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# Romantic revenge and the Dark Triad: A model of impellance and inhibition

Kyler R. Rasmussen\*, Susan D. Boon<sup>1</sup>

Department of Psychology, University of Calgary, 2500 University Dr. NW, Calgary, AB T2N 1N4, Canada

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## ABSTRACT

Based on I<sup>3</sup> theory, the present study investigated a model in which the Dark Triad of personality traits (Machiavellianism, narcissism, and psychopathy) influence the rated likelihood of engaging in revenge against a romantic partner. We presented participants with a hypothetical act of infidelity, hypothesizing that the Dark Triad would relate positively to factors that could impel revenge (perceptions of revenge effectiveness and endorsement of goals related to power and justice) and negatively to factors that could inhibit revenge (perceptions of revenge costliness and endorsement of goals related to relationship maintenance). Although the Dark Triad bore substantial indirect relationships to the rated likelihood of taking revenge through our postulated impelling factors, our hypothesized inhibiting factors did not substantially inhibit revenge. Implications of these findings are discussed.

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## 1. Introduction

Individuals in romantic relationships have the capacity to inflict interpersonal harm on their partners (Metts & Cupach, 2007) and those partners have the capacity to respond by inflicting harm in return (Boon, Alibhai, & Deveau, 2011). Although not always destructive, such vengeful behavior has the potential to harm individuals, relationships, and property (Fitness, 2001).

Recent research has examined the connection between broad personality traits and attitudes toward romantic revenge (Sheppard & Boon, 2011). The present study extends this research by examining the Dark Triad of narcissism, psychopathy, and Machiavellianism, which has emerged as an important set of traits for predicting destructive and anti-social behaviors including revenge (Nathanson, 2008). Although these traits appear to work together to encourage bad behavior, the specific processes through which they influence revenge, and romantic revenge in particular, remain unexplored.

I<sup>3</sup> (I-cubed) theory may help explain those mechanisms. This theory postulates that three main constructs—instigation, impellance, and inhibition—determine whether someone is likely to aggress (Finkel, 2007). The process begins with an *instigation*, an event that serves to provoke an aggressive response. Certain

factors, such as feelings of anger, may then *impel* an individual to aggress whereas other factors, such as love for or commitment to the offender, may *inhibit* aggression. A strong instigation, combined with strong impelling and weak inhibiting factors, can thus create a 'perfect storm' that renders the individual susceptible to behaving aggressively (Finkel et al., 2012). To the extent that impelling and/or inhibiting factors mediate the influence of the Dark Triad on romantic revenge, I<sup>3</sup> theory offers researchers new tools with which to predict the occurrence of revenge among intimates.

In the present study, we presented participants with a hypothetical instigation—a romantic partner's infidelity—and tested an I<sup>3</sup> model linking the Dark Triad to participant's ratings of the likelihood they would take revenge in that situation. Our model predicted that Dark Triad traits would both positively relate to factors that impel revenge and negatively relate to factors that inhibit revenge. The Dark Triad would thus help create the perfect storm mentioned above through strengthening impellance and weakening inhibition.

### 1.1. Goals and outcomes related to the Dark Triad

An individual's goals following a provocation may serve to either impel or inhibit revenge behavior. For instance, responding to a partner's injury or offense with revenge may cause harm to a relationship (Boon et al., 2011). Those wanting to preserve or repair their relationship might thus be inhibited from taking revenge for fear of the relational harm it may cause. On the other hand,

\* Corresponding author. Tel.: +1 403 805 7243.

E-mail addresses: [rasmussk@ucalgary.ca](mailto:rasmussk@ucalgary.ca) (K.R. Rasmussen), [sdboon@ucalgary.ca](mailto:sdboon@ucalgary.ca) (S.D. Boon).

<sup>1</sup> Tel.: +1 403 220 5564.

those seeking other outcomes—such as a restoration of justice or the balance of power—might feel impelled to get even as these outcomes are linked to revenge conceptually (Frijda, 1994) and are among the positive consequences of romantic revenge (Boon et al., 2011; Yoshimura, 2007).

In the present model, we posit that the Dark Triad may motivate people to seek particular kinds of goals. For instance, individuals high in Machiavellianism are oriented toward maintaining power over others (Paulhus & Williams, 2002) and are sensitive to justice concerns when they fall victim to unfair treatment (Schmitt, Gollwitzer, Maes, & Arbach, 2005). When provoked, we might thus expect individuals high in Machiavellianism to seek outcomes related to power and justice, such as maintaining dominance over a partner, making a partner suffer, or seeing a partner get what he or she deserves.

Narcissism, on the other hand, is defined by advancement of the self to the detriment of others (Miller, Widiger, & Campbell, 2010). Because goals related to restoring or repairing the relationship (hereafter labeled relationship-oriented goals), such as reconciling with a partner or working out a compromise, can be personally costly (Lewicki & Bunker, 1996) and because relationship-oriented goals are characterized by other-oriented feelings and behavior (Worthington, Witvliet, Pietrini, & Miller, 2007), narcissism may be negatively related to seeking relationship-oriented outcomes in the aftermath of a provocation. Accordingly, narcissism might serve to weaken a factor (i.e., the endorsement of relationship-oriented goals) that could inhibit revenge.

### 1.2. The Dark Triad and the perceived consequences of revenge

Perceptions of the effectiveness and the costliness of revenge as a means of responding to injury or offense may also serve to impel or inhibit revenge. Such perceptions may be tied in important ways to the consequences of revenge. For example, the more individuals believe revenge is likely to provide desired outcomes, the more they should perceive revenge as an effective response to provocation (Rasmussen, 2013). This perception may serve to impel an individual to take revenge even though revenge may not ultimately provide the desired outcomes (Boon et al., 2011). At the same time, revenge might also lead to undesired outcomes—or costs—that individuals may wish to avoid (e.g., social stigma, feelings of guilt and shame, loss of or damage to the relationship; see Boon et al., 2011, and Fitness, 2001). The more individuals associate revenge with such costs, the more they should perceive revenge as a costly response to provocation, which should inhibit them from taking revenge.

The present model contends that the Dark Triad may be tied to how individuals perceive revenge's consequences. In particular, psychopathy is characterized by an inability to accurately predict the consequences of one's actions, with a tendency to underestimate negative and to overestimate positive consequences (Ferrigan, Valentiner, & Berman, 2000). Accordingly, we would expect psychopathy to be negatively related to perceptions of revenge's negative consequences (i.e., its costliness) and positively related to perceptions of its positive consequences (i.e., its effectiveness).

### 1.3. The present study

Participants read a hypothetical scenario regarding an act of infidelity committed by a romantic partner and rated their endorsement of goals they might pursue following that provocation. They then rated how effective and costly they believed revenge would be as a response to the infidelity and the likelihood that they would take revenge. Based on the literature, we tested the following model connecting the Dark Triad to the

rated likelihood of taking revenge against a romantic partner (see Fig. 1):

**H1.** As Machiavellianism and psychopathy scores increase, the rated likelihood of taking revenge will increase through paths that involve increased impellance.

- (a) As Machiavellianism scores increase, the endorsement of power or justice related goals will increase.
- (b) In turn, the greater the endorsement of power and justice goals, the more revenge will be perceived as effective.
- (c) As psychopathy scores increase, revenge will be perceived as more effective.
- (d) As the endorsement of power and justice goals increases, individuals will rate themselves as more likely to take revenge.
- (e) As revenge is perceived as more effective, individuals will rate themselves as more likely to take revenge.

**H2.** As psychopathy and narcissism scores increase, the rated likelihood of taking revenge will increase through paths that involve weakened inhibition.

- (a) As narcissism scores increase, endorsement of relationship-oriented goals will decrease.
- (b) In turn, as endorsement of relationship-oriented goals decreases, revenge will be perceived as less costly.
- (c) As psychopathy scores increase, revenge will be perceived as less costly.
- (d) As the endorsement of relationship-oriented goals decreases, individuals will rate themselves as more likely to take revenge.
- (e) As revenge is perceived to be less costly, individuals will rate themselves as more likely to take revenge.

As our hypotheses reflect, our model postulates that the Dark Triad exerts its influence on the likelihood of revenge-taking indirectly through its effects on goal endorsement (i.e., people's inclinations to seek power and justice versus relationship-oriented goals in the aftermath of a provocation) and perceptions of revenge as effective and costly in attaining those goals. It is also possible, however, that the Dark Triad may affect the rated likelihood of revenge directly. We thus constructed a second model that included direct relationships between the Dark Triad traits and rated likelihood of revenge. We compared the results for this alternative model to the results of our proposed model to test our final hypothesis that:

**H3.** The fit of our hypothesized model will not be significantly improved by the addition of direct paths between Dark Triad traits and the rated likelihood of getting even.

By testing these models, we hoped to gain a greater understanding of the mechanisms that promote or discourage revenge-taking in romantic relationships. In particular, we sought to clarify the role the Dark Triad plays in predicting romantic revenge and whether that role is mediated by specific impelling and inhibiting factors.

## 2. Method

### 2.1. Participants and procedure

Psychology undergraduates ( $N = 199$ , 77 males, 122 females) at a large university in western Canada completed an online survey in

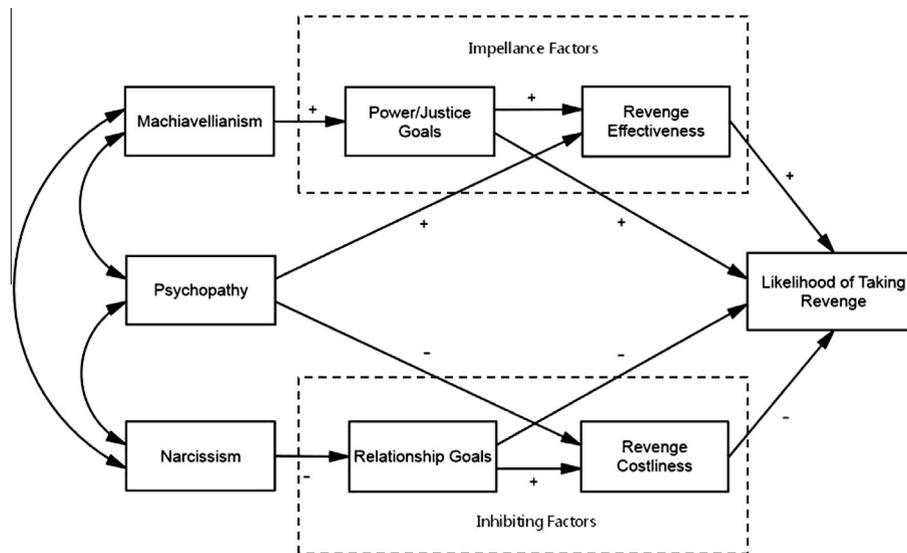


Fig. 1. Hypothesized model of the relationships between the Dark Triad and revenge likelihood.

**Table 1**  
Pattern matrix for the goal scale.

| Item                              | Factor        |              |
|-----------------------------------|---------------|--------------|
|                                   | Power/Justice | Relationship |
| Come to terms with a partner      | -.05          | .80          |
| Maintain the relationship         | -.02          | .72          |
| Mutual understanding              | -.11          | .80          |
| Work out compromise               | .05           | .79          |
| Engender constructive discussion  | -.02          | .73          |
| Clarify problem                   | .01           | .72          |
| Prompt resolution to the problem  | .05           | .41          |
| Punish partner                    | .81           | .002         |
| Hurt partner                      | .82           | .04          |
| Defeat partner                    | .80           | -.06         |
| Maintain dominance over partner   | .55           | .10          |
| Partner to get what they deserve  | .80           | -.14         |
| Suffer like I suffer              | .79           | -.08         |
| Feel what I feel                  | .67           | -.02         |
| Receive justice for what happened | .76           | .05          |

groups of up to 20 under supervised laboratory conditions. Participants received partial course credit. The questionnaire consisted of the vignette and measures described below, as well as other measures relating to revenge not discussed in this article.<sup>2</sup> Prior to analysis we removed the data for 19 participants who were not currently in a romantic relationship ( $n = 14$ ) or reported relationships with same-sex partners ( $n = 5$ ), seven multivariate outliers ( $p < .001$ ), and nine participants missing data on one or more variables. The majority of participants in the final sample ( $N = 165$ ; 102 female;  $M_{Age} = 20.81$  years,  $SD_{Age} = 3.62$ ) identified themselves as White/European Canadian (60%), with the remainder identifying as Chinese (13%), South Asian (12%), or other (15%).

## 2.2. Materials

### 2.2.1. Dark Triad

Participants completed the 27-item Short-D3 Scale (Paulhus & Williams, 2002) which contains three 9-item subscales measuring

<sup>2</sup> Among these was a failed experimental manipulation. Participants wrote for five minutes about their response to the provocation. One group wrote about how they would feel; a second group listed what they would do. No differences were found between these groups.

**Table 2**  
Descriptive statistics for variables in the model.

|                  | Mean (SD)   | Alpha |
|------------------|-------------|-------|
| Dark Triad       |             |       |
| Machiavellianism | 3.01 (.54)  | .71   |
| Narcissism       | 2.99 (.51)  | .72   |
| Psychopathy      | 2.15 (.54)  | .73   |
| Goals            |             |       |
| Relationship     | 4.28 (1.48) | .87   |
| Power/justice    | 3.43 (1.43) | .90   |
| Revenge          |             |       |
| Effectiveness    | 1.82 (1.07) |       |
| Costliness       | 3.70 (1.15) |       |
| Likelihood       | 2.78 (1.66) |       |

narcissism (“I like to be the center of attention”), Machiavellianism (“It’s not wise to tell your secrets”), and psychopathy (“I like to pick on losers”). Participants rated each item on a 5-point scale with endpoints 1 *strongly disagree* and 5 *strongly agree*. See Table 2 for Cronbach’s alphas for these scales.

### 2.2.2. Vignette

Participants read the following vignette, intended to provoke desires for revenge: “You have always loved your partner. That has never been a question throughout the three years that you have been together. Yet finding out that you have been cheated on is painful. The knowledge of it, that your partner has been seeing someone else off and on for the last six months, has hurt worse than you could have expected. There is only one question now: what is there to do?”.

### 2.2.3. Goals

We measured endorsement of goals related to power (4 items, e.g., “I would want to defeat my partner”), justice (4 items, e.g., “I would want justice for what happened”), and relationship maintenance (7 items, e.g., “I would want to come to terms with the other person”) with items adapted from Ohbuchi and Tedeschi’s (1997) social conflict goal scale. The justice goal items in the original scale assessed justice indirectly (e.g., referring to desiring an apology rather than desiring that justice be restored), so we replaced them with four items constructed to capture more directly the way scholars discuss justice in the revenge literature

**Table 3**  
Zero-order correlations among variables in the model.

|                       | 1                 | 2                 | 3                 | 4                 | 5                 | 6                 | 7                 |
|-----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1 Machiavellianism    | -                 |                   |                   |                   |                   |                   |                   |
| 2 Narcissism          | .17 <sup>†</sup>  | -                 |                   |                   |                   |                   |                   |
| 3 Psychopathy         | .52 <sup>**</sup> | .28 <sup>**</sup> | -                 |                   |                   |                   |                   |
| 4 Relationship goals  | -.10              | -.16 <sup>†</sup> | -.01              | -                 |                   |                   |                   |
| 5 Power/justice goals | .48 <sup>**</sup> | .22               | .30 <sup>**</sup> | -.25 <sup>*</sup> | -                 |                   |                   |
| 6 Costliness          | -.14              | -.14 <sup>†</sup> | -.23 <sup>†</sup> | .12               | -.14              | -                 |                   |
| 7 Effectiveness       | .47 <sup>**</sup> | .20 <sup>*</sup>  | .41 <sup>**</sup> | -.15 <sup>*</sup> | .67 <sup>**</sup> | -.22 <sup>*</sup> | -                 |
| 8 Likelihood          | .38 <sup>**</sup> | .19 <sup>*</sup>  | .33 <sup>**</sup> | -.27 <sup>*</sup> | .74 <sup>**</sup> | -.16 <sup>*</sup> | .73 <sup>**</sup> |

<sup>†</sup>  $p < .10$ .

<sup>\*</sup>  $p < .05$ .

<sup>\*\*</sup>  $p < .001$ , two-tailed.

(Frijda, 1994). Participants responded to each item using a 7-point scale with endpoints 1 *not at all strongly* and 7 *very strongly*.<sup>3</sup>

An exploratory Principal Components Analysis conducted on the data for the three subscales revealed two factors with eigenvalues greater than 1 that accounted for 56% of the variance. After oblique rotation, the seven relationship goal items loaded substantially on the first factor and all eight power and justice goal items loaded on the second. We calculated the average of the power and justice items to create a single power/justice goal index, and we did not weight these items in any way. See Table 1 for factor loadings and Table 2 for Cronbach's alphas.

#### 2.2.4. Perceptions of revenge effectiveness and costliness

Two items assessed judgments of the effectiveness ("How effective do you feel getting even would be?") and costliness ("If you chose to get even, how severe do you feel the negative consequences would be?") of revenge. Participants indicated their response to each item on a 5-point scale with endpoints 1 *not at all* and 5 *extremely*.

#### 2.2.5. Likelihood of taking revenge

Participants rated the likelihood that they would engage in revenge after discovering their partner's infidelity ("How likely would you be to get even somehow?"). They indicated their response using a 7-point scale with endpoints 1 *not at all* and 7 *extremely*.

### 3. Results

The goal of our analysis was to test our hypothesized model connecting the Dark Triad to the rated likelihood of taking revenge. We tested this model via path analysis using the AMOS 20 statistical program (Arbuckle, 1997) and maximum likelihood estimation. As part of this analysis, we also calculated indirect path coefficients (see Table 4) showing relationships between factors mediated by intervening variables in the model. In assessing model fit, we report the maximum likelihood chi-square, the comparative fit index (CFI; cut-off value  $> .95$ ), the root mean square error of approximation (RMSEA; cut-off value  $< .07$ ), and the standardized root mean square residual (SRMR; cut-off value  $< .08$ ). These indices are suited to small sample sizes ( $N < 200$ ; Kline, 2005). Table 2 reports descriptive statistics, Table 3 reports zero-order correlations between the variables in our model, and Table 4 and Fig. 2 report estimated path coefficients.

The hypothesized model fit the data well,  $\chi^2(15) = 22.10$ ,  $p = .10$ , CFI = .98, RMSEA = .06, SRMR = .07. However, the modification indices suggested that the error terms for the scales measuring

relationship goals and power/justice goals should be correlated (suggesting that these outcomes may, to a degree, be perceived as mutually exclusive), so we reran the analysis leaving that path free to vary. The fit of the modified model was excellent, CFI = .99, RMSEA = .02, SRMR = .05, maximum likelihood chi-square,  $\chi^2(14) = 15.10$ ,  $p = .37$ .<sup>4</sup>

The results provide strong support for H1. Consistent with H1a, the greater their scores on Machiavellianism, the more participants endorsed power and justice goals. In turn and as predicted in H1b, the more participants endorsed power and justice goals, the more they perceived revenge as effective. Perceptions of effectiveness also increased as psychopathy scores increased, supporting H1c. Finally, the more they endorsed power and justice goals and the more effective they perceived revenge, the more participants rated themselves as likely to take revenge, supporting H2d and H2e respectively. Additionally, as indicated by the indirect path coefficients relating both Machiavellianism and psychopathy scores to revenge likelihood ratings (see Table 4), both traits were indirectly related to likelihood of taking revenge through perceived effectiveness.

Several of the paths hypothesized in H2 were supported as well. Although the coefficient relating narcissism to relationship goals was weak, it was marginally significant and in the expected direction. As predicted by H2a, participants tended to endorse relationship goals less strongly the greater their narcissism scores. Consistent with H2c, participants also perceived revenge to be less costly the greater their psychopathy scores. In addition, as endorsement of relationship goals increased, individuals rated themselves as less likely take revenge, supporting H2d. On the other hand, H2b and H2e, which predicted significant relationships between the endorsement of relationship goals and the perceived costliness of revenge and between the perceived costliness of revenge and the rated likelihood of getting even, were not supported.

Importantly, however, the main premise of H2—that psychopathy and narcissism influence revenge through weakening factors that inhibit getting even—was only partially supported. As Table 4 shows, the indirect effects of narcissism on the perceived costliness of revenge and the rated likelihood of getting even are near zero, suggesting that, counter to our model, narcissism is not strongly related, if at all, to rated revenge likelihood via relationship goals or perceptions of revenge's costliness. This conclusion is reinforced by the fact that the path connecting costliness to the rated likelihood of revenge was nonsignificant.

Finally, we compared our hypothesized model with a model that included direct paths between the Dark Triad traits and rated likelihood of revenge. Consistent with H3, none of the direct paths (for Machiavellianism,  $B(SE) = -.25(.18)$ ,  $p = .16$ , psychopathy,  $B(SE) = .20(.18)$ ,  $p = .25$ , and narcissism,  $B(SE) = -.06(.16)$ ,  $p = .71$ ) attained significance and the fuller model did not fit better than our proposed model,  $\chi^2(3) = 2.39$ ,  $p = .50$ .

### 4. Discussion

#### 4.1. Implications

Our analysis tested a model that linked the Dark Triad and revenge through  $I^3$  processes, hypothesizing several specific relationships between Dark Triad traits and potential impelling and inhibiting factors. Among the more interesting of our results, we found that associations involving impelling factors were stronger than those involving inhibiting factors. For instance,

<sup>4</sup> Other associations may be justified conceptually, such as associations between narcissism and power/justice goals and between Machiavellianism and relationship goals. Allowing these paths to remain free did not produce significant path coefficients.

**Table 4**

Direct and indirect unstandardized regression coefficients and standard errors for paths in the final model.

|                         | M            | P           | N           | Power/Justice | Relationship Goals | Effectiveness | Costliness | R <sup>2</sup> |
|-------------------------|--------------|-------------|-------------|---------------|--------------------|---------------|------------|----------------|
| <i>Direct effects</i>   |              |             |             |               |                    |               |            |                |
| Power/justice goals     | 1.22** (.18) |             |             |               |                    |               |            | .17            |
| Relationship goals      |              |             | -.36† (.22) |               |                    |               |            | .01            |
| Effectiveness           |              | .44** (.11) |             | .45** (.04)   |                    |               |            | .47            |
| Costliness              |              | -.49† (.16) |             |               | .09 (.06)          |               |            | .07            |
| Likelihood              |              |             |             | .48** (.07)   | -.11* (.05)        | .67** (.10)   | .01 (.07)  | .65            |
| <i>Indirect effects</i> |              |             |             |               |                    |               |            |                |
| Effectiveness           | .55** (.10)  |             |             |               |                    |               |            |                |
| Costliness              |              |             | -.03 (.03)  |               |                    |               |            |                |
| Likelihood              | .98** (.16)  | .29** (.09) | .04† (.03)  | .30** (.05)   | .001 (.08)         |               |            |                |

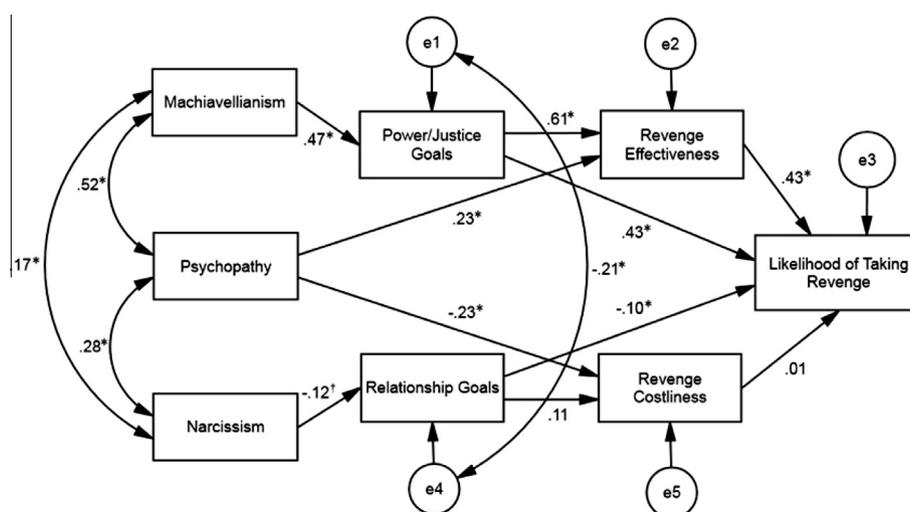
Note: Values in parentheses represent standard errors. Standard errors for indirect effects were bootstrapped using the bias-corrected percentile method, 5000 iterations.

M = Machiavellianism, P = psychopathy, N = narcissism.

†  $p < .10$ .

\*  $p < .05$ .

\*\*  $p < .001$ .



Note: †  $p < .10$ , \*  $p < .05$ .

**Fig. 2.** Final model with standardized regression coefficients.

Machiavellianism was strongly related to the endorsement of power and justice goals, goals that should impel revenge, whereas narcissism was weakly related to potentially inhibiting relationship-oriented goals. In addition, the perceived effectiveness of revenge had a relatively strong relationship with the rated likelihood of taking revenge, whereas revenge's perceived costs bore no relationship to that likelihood. In short, in the present hypothetical context and with the variables under examination here, the Dark Triad's association with revenge behavior was better explained through impellance factors than through inhibition factors.

It would nevertheless be premature to conclude on the basis of the present results that individuals cannot be inhibited from taking revenge through the factors examined in our model. The design of our study restricts our ability to make such claims because, for example, the costs associated with revenge may appear lower in magnitude and less objectionable when the episode under consideration is hypothetical. More research is needed to determine with confidence whether impellance truly exerts more power on decisions to take revenge than does inhibition. If it does, however, the present findings raise the intriguing possibility that those who wish to dissuade a potential avenger from retaliating against a romantic partner might be better served by removing factors that might impel revenge (e.g., convincing the would-be avenger that revenge will not meet their goals for restoring power or justice)

rather than emphasizing factors that inhibit it (e.g., pointing out the potential costs of repaying harm with harm).

Our findings for narcissism did not turn out fully as expected. As predicted, increasing narcissism was related to a diminished inclination to pursue relationship-oriented goals. However, this relationship was very weak, as was the relationship between relationship goals and the rated likelihood of revenge. Moreover, the indirect effect of narcissism on rated likelihood of revenge was marginal and very small. Perhaps if contexts can be found where the perceived costs of revenge or the desire to maintain the relationship more strongly inhibit getting even, narcissism might play a more important role in predicting revenge behavior than was observed here. Real life situations—where the costs of revenge are not hypothetical—may represent such a context. On the other hand, as revenge can be costly to the self as well as to others (Boon et al., 2011), these personal costs may counteract any negative relationship narcissism might otherwise have with factors that inhibit revenge.

Finally, our results suggest three separate pathways through which the Dark Triad may influence the likelihood of revenge-taking. In the first pathway, higher levels of Machiavellianism may elicit desires to seek outcomes related to power and justice. In turn, wanting power and justice may promote perceptions that revenge is an effective response to provocation. Perceptions of effectiveness may then increase the likelihood of taking revenge.

However, in a second pathway, we found that endorsement of power and justice goals was related to higher revenge likelihood ratings independent of perceptions of revenge effectiveness, suggesting that those who seek outcomes related to power and justice may be likely to take revenge regardless of their level of confidence in the effectiveness of revenge to achieve those outcomes. Finally, in the third pathway, higher levels of psychopathy may promote perceptions that revenge is effective which in turn may promote increased likelihood of revenge. Each of these processes linking the Dark Triad with romantic revenge could be targeted for further research.

#### 4.2. Limitations and future directions

There are several reasons to exercise caution in drawing conclusions from the present findings. First, our reliance on a hypothetical scenario may have decreased the magnitude of the associations along the inhibition relative to the impellance pathway, as, for example, the hypothetical nature of the provocation and the relationship in which it took place may have diminished participant's concerns with maintaining the relationship. Simultaneously, it may have been easier for participants to endorse power and justice goals in this hypothetical context than had they been considering their response to real partners and real events. A stronger test of our model may thus be possible with research designs that ask participants to recall actual acts of revenge they have committed in response to real provocations in their romantic relationships.

Second, the fact that our participants were North American university students limits the external validity of our study. It will be important to replicate our findings with participants in the broader community and from other cultures to determine whether they generalize to persons with experience in longer, more committed relationships, for example, or among those in cultures with different norms concerning vengeful behaviour between intimates.

We also used single items to assess perceived effectiveness, perceived costliness, and the rated likelihood of getting even and measured rather than manipulated perceptions of effectiveness and costliness. Future studies should make use of robust multi-item measures to better assess these constructs. Additionally, experimental designs that enable manipulation of effectiveness and costliness would permit tests of the causal relationships implied in our model.

Finally, evidence suggests that type of provocation may moderate the relationship between the Dark Triad and revenge (Nathanson, 2008). Researchers might thus wish to test our model with other kinds of provocations. For example, a provocation where a romantic partner transgressed in ways that reflected badly on the target's social standing (e.g., embarrassed them in public) may reveal a stronger (and significant) relationship between narcissism and the rated likelihood of taking revenge than observed here. Revenge may also be perceived as less effective a response to provocation in some contexts than in others and provocations may vary in the extent to which they elicit goals concerning power

and justice. Machiavellianism and psychopathy may be less predictive of revenge behaviour in such contexts.

Despite these limitations, we feel that our results represent an important contribution to the literature on revenge, helping to clarify the processes that may connect the Dark Triad with revenge behavior in a romantic context. The Dark Triad and the factors included in our model present themselves as fruitful ground for future research on romantic revenge given their potential to enhance our ability to predict whether and when intimates will repay harm with harm.

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