers reporting slightly more often that they saw the offender daily (standardized residual = 1.9) and less often that they never saw the offender (-2.5), which corresponds with the offender being more often a friend and less often a stranger (percentages of avengers: 48.9% daily, 20.1% weekly, 15.8% monthly, 3.6% yearly, 4.3% less than once a year, 7.2% never; percentages of non-avengers: 36.9% daily, 23.3% weekly, 14.3% monthly, 4.7% yearly, 3.7% less than once a year, 17.0% never).

Perceived closeness with the offender. There was no difference between avengers ($M = 2.94, SD = 1.93$) and non-avengers ($M = 2.73, SD = 2.03$) in closeness with the offender before the event took place, $t(918) = 1.100, p = .272$. Thus, revenge was not inhibited but also not facilitated by closeness of the relationship. It may not seem intuitive that avengers reported fewer strangers (and more friends) than non-avengers as offenders but not more closeness to the offender. However, avengers also seemed to report slightly more acquaintances with whom they were not befriended (offenders with whom they were not close) and non-avengers seemed to report slightly more family members (offenders with whom they were close), which may explain why we did not find a difference in closeness.

Taken together, offenders were most often male, and this was the case for both avengers and non-avengers (to an equal extent). Revenge was more likely when offenders and

avengers were young. Revenge was also more likely when the offender was a friend and less likely when the offender was a stranger. Perceived closeness with the offender did not influence whether revenge was taken.

The Context of the Offense

Social context of the offense. There was no difference between avengers ($M = 11.99$, $SD = 84.92$) and non-avengers ($M = 19.91$, $SD = 364.86$) in how many people were present, $t(918) = -0.26$, $p = .799$. To make this item less susceptible for outliers, we transformed it into a dichotomous item of others being present or not, which also did not differ between avengers (61.2% with audience) and non-avengers (65.0% with audience), $\chi^2(1, N = 920) = 0.78$, $p = .377$. Finally, avengers and non-avengers did not differ in the kind of audience that was present (in total, in 76.9% of the cases they were acquaintances, $n = 456$, in 7.6% of the cases they were strangers, $n = 45$, and in 15.5% of the cases it was mixed, $n = 92$), $\chi^2(2, N = 593) = 0.43$, $p = .806$.

Revenge possibility. Avengers scored significantly higher on revenge possibility ($M = 3.69$, $SD = 2.36$) than non-avengers ($M = 2.96$, $SD = 2.14$), $t(180.51) = 3.39$, $p = .001$, $d = 0.31$.

Taken together, the number and type of audience members did not seem to influence whether revenge was taken. Revenge possibility did, however, appear to be a key variable that differentiates whether feelings of revenge turn into behavior. Revenge was more likely when there was a higher revenge possibility.

Discussion

The study compared avengers and non-avengers on situational factors pertaining to (1) the nature of the offense, (2) the relationship between the offender and offended, and (3) the context of the offense. We found that (1) avengers did not take revenge because offenses were more intense (more severe or emotionally intense or resulting in more rumination) than

offenses that non-avengers reported, (2) because there were more or fewer audience members present, or (3) because they were more or less close to offenders than non-avengers. However, there were also characteristics that did distinguish between avengers and non-avengers. Specifically, revenge was more prevalent (1) among young male friends and acquaintances (non-strangers), (2) after offenses involving social exclusion, and (3) when there was a possibility to take revenge.

The findings suggest that opportunity may be a key factor in the decision to take revenge. After all, there are few other possibilities to react when being socially excluded, since these will probably be ignored. Moreover, revenge was less likely when offenders were strangers, and so, there were fewer opportunities to take revenge (you may not meet again or even have never met, as in the case of burglary). Revenge was also less likely when (perceived) revenge possibilities were low. All in all, these findings suggest that revenge is more likely when (1) there is no possibility to react in other ways and (2) there is an opportunity to take revenge.

Implications

Social exclusion. One finding that we want to draw attention to is that only offenses that can be characterized as social exclusion predictably resulted in revenge. This underscores the social nature of revenge. The finding that social exclusion is a key variable that distinguishes whether or not vengeful feelings turn into actual revenge underlines the harm that is caused by interpersonal threats to belonging. This is also nicely illustrated in research on rejection and belonging threats showing that people who are ostracized, rejected, or excluded by others typically respond with antisocial and downright aggressive behavior (e.g., Buckley, Winkel, & Leary, 2004; Bushman & Baumeister, 1998; Chow, Tiedens, & Govan, 2008; Geller, Goodstein, Silver, & Sternberg, 1974; Van Beest, Williams, & Van Dijk, 2011). Social exclusion and rejection (which we also coded under social exclusion) have not only

been associated with aggression in general but also with very severe forms, such as school shootings (Harter et al., 2003). If social exclusion often provokes acts of revenge and these acts may be particularly severe, instances of social exclusion may be alarm signals that should be closely monitored to prevent harrowing events.

Relationship type. Revenge seemed particularly likely among young offenders and avengers. Apart from being young, these avengers were also often male: Men indicated less often that they had never taken revenge (57.0%, $n = 329$) than women (67.2%, $n = 393$), $\chi^2(1, N = 1162) = 12.75, p < .001, \Phi = .11$. Moreover, offenders were also more often male than female. Thus, revenge is most likely among young men. These findings are in line with the young male syndrome, which depicts offenders of aggressive behaviors, including homicide, as often being young and male (Wilson & Daly, 1985).

Perhaps surprisingly, relationship closeness did not affect whether revenge was taken, indicating that revenge is as common in close relationships (e.g., family) as in less close relationships (e.g., acquaintances). However, this finding is in line with research suggesting that the urge to take revenge is also present in close relationships (Fitness & Peterson, 2008). Revenge was, however, more likely in certain types of relationship. Revenge was more likely among acquaintances than among strangers. Of course, revenge against strangers may be less likely because it is less often possible, such as in the case of burglary. Moreover, revenge was more likely among friends or acquaintances compared to other types of relationships, such as family. A possibility why this was the case is that this type of relationship can be more easily broken. Although relationships may still recover after revenge has been taken (Fitness & Peterson, 2008), in many instances, avengers are no longer interested in pursuing a relationship with the offender (Elshout et al., 2015b). The relatively high prevalence of revenge among people with whom a relationship can be broken (e.g., friends and

acquaintances) may also indicate that revenge functions as a signal to others (cf. Fitness & Peterson, 2008).

Opportunity. Finally, having more revenge possibilities made revenge more likely, indicating that the decision to take revenge sometimes simply depends on whether there is a possibility to do so. This is in line with the finding that there was less revenge among strangers, who may never meet again (such as in the case of burglary), and so, not have the possibility to take revenge. It is also in line with the finding that revenge was also more likely when the offended was young, which may have allowed for more opportunities to take revenge. Considering that many other situational factors (intensity, audience members) did not seem to be linked to taking revenge, this may be one of the key deciding factors.

Explanations for the unpredictability of revenge. Several findings provide insight into why revenge is so unpredictable. The first is that counter to lay perceptions of revenge and also assumptions underlying revenge theories, we did not find any evidence that revenge behavior is instigated by the severity of the offense. This is perhaps one of the reasons that people often respond in surprise when they are victims of revenge. After all, it is not the intensity of the harm that seems to serve as a clear warning sign (revenge may occur after offenses with minor or with severe consequences). Similarly, the number and types of audience members did not differ between avengers and non-avengers. Revenge did not follow more often when a large number of people were present to prove something to them (to show how reputation was restored or as a signal to deter similar offenses by others) or less often because these people might disapprove of the act, again making it difficult to observe warning signals of revenge. Relationship closeness also did not affect whether revenge was taken. Thus, to predict whether revenge will occur, it seems one cannot rely on several factors that intuitively seem related to revenge and that would have been clear warning signs (severity of the offense, number of audience member, relationship closeness).

The differences that we did find between avengers and non-avengers may also explain why revenge is often unpredictable. For example, although social exclusion is a potential warning sign for revenge, such a qualitative factor is not as easily detectable as the quantitative factors we described above (e.g., severity of the offense) would have been. Opportunity being a deciding factor would also explain why revenge can be unpredictable: Any offense could be followed by revenge as long as there is an opportunity. Moreover, if opportunity is a major deciding factor on whether revenge is taken, some non-avengers may still be awaiting their possibility to take revenge in the future.

Sample. A final implication of the current study is that it underscores the value of using a diverse sample. Prior research did not find any difference between avengers and non-avengers. One reason for this lack in differences is that these studies were based on student samples. The differences that were found in this study but were absent in studies with student samples (e.g., a difference in the type of offense between avengers and non-avengers) suggest that experience of a person (which comes with age) influences whether situational factors result in revenge. In addition, the differences between student samples and a more diverse sample suggest that it is important to use more varied samples when investigating revenge before results can be generalized. Perhaps because people do not usually take revenge on a daily basis, research on revenge in particular needs samples of more experienced people who have encountered a more extensive range of situations that elicit feelings of revenge.

Limitations and Future Directions

It may be observed that of the total sample of over 2000 participants only a relatively low number indicated that they ever took revenge. This is comforting news given the often severe consequences of revenge. However, it is possible that social desirability affected answers to this question. Moreover, it is also possible that people do not realize that some of their actions could be construed as revenge because they themselves do not consider them to

be revenge acts. We would, therefore, like to stress that this low percentage should be interpreted with caution. Similarly, we would like to emphasize that the group of individuals who indicated that they had never taken revenge does not solely contain “people who never take revenge”. It is possible that these individuals have not taken revenge yet, but will take revenge in the future, because the opportunity to take revenge has not yet arisen or for whatever other reason. In short, we stress that the conclusion that the majority of (Dutch) people never take revenge would be premature.

It should also be noted that our research - like any other empirical research investigating situational differences - is limited by its method (cf., Boon et al., 2009). Our conclusions are based on people’s self-reported recollections of offenses. However, we would like to stress that we have no indication that avengers and non-avengers would differ in recollection biases (particularly not when it comes to the comparable groups of avengers and non-avengers who had taken revenge once), so memory distortions are not a likely cause of the results. Nevertheless, it is possible that memory distortions may impede interpretations of absolute values (such as the mean of how many people were present at the offense), which should therefore be interpreted with caution. Future research might address this issue by finding ways to examine more recent episodes of revenge.

One possibility is that lab research can directly observe revenge. However, due to its complexity and severity, it is difficult to use lab procedures when investigating revenge, which can only be done under very special conditions and then only in mild forms (Boon, Alibhai, & Deveau, 2011; Crombag et al., 2003). In addition, lab research may be insightful when investigating personality differences between avengers and non-avengers and keeping the situation constant, but for situational differences, we need external validity, for which autobiographical recalls are a more appropriate method (Baumeister, Stillwell, & Wotman, 1990; Zechmeister & Romero, 2002).

Finally, some specific findings of our study warrant further investigation. For example, it is not clear why avengers ruminated less than non-avengers. One possibility is that the act of revenge brought some closure, resulting in less rumination. Future research might look into this and other possible reasons why avengers ruminated less than non-avengers. Moreover, annoyances seemed the offense that resulted in feelings of revenge most often (but did not distinguish avengers from non-avengers). This finding should be interpreted with caution, because these percentages – and which category scores highest – also depend on how general or specific the coding categories are. Future research might focus on whether the category “annoyances” can be further specified and whether it is a certain type of annoyance (or whether it is about the number of annoyances, since some participants reported someone irritating them again and again) that specifically results in feelings of revenge. Finally, we observed that revenge occurred more often after offenses of social exclusion and it is important to examine why. A possibility is that other types of responses (such as talking about the situation) are hardly possible when people turn their backs on you, and so, responding vengefully may be the only way to show them how you feel about the situation. With the other types of offenses, other types of responses are still possible. As such, the finding that revenge is relatively more likely after offenses of social exclusion may be caused by a lower number of other options. Such underlying processes may be revealed by future research on differences between types of offenses.

Conclusion

We found that revenge was relatively more likely after offenses of social exclusion, when there was a revenge possibility, and among young males toward young (former) friends and acquaintances and not so much toward strangers. Taken together, the results suggest that opportunity is a key factor in the decision to take revenge. Revenge appears to be more likely when (1) there is no possibility to react in other ways (e.g., after social exclusion) and (2)

there is an opportunity to take revenge. These findings may explain why revenge is often unpredictable: Any offense could be followed by revenge (and may still be followed by revenge in the future) as long as there is an opportunity.

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Table 1
Type of Offenses

	Avengers	Non- avengers
Annoyances	18.4%	18.9%
Damaging or stealing property	7.5%	13.1%
Personal devaluation	13.8%	11.7%
Sabotaging	9.8%	11.3%
Reputational damage	8.6%	10.6%
Violence	6.9%	9.7%
Social exclusion	14.4%	7.2%
Arguing	6.9%	6.7%
Infidelity	3.4%	4.1%
Lying	6.3%	3.3%
Violating an agreement or promise	4.0%	3.3%

Note. $N = 1078$ (174 avengers, 904 non-avengers). Note that the N does not correspond with the total number of participants due to some participants reporting multiple offenses.

Table 2
Ratings of Severity of Offenses in All Conditions

	Avengers	Non-avengers	
	<i>M (SD)</i>	Once revenge <i>M (SD)</i>	Never revenge <i>M (SD)</i>
Participants	5.86 (1.35) _a	5.96 (1.34) _a	6.09 (1.21) _b
Raters	3.26 (0.84) _c	3.45 (1.08) _c	3.72 (1.08) _d

Note. $N = 918$ (139 avengers, 188 non-avengers who had taken revenge at least once, 591 non-avengers who had never taken revenge). Means with different subscripts differ significantly from each other, $p < .05$.

Table 3
Type of Offenders

	Avengers	Non-avengers
(Ex-)partner	11.5%	11.5%
Father/Mother	1.4%	2.4%
Child	0.0%	0.9%
Sibling	5.8%	3.3%
Other family member	4.3%	7.8%
A male or female friend	14.4%	5.9%
Boss	6.5%	11.5%
Coworker	17.3%	12.9%
Neighbor	7.9%	7.6%
Acquaintance (not a friend)	11.5%	6.7%
Stranger	7.2%	13.3%
Other	12.2%	16.1%

Note. $N = 921$ (139 avengers, 782 non-avengers).

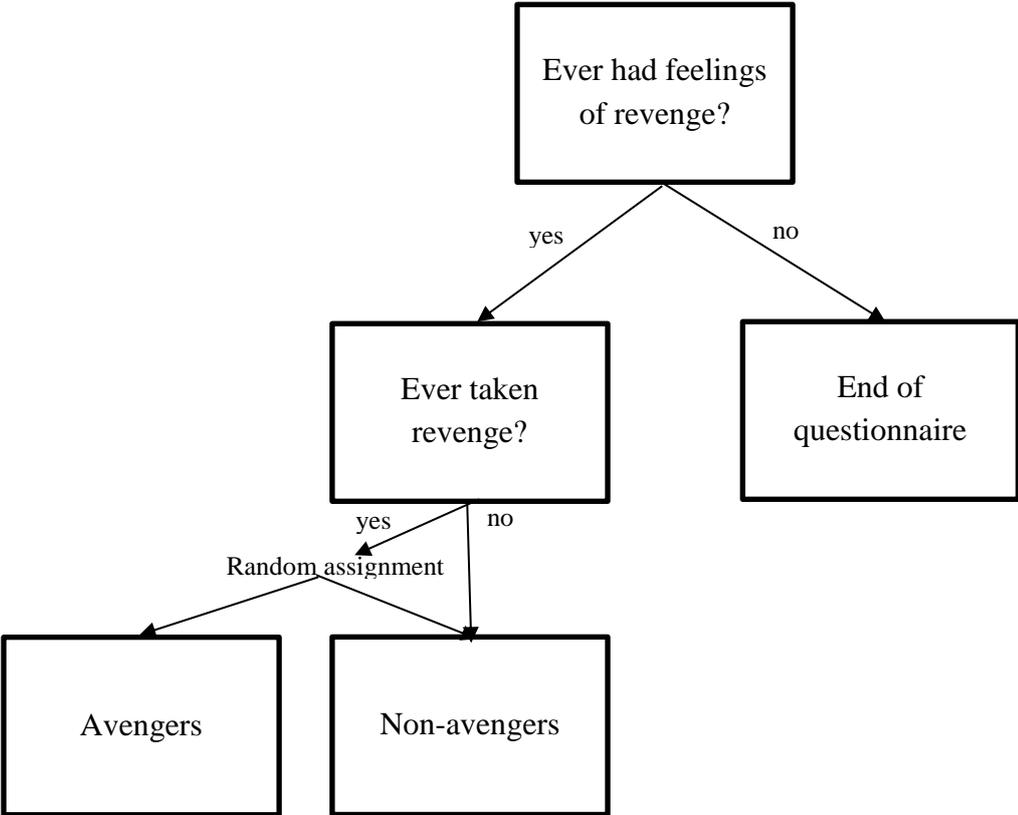


Figure 1
Graphical display of the design