Too tempting to resist? Self-control moderates the relationship between narcissism and antisocial tendencies

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ARTICLE INFO

ABSTRACT

Previous research highlights that narcissism predicts a wide range of antisocial tendencies. We propose that the expression of such tendencies is contingent on the level of dispositional self-control. Three independent studies (N_{total} = 1458) using three different narcissism measures and self-reported as well as behavioral indicators of antisocial tendencies tested this moderation hypothesis. In Study 1, antagonistic narcissism was positively related to self-reported revenge following an interpersonal transgression and this relationship was weakened among individuals high (vs. low) in self-control. Studies 2 and 3 conceptually replicated this finding using different narcissism measures, respectively, and trait (Study 2) as well as behaviorally assessed aggression (Study 3) as outcome variables. Results support the moderating role of self-control in the antagonistic narcissism-antisociality link.

1. Introduction

Narcissism[1] is a puzzling construct, full of apparent paradoxes (Morf & Rhodewalt, 2001). One example of such a paradox is that narcissists are frequently perceived as charming, self-assured, and popular at first sight (Back et al., 2010). In the long run, however, these positive perceptions vanish and conflicts are likely to arise (Dufner et al., 2019; Leckelt et al., 2015). Typically, such conflicts arise in response to situations threatening narcissists' entitled self-image (Morf et al., 2011). Narcissists tend to be particularly susceptible to self-threatening information (Horvath & Morf, 2009) and, hence, may react in a vengeful and aggressive manner (Brown, 2004; Fatfouta et al., 2015; Fatfouta & Schröder-Abé, 2017). So far, psychological explanations of narcissists' malevolence used to focus primarily on *situational* characteristics, such as the type of provocation (i.e., ego-threat vs. no ego-threat) or the source of provocation (i.e., same vs. different as provocateur; for a meta-analysis, see Bettencourt et al., 2006). Moreover, previous empirical studies that looked at these characteristics viewed narcissism as a unidimensional construct and produced highly mixed results, with some studies finding significant effects of narcissism (Bushman & Baumeister,

1998; Reidy et al., 2010), while others failing to do so (Jones & Paulhus, 2010; Kirkpatrick et al., 2002, Study 1; Vaillancourt, 2013, Study 2). Moreover, the literature falls short of sufficiently examining *personality* characteristics that might modulate the relationship between narcissism and such antisocial tendencies. The theoretical and empirical contribution of this research is to address the following open question: Do high levels of narcissism, when combined with certain dispositions, may drive individuals to display less revenge and aggression?

1.1. The dual nature of Narcissism: Agentic and antagonistic narcissism

Grandiose narcissism is a personality trait, which can be broadly defined as entitled feelings of self-importance (Krizan & Herlache, 2018). Narcissism, while frequently studied as a homogenous construct (e.g., in the context of the Dark Triad; Paulhus & Williams, 2002; Trahair et al., 2020), has been demonstrated to consist of two qualitatively different facets, namely agentic narcissism (i.e., self-promotion used for gathering social potency) and antagonistic narcissism (i.e., self-protection used for diminishing social threats; Krizan & Herlache, 2018; Leckelt et al., 2019; Miller & Campbell, 2008; Miller et al., 2017).

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[1] Within the literature, there is an agreement that at least two, qualitatively distinct forms of narcissism co-exist, that is, grandiose and vulnerable narcissism (Wink, 1991). While the former involves self-enhancement, being arrogant, and having feelings of superiority, the latter involves self-doubt, being distrustful, and having feelings of fragility (Miller et al., 2017).

The disentanglement of these two facets not only allows for better understanding the role of narcissism within the broader models of personality (Back et al., 2013; Rogoza et al., 2019) but also helps resolving its many paradoxes and inconsistencies.

For example, narcissism has been shown to be related to both initial positive attitudes (e.g., being described as agreeable and well adjusted) and later changes in the opposite direction (e.g., being described as disagreeable and poorly adjusted; Paulhus & John, 1998). However, further research provided evidence that it is the agentic facet that leads to popularity through charming and self-assured interpersonal behaviors, especially in low-acquaintance contexts (Back et al., 2010; Leckelt et al., 2015). In contrast, the antagonistic facet leads to a broad range of interpersonal problems through combative and entitled interpersonal behaviors, especially in the long-term (Leckelt et al., 2019; Wurst et al., 2017). In other words, the agentic facet explains how narcissists attain social status, while the antagonistic facet explains why they are unable to maintain it (Grapsas et al., 2020). Therefore, examining the effects of agentic and antagonistic narcissism separately should lead to more conclusive and differentiated results than conflating them into a single score.

1.2. Antagonistic narcissism and antisocial tendencies

One domain in which the socially aversive consequences of narcissism (especially, its antagonistic facet) become particularly visible is provoked (i.e., reactive) aggression and revenge (for a meta-analysis, see Rasmussen, 2016). Aggression and revenge are related but distinct constructs. While the former involves angry and defensive responses to provocation or frustration (Crick & Dodge, 1996), the latter involves more goal-directed responses motivated by the desire to restore the moral balance (McCullough et al., 2013). Generally speaking, revenge can be considered as a destructive way to restore one's threatened self-image (Trumbull, 2008). Empirically, Fatfouta et al. (2015) showed that the antagonistic (but less so the agentic) narcissism facet predicts revenge following an interpersonal transgression (also see Fatfouta & Schröder-Abé, 2017). Similarly, Exline et al. (2004) provided evidence that the antagonistic (but less so the agentic) facet is associated with insistence on receiving some form of repayment such as retribution and restoration of justice before granting forgiveness. Similar results were obtained by Fatfouta et al. (2017) who showed that antagonistic (but less so agentic) narcissism was most consistently related to lack of forgiveness. Cumulatively, narcissism's relation to aggression/revenge appears to be mainly due to its socially toxic (i.e., antagonistic) facet.

Notably, the idea that narcissism is linked to antisocial tendencies is not new and has been well replicated in the literature (i.e., "threatened egotism"; Bushman & Baumeister, 1998; Reidy et al., 2010; Twenge & Campbell, 2003). What is missing from the literature, however, is a facet-specific examination of narcissism along with an investigation of specific trait characteristics that could potentially help – especially antagonistic – narcissists overcome such tendencies. Specifically, understanding how antagonistic narcissists' social malevolence could be mitigated would be of both theoretical and practical importance. Given the broad range of social consequences of the antagonistic narcissism facet (Leckelt et al., 2015; Miller et al., 2017; Rentzsch et al., 2021; Wurst et al., 2017), uncovering a potential antagonism-inhibiting disposition thus constitutes an important research goal. As we will argue below, existing research supports, at least indirectly, the possibility that individual differences in self-control might help attenuate antagonistic narcissists' socially aversive tendencies.

1.3. Trait self-control and antisocial tendencies

People differ in how successfully they can exercise self-control. According to Gottfredson and Hirschi's (1990) influential general theory of crime, for example, given the opportunity, people with low self-control tend to engage in deviant acts of all kinds, whereas people with high self-

control do not (also see DeLisi & Vaughn, 2014; Vazsonyi et al., 2017). The theory further posits that people with low self-control tend to be self-centered, indifferent to the suffering of others, and focused on immediate gratification. More broadly, trait self-control can be defined as the capacity to override or change one's own behavior regarding undesired behavioral tendencies, such as resisting temptations, reckless behaviors, or doing things for pleasure and fun (de Ridder et al., 2012; Tangney et al., 2004, p. 274). Moreover, trait self-control has been described as the ability to minimize (or, avoid) problematic impulses (Ent et al., 2015). Indeed, individuals high in trait self-control tend to display lower levels of antisocial behavior (DeWall et al., 2011; Stucke & Baumeister, 2006).

Of direct relevance to the present investigation, high trait self-control has been furthermore discussed as a "buffer" against socially maladaptive behaviors, such as aggressiveness or vengeful inclinations (Denson et al., 2012; Externbrink et al., 2019; Galić & Ružojčić, 2017; Lian et al., 2014; Restubog et al., 2015). The rationale here is that high (vs. low) self-control attenuates undesired behavioral tendencies, such that desires for revenge and feelings of anger are less likely to become expressed. For example, Finkel et al. (2009) showed that heightened self-control helps individuals override their violent impulses during interpersonal conflicts. Relatedly, self-control training has been discussed as a means to reduce anger-driven aggression (Denson, 2015; Denson et al., 2011). Hence, self-control constitutes a promising candidate as a revenge/aggression-reducing disposition of narcissists' antisocial tendencies. As we will argue below, however, the moderating role of self-control might depend on the facet of narcissism examined.

1.4. Antagonistic narcissism and the moderating role of self-control

Prior research alluded to the role of limited self-control in narcissism (Larson et al., 2015; Vaughn et al., 2007). Indeed, narcissism has been found to be negatively related to self-control, which explains some of the negative consequences of narcissism, such as aggressive and vengeful responses (Hart et al., 2017; Mowlaie et al., 2016; Rasmussen, 2016; Vazire & Funder, 2006). Importantly, facet-specific differences need to be considered. Similar to the results concerning antisocial tendencies, which are most robustly linked to antagonistic (but less so agentic) narcissism, narcissism's facets are also differentially related to self-control. More specifically, on the zero-order level, previous research revealed that the antagonistic facet is related to lack of self-control, while the agentic facet is not (Ackerman et al., 2011; Back et al., 2013; Rogoza et al., 2016).

From a trait (vs. situational) perspective, some narcissists who "suffer from a dispositional lack of self-control" (Vazire & Funder, 2006, p. 155) should have a higher tendency to display antisocial tendencies, whereas narcissists whose self-control is medium to high should have a lower tendency. Hence, even without specific situational demands (e.g., an immediate ego-threat), individuals high (vs. low) in antagonistic (but not agentic) narcissism may be at risk of being tempted away by their impulses. Given the past literature (cited above) that high trait self-control is known to mitigate the tendency to show antisocial tendencies, individuals high (vs. low) in antagonistic narcissism should particularly profit from this disposition. Evidently, this trait perspective differs from previous research in that it acknowledges the fact that the buffering effect of self-control should not be specific to ego-threats, but persist when no ego-threat is present (because it reflects a cross-situationally stable combination of high narcissism and high self-control). Consequently, individuals high (vs. low) in antagonistic narcissism and high (vs. low) in trait self-control should just be generally more successful in maintaining their self-regulatory resources (Ent et al., 2015). In other words, the combination of high antagonistic narcissism and high self-control may generally be more fruitful in resisting the urge to be vengeful (or, aggressive).

2. The present research: Overview and predictions

To test our central prediction that the negative impact of antagonistic narcissism is weaker when trait self-control is high, we conducted three independent studies using different narcissism measures, a primary study (Study 1) and two conceptual replication studies (Studies 2 and 3). In Study 1, we used a vignette-based approach and measured self-reported revenge as our outcome variable. In Study 2, we measured self-reported aggression as outcome variable. Finally, in Study 3, we used a behavioral approach and measured aggressive inclinations.

We chose to focus on revenge and aggression because both constitute socially aversive responses to conflict and wrongdoing (McCullough et al., 2013) and because both constructs have been studied extensively in the context of narcissism (for a meta-analysis, see Rasmussen, 2016). Based on the literature sketched above, we expected to replicate prior findings that especially the antagonistic facet of narcissism would be positively related to revenge/aggressive tendencies (*Hypothesis 1*). We also hypothesized that trait self-control would be negatively related to revenge/aggressive tendencies (*Hypothesis 2*). Finally, our main hypothesis was to find interaction effects of these variables, that is, better self-control ability should decrease the strength of the relationship between antagonistic narcissism and revenge/aggressive tendencies (*Hypothesis 3*). Data files (i.e., Open Data), scripts (i.e., Open Code), and materials (i.e., Open Material) for all studies have been uploaded to the Open Science Framework (OSF; https://osf.io/rnvst/?view_only=0a99 525c1b7a4923baa36e024a177e35).

3. Study 1: Self-control as a moderator between antagonistic narcissism and revenge

Study 1 served as a first attempt to examine whether self-control attenuates the association between (antagonistic) narcissism and antisocial tendencies. To this end, participants rated their narcissism and self-control levels. Then, participants read a short transgression vignette, followed by questions evaluating their level of revenge toward the transgressor.

3.1. Methods: Particpants and procedure, Power considerations

A total of 484 individuals were recruited via online social networks to participate in an online study (85.7% females, M_{age} = 24.54 years, SD_{age} = 5.76). Of the participants surveyed, the majority, that is, 96.3% (*n* = 466) had a high school diploma (*n* = 299) or a university degree (*n* = 167). After providing informed consent, participants completed the materials and measures described below. The study was administered in German using SosciSurvey, a professional online-survey platform (Leiner, 2019). As an incentive to participate, participants obtained an individualized personality feedback based on their narcissism levels.

In the absence of previous data to specify the effect size, we conducted a sensitivity power analysis using G*Power (Version 3.1.9.6; Faul et al., 2009). This allowed us to estimate the minimal effect size for the interaction between narcissism and self-control on revenge within our sample (*N* = 484, α = 0.05, power: 1- β = 0.80). The analysis revealed that our sample ensures sufficient power to detect even a small effect of f^2 = 0.016 for a third predictor (i.e., interaction, in addition to the two main effects).

3.2. Measures: Narcissism

Narcissism was measured using the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988; German adaptation: Schütz, Marcus, & Sellin, 2004). The NPI comprises 40 forced-choice items. For each pair of items, participants are requested to choose between a narcissistic option (e.g., "I expect a great deal from other people") and a non-narcissistic option (e.g., "I like to do things for other people"). Following Ackerman et al. (2011) three subscales were created:

Leadership/Authority (LA, 11 items; α = 0.71), Grandiose Exhibitionism (GE, 10 items, α = 0.67), and Entitlement/Exploitativeness (EE, 4 items, α = 0.41).[2] LA and GE capture agentic narcissism, whereas EE captures antagonistic narcissism (Ackerman et al., 2011; Hill & Roberts, 2012).

Self-Control. Self-control was measured using the Brief Self-Control Scale (BSCS; Tangney et al., 2004; German adaptation: Bertrams & Dickhäuser, 2009). The BSCS consists of 13 items that capture individual differences in self-control capacity (e.g., "I am good at resisting temptation", α = 0.83). Items were rated from 1 (*not at all like me*) to 5 (*very much like me*).

Transgression Vignette. Participants were requested to read a short vignette describing a friend having committed an interpersonal transgression and indicate the degree to which they are willing to retaliate against the transgressor. The transgression vignette was designed to contain an ego-threat and was taken from Allemand (2008, p. 1146): "Imagine yourself in the following situation. You are having lunch in a restaurant and you overhear several people, not realizing you are nearby, talking about you and laughing. You discover that a friend has intentionally told them about something you did back in your past that you are deeply ashamed of and did not want anyone to know about."

Revenge. Immediately following the transgression vignette, participants were asked to rate their revenge motivation toward the transgressor, which was measured using the 5-item revenge subscale of the Transgression-Related Interpersonal Motivation questionnaire (TRIM; McCullough et al., 1998; German adaptation: Werner & Appel, 2003). An example item: "I want to see him/her hurt and miserable" (α = 0.82). Items were rated from 1 (*not at all like me*) to 5 (*very much like me*).

4. Results and discussion

4.1. Descriptive statistics and zero-order correlations

Table 1 details descriptive statistics for all measures as well as their intercorrelations. Narcissism (especially its antagonistic facet) was significantly positively correlated with revenge. The strength of this relation was stronger for antagonistic (vs. agentic) narcissism ($Z_{EE\ vs.\ GE}$ = 2.45, *p* = .007, $Z_{EE\ vs.\ LA}$ = 2.47, *p* = .007). Furthermore, antagonistic narcissism (but not agentic narcissism) was significantly negatively correlated with self-control. Again, the strength of this relation was stronger for antagonistic (vs. agentic) narcissism ($Z_{EE\ vs.\ GE}$ = −2.37, *p* = .009, $Z_{EE\ vs.\ LA}$ = −4.23, *p* < .001). Revenge and self-control were significantly negatively correlated. Hence, H1 and H2 were fully supported.

4.2. Antagonistic narcissism and the moderating role of self-control

To test our main hypothesis that self-control attenuated the desire for revenge in antagonistic narcissism (H3), we conducted a series of multiple regression analyses for each narcissism facet separately. In these analyses, we regressed revenge on the respective narcissism facet, self-control, and their respective interactions. To increase interpretability of results, all variables were mean-centered and the interaction term was computed using the centered variables (Aiken et al., 1991). Given our theoretical rationale regarding a modulating effect of self-control in antagonistic (but not agentic) narcissism, results will focus on analyzing this particular facet (but see Table 2 for complete results).

We found a significant positive main effect of antagonistic narcissism, a significant negative main effect of self-control, and the predicted interaction between antagonistic narcissism and self-control (R^2 increase due to interaction: 0.87%). Simple-slope tests revealed the

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[2] The low estimate of internal consistency of the EE subscale is partially attributable to the forced-choice response format of the measure (Grosz et al., 2019). In addition, this estimate comports with the results reported in previous research (e.g., Ackerman et al., 2011).

Table 1

Zero-Order Correlations and Descriptive Statistics for all Measures in Study 1.

Measures	1	2	3	4	5	6
1. NPI (full score)	–					
2. Leadership/Authority	0.80* [0.76, 0.83]	–				
3. Grandiose Exhibitionism	0.68* [0.63, 0.73]	0.32* [0.24, 0.40]	–			
4. Entitlement/Exploitativeness	0.47* [0.40, 0.54]	0.28* [0.19, 0.36]	0.15* [0.06, 0.24]	–		
5. Self-control	0.05 [−0.04, 0.14]	0.08 [−0.01, 0.17]	−0.01 [−0.10, 0.08]	−0.15* [−0.23, −0.06]	–	
6. Revenge	0.25* [0.17, 0.33]	0.16* [0.07, 0.25]	0.15* [0.07, 0.24]	0.29* [0.21, 0.37]	−0.19* [−0.28, −0.11]	–
M	12.97	3.80	2.85	1.20	3.41	1.99
SD	5.87	2.45	2.14	1.09	0.84	0.79

* $p \leq 0.001$ (two-tailed)

Note. NPI = Narcissistic Personality Inventory. 95% Confidence Intervals for correlation coefficients are presented in brackets.

Table 2

Multiple Regression Analyses of Narcissism Facets and Self-Control Predicting Revenge in Study 1.

Outcome	Revenge										
	Leadership/Authority			Grandiose Exhibitionism				Entitlement/Exploitativeness			
Predictors	β	t	p	β	t	p	95% CI	β	t	p	95% CI
Narcissism facet (NPI)	0.06	3.96	<0.001	0.06	3.39	<0.001	0.02; 0.09	0.19	6.00	<0.001	0.13; 0.25
Self-control	−0.19	−4.70	<0.001	−0.18	−4.31	<0.001	−0.26: −0.10	−0.14	−3.54	<0.001	−0.22; −0.06
Narcissism facet x Self-control	−0.02	−1.29	0.197	−0.01	−0.66	0.507	−0.05; 0.02	−0.08	−2.17	0.030	−0.16; −0.01

Note. NPI = Narcissistic Personality Inventory.

following: As Fig. 1a illustrates, at medium levels of self-control, antagonistic narcissism (i.e., NPI Entitlement/Exploitativeness) was significantly positively related to revenge. Importantly, at low levels of self-control, this positive relationship was even stronger. Furthermore and, as expected, at high levels of self-control, the antagonistic narcissism/revenge link was attenuated. Thus, confirming H3, self-control weakened antagonistic narcissists' desire for revenge following an interpersonal transgression.

4.3. Study 2: Self-control as a moderator between antagonistic narcissism and aggression

Study 1 provided the first evidence that self-control attenuated antagonistic narcissists' revenge motivation. However, Study 1 was limited in several ways. First, it used a hypothetical transgression vignette. Despite the many advantages of vignette-based research (e.g., greater realism, reducing social-desirability bias, and flexibility; Wallander, 2009), it only offers insights about how individuals would behave in a very particular situation. Second, Study 1 leaves open the question of whether the antagonism-inhibiting role of self-control extends to more general (i.e., trait level) antisocial tendencies as well or whether it is specific to provoked aggression (i.e., imagining an ego threat). Third, the NPI as a measure of narcissism has attracted a considerable amount of criticism in recent years (e.g., regarding its factor structure and construct validity; Ackerman et al., 2016; Ackerman et al., 2011). Study 2 aimed to alleviate these concerns and to replicate the results from Study 1 by examining trait aggression as an outcome and a more elaborate narcissism measure. To this end, we reanalyzed a subset of data reported by Heinze et al. (2020). The current Study 2, however, addresses another research question and reports new results, which have not been published elsewhere.

5. Methods

5.1. Participants and procedure

Participants were 657 individuals (81% females, $M_{age} = 27.67$ years, $SD_{age} = 9.84$). Of the participants surveyed, the majority, that is, 90.10% ($n = 592$) had a high school diploma ($n = 400$) or a university degree (n

= 192). For more details on the sample, see Heinze et al. (2020).

5.2. Power considerations

As in Study 1, we conducted a sensitivity power analysis using G*Power (Version 3.1.9.6; Faul et al., 2009). Our sample ($N = 657$; α = 0.05; power: 1- β = 0.80) ensures sufficient power to detect even a small effect of $f^2 = 0.012$ for a third predictor (i.e., interaction, in addition to the two main effects).

5.3. Measures

Narcissism. Narcissism was measured using the Narcissistic Admiration and Rivalry Questionnaire (NARQ; Back et al., 2013). The NARQ comprises 18 items and is divided into two subscales: Narcissistic Admiration (9 items; e.g., "I enjoy my successes very much"; α = 0.85) captures agentic narcissism, whereas Narcissistic Rivalry (9 items; e.g., "I want my rivals to fail", α = 0.82) captures antagonistic narcissism. Items were rated from 1 *(do not agree at all)* to 6 *(agree completely)*.

Self-Control. As in Study, self-control was measured using the BSCS (Tangney et al., 2004). A mean score was computed for this instrument (α = 0.84).

Aggression. Aggression was measured using the Aggression Questionnaire (AQ; Buss & Perry, 1992; German adaptation: von Collani & Werner, 2005; α = 0.88). The AQ comprises 29 items and assesses an individual's global predisposition toward aggression. An example item: "If somebody hits me, I hit back". Items were rated from 1 *(extremely uncharacteristic of me)* to 5 *(extremely characteristic of me)*.[3]

6. Results and discussion

#### 6.1. Descriptive statistics and zero-order correlations

Table 3 details descriptive statistics for all measures as well as their

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[3] The AQ consists of four subscales: physical aggression, verbal aggression, anger, and hostility, which can be aggregated for a general aggression score or calculated separately. Given that we did not have specific hypotheses for the subscales, we focused on the composite aggression score.
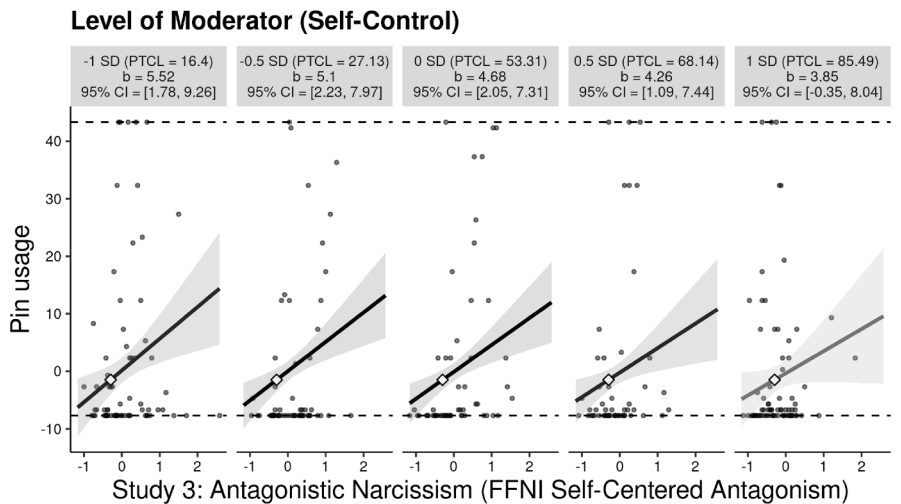
a)
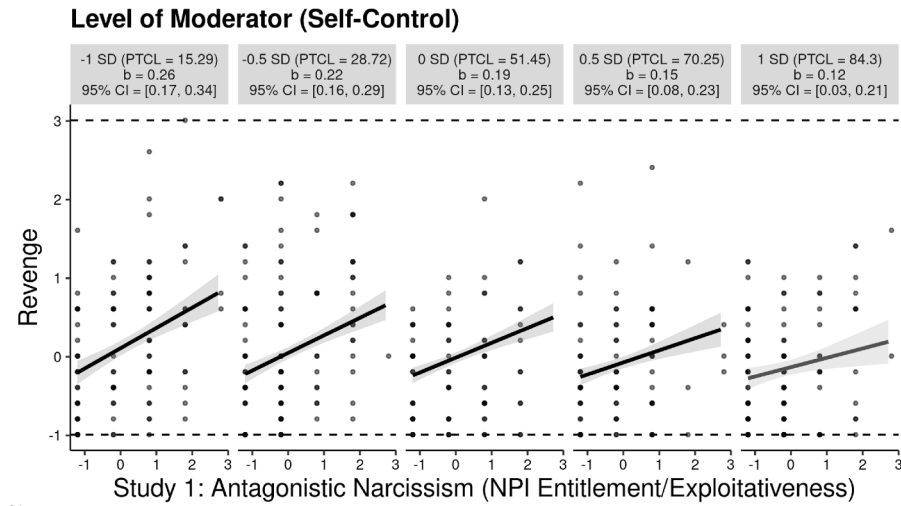
b)
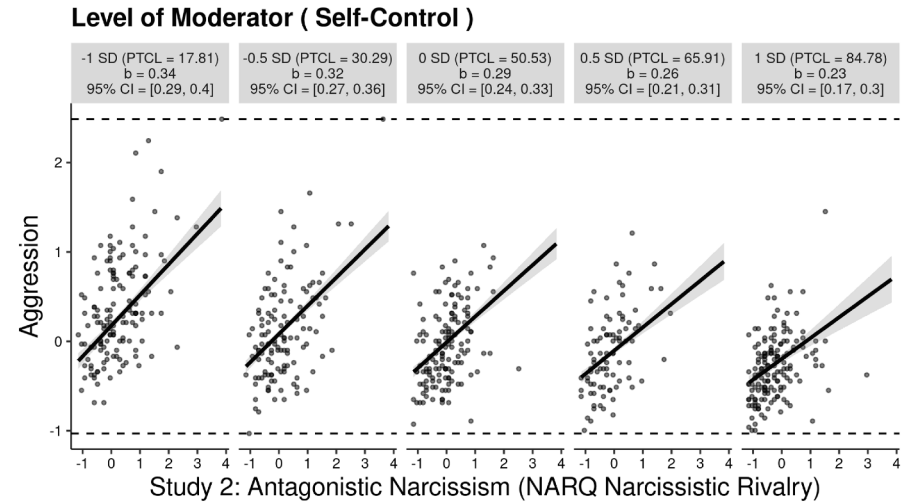
c)

Fig. 1. Interaction Effect Between Measures of Antagonistic Narcissism and Self-Control (Studies 1–3). *Note.* Figure produced using the InterActive data visualization tool (McCabe et al., 2018). Since we have a Poisson distribution involving count data in Study 3, the visualization in Fig. 1 c may not be fully adequate and, hence, is for illustration purposes only. NPI = Narcissistic Personality Inventory. NARQ = Narcissistic Admiration and Rivalry Questionnaire. FFNI = Five-Factor Narcissism Inventory. PTCL = percentile. CI = Confidence Interval.

Table 3

Zero-Order Correlations and Descriptive Statistics for all Measures in Study 2.

Measures	1	2	3	4
1. Narcissistic Admiration	–			
2. Narcissistic Rivalry	0.42* [0.35, 0.48]	–		
3. Self-Control	−0.01 [−0.08, 0.07]	−0.25* [−0.32, −0.18]	–	
4. Aggression	0.19* [0.11, 0.26]	0.51* [0.46, 0.57]	−0.46* [−0.52, −0.40]	–
M	2.89	2.15	3.03	2.23
SD	0.83	0.75	0.70	0.53

Note. * $p \leq 0.001$ (two-tailed). 95% Confidence Intervals for correlation coefficients are presented in brackets.

motivation in one specific situation to individual differences in general aggression. Both Studies 1 and 2, however, were limited to the extent that antisocial tendencies were measured via self-report. Given the "self-report/behavioral gap in aggression assessment" (Lobbestael, 2015, p. 2), it remains to be tested whether the antagonism-inhibiting role of self-control also translates into behavioral responses. Moreover, Studies 1 and 2 were limited to narcissistic grandiosity, thus making it difficult to evaluate the generalizability of the current results to narcissistic vulnerability. Study 3 addressed these potential concerns by using a behavioral method for assessing aggressive inclinations, employing yet another narcissism measure, and examining the mechanism in a different country, namely, Poland. We chose Poland because it represents another central European country with a different cultural background compared to Germany.

Table 4

Multiple Regression Analyses of Narcissism Facets and Self-Control Predicting Aggression in Study 2.

Outcome	Aggression							
	Narcissistic Admiration				Narcissistic Rivalry			
Predictors	β	t	p	95% CI	β	t	p	95% CI
Narcissism facet (NARQ)	0.12	5.47	<0.001	0.08; 0.16	0.29	12.79	<0.001	0.24; 0.33
Self-control	−0.35	−13.49	<0.001	−0.40; −0.30	−0.26	−11.08	<0.001	−0.31; −0.22
Narcissism facet × Self-control	−0.03	−1.17	0.241	−0.09; 0.02	−0.08	−2.72	0.007	−0.14; −0.02

Note. NARQ = Narcissistic Admiration and Rivalry Questionnaire

intercorrelations. Narcissism (especially its antagonistic facet) was significantly positively correlated with aggression. The strength of this relation was stronger for antagonistic (vs. agentic) narcissism ($Z_{\text{Narcissistic Rivalry vs. Admiration}} = -8.41$, $p < .001$). Furthermore, antagonistic narcissism (but not agentic narcissism) was significantly negatively correlated with self-control. Again, the strength of this relation was stronger for antagonistic (vs. agentic) narcissism ($Z_{\text{Narcissistic Rivalry vs. Admiration}} = -6.27$, $p < .001$). Aggression and self-control were significantly negatively correlated. Consistent with Study 1, H1 and H2 were fully supported.

6.2. Replication of the moderating effect of self-control

In line with Study 1, we conducted a series of multiple regression analyses for each narcissism facet separately. In these analyses, we regressed aggression on the respective narcissism facet, self-control, and their respective interactions. Given our theoretical rationale regarding a modulating effect of self-control in antagonistic (but not agentic) narcissism, results will focus on analyzing this particular facet (but see Table 4 for complete results).

Fully replicating the results of Study 1, we found a significant positive main effect of antagonistic narcissism, a significant negative main effect of self-control, and the predicted interaction between antagonistic narcissism and self-control (R^2 increase due to interaction: 0.69%). Simple-slope tests revealed the following: As Fig. 1b illustrates, at medium levels of self-control, antagonistic narcissism (i.e., NARQ Narcissistic Rivalry) was significantly positively related to aggression. Importantly, at low levels of self-control, this positive relationship was even stronger. Furthermore and, as expected, at high levels of self-control, the antagonistic narcissism/aggression link was attenuated. Thus, confirming H3, self-control weakened antagonistic narcissists' aggression.

6.3. Study 3: Self-control as a moderator between antagonistic narcissism and aggressive inclinations

Study 2 provided a conceptual replication of Study 1 using a different conceptualization of narcissism and extended the findings from revenge

7. Methods

7.1. Participants and procedure

A total of 317 individuals from Poland were recruited via online social networks to participate in an online study (72.6% females, $M_{\text{age}} = 30.1$ years, $SD_{\text{age}} = 10.4$ years). Of the participants surveyed, the majority of the sample (i.e., 97%; $n = 309$) had a high school diploma ($n = 122$) or university degree ($n = 187$). After providing informed consent, participants completed the materials and measures described below. The study was administered in Polish using Google Forms. As an incentive to participate, participants obtained PLN 2.5 (around US $0.60).

7.2. Power considerations

The sample size was based on practical constraints of funds available and allowed us to recruit approximately 300 participants. In line with Studies 1 and 2, a sensitivity analysis revealed that this sample size allowed us to detect a small effect of $f^2 = 0.020$ for a third predictor (i.e., interaction, in addition to the two main effects).

7.3. Measures

Narcissism. Narcissism was measured using the short form of the Five-Factor Narcissism Inventory (FFNI-SF; Sherman et al., 2015; Polish adaptation: Rogoza et al., 2020). The FFNI-SF is a comprehensive narcissism measure and consists of 60 items measuring three empirically derived facets of narcissistic personality that together allow for an optimal balance between specificity and parsimony (Crowe & Miller, 2017): narcissistic neuroticism (i.e., neurotic narcissism; e.g., "I feel ashamed when people judge me", α = 0.91), self-centered antagonism (i.e., antagonistic narcissism; e.g., "I feel enraged when people disrespect me", α = 0.91), and agentic extraversion (i.e., agentic narcissism; e.g., "I often fantasize about someday being famous", α = 0.90). One advantage of the FFNI over the NPI and the NARQ is that it captures both narcissistic grandiosity and narcissistic vulnerability. Neurotic narcissism relates primarily to vulnerable narcissism, agentic extraversion relates

primarily to grandiose narcissism, and antagonism relates to both dimensions (Crowe & Miller, 2017; Miller et al., 2013). Items were rated from 1 (*disagree strongly*) to 5 (*agree strongly*).

Self-Control. As in Studies 1 and 2, self-control was measured using the BSCS (Tangney, et al., 2004, α = 0.82). A mean score was computed for this instrument.

Aggressive Inclinations. Aggressive inclinations were measured using a new behavioral method, namely, the Voodoo Doll Task (VDT; DeWall et al., 2013). The VDT is a reliable, valid, and economic behavioral measure of inclinations toward provoked aggression. So far, it has been used across research settings (i.e., online vs. laboratory) and study contexts, including aggression against refugees (Dyduch-Hazar & Mrozinski, 2020), abusive supervisors (Liang et al., 2018), or romantic partners (Finkel et al., 2012). The rationale of the VDT is that individuals tend to project characteristics of another person onto symbolic representations of those persons (Rozin et al., 1986). Hence, inserting pins into a doll can be seen as a proxy for individuals' propensity to inflict harm on the person the doll is intended to symbolize (DeWall et al., 2013).

In the current study, participants were shown a picture of a doll that they were told represented a person who had hurt and injured them in the past. Participants were also told that they could release any negative energy they experienced toward the transgressor by virtually inserting "pins" into the doll (from 0 to 51 pins). The average number of pins inserted into the doll was 7.69 (*SD* = 14.05). Overall, 48.9% of participants did not insert any pins, 30.6% inserted 1 to 10 pins, and 20.5% inserted more than 10 pins. Because each response on the VDT represents a discrete event (i.e., a pin), we specified a Poisson distribution (also see DeWall et al., 2013). To address the large amount of zero count observations, we ran Hurdle regression models by using the R package pscl (Jackman, 2010).

8. Results and discussion

8.1. Descriptive statistics and zero-order correlations

Table 5 details descriptive statistics for all measures as well as their intercorrelations. As in Studies 1 and 2, narcissism (especially its antagonistic facet) was significantly positively correlated with aggressive inclinations. The strength of this relation, however, was no different from agentic and neurotic narcissism facets ($Z_{\text{Self-centered Antagonism vs. Narcissistic Neuroticism}} = 0.89, p = .187$, $Z_{\text{Self-centered Antagonism vs. Agentic Extraversion}} = 1.57, p = .058$). Moreover, antagonistic narcissism (but not agentic narcissism) was significantly negatively correlated with self-

control. The strength of this relation was no different from neurotic narcissism, but slightly stronger as compared to agentic narcissism ($Z_{\text{Self-centered Antagonism vs. Narcissistic Neuroticism}} = 1.17, p = .122$, $Z_{\text{Self-centered Antagonism vs. Agentic Extraversion}} = -1.92, p = .028$). Aggressive inclinations and self-control were negatively, but not significantly correlated. Hence, H1 and H2 were partially supported.

8.2. Further replication of the moderating effect of self-control

To test our main hypothesis that self-control attenuated aggressive inclinations in antagonistic narcissism (H3), we conducted a series of Hurdle regression analyses (Mullahy, 1986) predicting pin insertion for each narcissism facet separately. In these analyses, we regressed aggressive inclinations (i.e., pin usage) on the respective narcissism facet and self-control. Hurdle regression combines two component models: a truncated count component model is employed for a number of pins larger than zero (with Poisson distribution), and a hurdle component model for zero versus a larger number of pins (with binomial distribution). Because we were interested in the association between narcissism, self-control, and aggressive inclinations (in terms of the number of pins inserted), we will report results from the count model in the following. Following the recommendations of Cameron and Windmeijer (1997), we use the Kullback-Leibler deviance-based R^2-measure for nonlinear regression models. Again, all variables were mean-centered and the interaction term was computed using the centered variables. Given our theoretical rationale regarding a modulating effect of self-control in antagonistic (but not agentic) narcissism, results will focus on analyzing this particular facet (but see Table 6 for complete results).

The results were fully in line with our previous studies. We found a significant positive main effect of antagonistic narcissism and a significant negative main effect of self-control. The predicted interaction between antagonistic narcissism and self-control was also significant (R^2 increase due to interaction: 0.41%). Simple slopes are displayed in Fig. 1c. At low levels of self-control, the positive relationship between antagonistic narcissism and aggressive inclinations was particularly strong, but at high levels of self-control, the association was weaker. These results replicate, with new measures in a new sample, the moderating role of self-control. Thus, H3 was again supported.

9. General discussion

Prior work has convincingly linked the antagonistic narcissism facet with antisocial tendencies (Grapsas et al., 2020; Leckelt et al., 2019; Wurst et al., 2017), yet failed to provide sufficient insight into the boundary conditions of such tendencies from a trait perspective. Our studies aimed to close this gap and confirmed the importance of trait self-control as an antagonism-inhibiting factor. In support of our moderation hypothesis, our results consistently show that the link between antagonistic narcissism and vengeful (Study 1) and aggressive (Studies 2 and 3) tendencies was weaker among individuals high (vs. low) in trait self-control.

Across all three studies, the results demonstrate that the relationship between narcissism and antisocial tendencies is not as straightforward as one might think it could be. Specifically, we identified that the general ability to exert self-control by regulating one's own impulses curbed antisocial tendencies in antagonistic (but not agentic) narcissists. While antagonistic narcissism is considered to be responsible for most of its maladaptive outcomes (Back et al., 2013; Krizan & Herlache, 2018), it seems that in conjunction with self-regulatory resources, these effects might be, at least partially, diminished. As a result, antagonistic narcissists who are high in self-control might show adaptive functioning in the face of interpersonal transgressions, while those who are low on this trait might be at risk for interpersonal difficulties (e.g., dysfunctional social relationships). These results cohere with prior research on intimate partner violence (Finkel et al., 2009), counterproductive work

Table 5
Zero-Order Correlations and Descriptive Statistics for all Measures in Study 3.

Measures	1	2	3	4	5
1. Narcissistic Neuroticism					
2. Self-Centered Antagonism	−0.02 [−0.13, 0.09]				
3. Agentic Extraversion	−0.05 [−0.16, 0.06]	0.47** [0.38, 0.55]			
4. Self-control	−0.28** [−0.38, −0.18]	−0.19** [−0.29, −0.08]	−0.08 [−0.19, 0.03]		
5. Voodoo Doll Task	0.13* [0.02, 0.24]	0.20** [0.10, 0.31]	0.11 [−0.00, 0.22]	−0.05 [−0.16, 0.06]	–
M	3.35	2.25	2.76	2.87	7.69
SD	0.91	0.59	0.71	0.68	14.05

*p ≤ 0.05, ** p ≤ 0.001 (two-tailed)
Note. The Voodoo Doll Task uses the number of inserted pins as dependent variable. 95% Confidence Intervals for correlation coefficients are presented in brackets

Table 6

Hurdle (Poisson) Regression Analyses of Narcissism Facets and Self-Control Predicting Aggressive Inclinations in Study 3.

Outcome	Pin usage											
	Narcissistic Neuroticism				Self-Centered Antagonism				Agentic Extraversion			
Predictor	B	SE	p	95% CI	B	SE	p	95% CI	B	SE	p	95% CI
Narcissism facet (FFNI)	0.08	0.02	0.001	[0.03, 0.12]	0.31	0.03	<0.001	[0.24, 0.38]	0.24	0.03	<0.001	[0.18, 0.29]
Self-control	−0.16	0.03	<0.001	[−0.22, −0.10]	−0.15	0.03	<0.001	[−0.20, −0.09]	−0.17	0.03	<0.001	[−0.23, −0.11]
Narcissism facet × self-control	0.00	0.03	0.97	[−0.06, 0.06]	−0.18	0.05	<0.001	[−0.28, −0.07]	0.03	0.04	0.48	[−0.05, 0.12]

Note. FFNI = Five-Factor Narcissism Inventory

behavior (Galić & Ružojčić, 2017), and coping with stress (Externbrink et al., 2019).

The present studies have potentially relevant implications. Although self-control is considered to be a stable personality trait (Tangney et al., 2004), meta-analytical research highlights the possibility that self-control may be trainable (Friese et al., 2017; Hagger et al., 2010). In line with this view, repeated practice through self-control trainings might help antagonistic narcissists dealing with conflicts they oftentimes tend to engage in (Leckelt et al., 2015; Wurst et al., 2017). Indeed, the application of self-control training already demonstrated its utility for diverse domains (Berkman, 2016), including the reduction of retaliation tendencies (Denson et al., 2011). Yet, it remains to be seen whether and to what extent targeted interventions aimed at improving self-control in antagonistic narcissism will be fruitful.

9.1. Limitations, future directions, and strengths

Our results should be viewed in light of the study's limitations. First, while the present studies performed a thorough, multifaceted examination of narcissism, it might be worthwhile to further evaluate the results' generalizability to other forms of narcissism, such as collective narcissism (i.e., grandiose self-thoughts related to one's in-group potency; Golec De Zavala et al., 2009) or communal narcissism (i.e., grandiose self-thoughts related to the communal domain; Gebauer et al., 2012). Relatedly, aggression is a broad, multifaceted construct with a wide variety of theories and conceptualizations beyond those examined here. Future research would benefit from examining the results' generalizability to different forms of aggression (esp. reactive, proactive, and relational aggression; e.g., Miller et al., 2012). More broadly, the contextualization of our results within traditional personality models is strongly recommended for future studies, because variants of narcissism can be viewed as different configurations of the five-factor model of personality (e.g., Rogoza et al., 2019).

Second, and consistent with previous research in this field, we measured self-control via self-report. Importantly, previous studies have shown that self-control capacity can be experimentally manipulated, such that individuals who initially invest self-control in dealing with a self-control demanding task subsequently lack these resources in another task (i.e., ego-depletion effect; Baumeister et al., 1998). Admittedly, it would be interesting to see whether the moderating effect of self-control also replicates using a self-control manipulation that precedes the assessment of revenge and/or aggression. However, it should be noted that experimental studies on ego-depletion effects are under active debate due to a lack of replicable findings (Carter et al., 2015; Hagger et al., 2016).

Third, we focused on self-control as a trait as opposed to a process. Hence, our cross-sectional design precludes the possibility to examine what exactly antagonistic narcissists high in self-control do to overcome their vengeful and aggressive impulses. Specifically, we do not know whether self-control serves as a "buffer" against the surfacing of aggressive impulses (e.g., vengeance) or serves as a buffer once these impulses are activated. One possibility is that antagonistic narcissists high (vs. low) in self-control use reappraisal to cognitively regulate their vengeful and aggressive cognitions when faced with a transgression (e.

g., by reinterpreting it a in a less hostile way). Consistent with this, it has been shown that reappraisal is an effective way of reducing aggression (Anderson & Bushman, 2002; Wilkowski & Robinson, 2008). Future experimental work is warranted to further explore whether reappraisal (or, other emotion-regulation) techniques mediate the moderated antagonistic narcissism—revenge/aggression association.

Fourth, some readers may be concerned that responses on the VDT do not mirror actual (i.e., behavioral) aggression, because there is no intent to harm and the participant knows that no one can possibly be harmed. Yet, pin usage was shown to converge with behavioral indicators of aggression, such as insulting someone during a problem-solving task, showing aggressive tendencies during a conflict discussion task, or aggression in a competitive reaction-time task (a classic in lab-based aggression paradigm; DeWall et al., 2013).

Finally, it should be acknowledged that the interaction terms, albeit significant and reproducible, were rather modest in size. This is typical of moderator effect sizes in personality research, which tend to be small (Chaplin, 1991). In our view, however, the effects are theoretically meaningful, because they show how the combination of different personality traits may foster antisocial tendencies. Further research involving non-student samples (e.g., criminal/juvenile offenders) might also shed light on the ecological validity of the proposed buffering effects we observed in the current studies. Replicating the current results in such samples would further attest to the crucial role played by self-control (e.g., by minimizing criminal or deviant acts in individuals high in antagonistic narcissism).

The present research also has notable strengths, three of which we would like to highlight here. First, the present studies acknowledged the multifaceted nature of narcissism by scrutinizing its distinct facets. Across three conceptually distinct narcissism measures, we were able to show that the proposed moderation by trait self-control is unique to the antagonistic narcissism facet – a finding that might have otherwise gone unnoticed if a unidimensional conceptualization of narcissism had been used. Second, our studies were methodologically diverse in terms of operationalizations of narcissism, subjective (self-report) and objective (behavioral) assessments of antisocial tendencies, and samples (German and Polish). Third, despite the fact that different aspects varied across studies, the results were remarkably robust. That the antagonism-inhibiting role of self-control replicated across studies, clearly demonstrates the robustness of the proposed interaction effects against different narcissism measures and operationalizations of aggressive tendencies.

9.2. Conclusion

Antagonistic narcissism represents the socially toxic component of narcissism and is strongly linked to a host of antisocial tendencies, including revenge and aggression. Yet, previous research has not uncovered the circumstances under which this link is more versus less pronounced. The present three studies showed that self-control functions as a moderator of the link between antagonistic narcissism and antisocial tendencies, with revenge motivation and aggressive inclinations being lowest when self-control is high than when it is low. We hope that the identified antagonism-inhibiting role of self-control helps

clarify the complex relationships between narcissism, self-control, and antisocial tendencies and stimulates further research on this fascinating topic.

Author contributions

Conceptualization (RF, RR), Data curation (PPB), Formal analysis (RF, KR), Methodology (RF, RR), Project administration (RF), Visualization (RF), Writing – original draft (RR, PPB), Writing – review & editing (RF, RR, KR).

Data availability statement

The study was not preregistered. The datasets generated during and/or analyzed during the current study are available at: https://osf.io/rnvst/?view_only=0a99525c1b7a4923baa36e024a177e35.

Funding

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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