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## Relations of Proactive and Reactive Dimensions of Aggression to Overt and Covert Narcissism in Nonclinical Adolescents

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### Abstract

In recent years, there has been increasing acknowledgement of the multidimensionality of narcissism and that different types of narcissism may relate differently to other domains of functioning. Similarly, aggression—a frequently discussed correlate of narcissism—is a heterogeneous construct. In the present study, the relations of proactive and reactive aggression with overt and covert manifestations of narcissism were examined in a sample of 674 Italian high school students (mean age = 15.5 years, *SD* = 2.1 years). Overt narcissism was positively related to both proactive and reactive subtypes of aggression, whereas covert narcissism related only to reactive aggression. Vanity, Authority, Exhibitionism, and Exploitativeness were the components of overt narcissism related to Proactive Aggression (all remained unique correlates when controlling for Reactive Aggression), whereas Reactive Aggression was associated with the Exhibitionism, Superiority, and Entitlement subscales (only the latter was uniquely related when controlling for Proactive Aggression).

### Keywords

Covert narcissism; Overt narcissism; aggression subtypes

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In recent years, there has been an increasing focus on the multidimensionality of narcissism. For example, Wink (1991) argued that two underlying factors, namely, overt and covert narcissism, exist within this personality construct. The first subtype is characterized by the direct expression of exhibitionism, self-importance, and preoccupation with receiving admiration from others (Wink, 1996). In contrast, covertly narcissistic individuals appear to be hypersensitive, anxious and insecure, but with personal relationships characterized by self-indulgence, conceit, and arrogance. Interestingly, Exploitativeness and Sense of Entitlement seem to represent a psychopathological core that is common both to overt and covert subtypes of pathological narcissism (Wink, 1996). Although both subtypes of narcissism are associated with various forms of maladjustment, overt narcissism seems to be more interpersonally disruptive. For example, overt narcissists have been described by their partners as “bossy,” “intolerant,” and “cruel” (Wink, 1991; p. 596).

Recently, Lapsley and Aalsma (2006) found that overt and covert subtypes of narcissism are evident in adolescence and both were associated with a pervasive pattern of dysfunction. However, they also identified adolescents with “healthy” narcissism involving relatively low

levels of anxiety, relationship problems, depression, and self-esteem and family problems, and argued that it may serve an adaptive function as the adolescent wrestles with the twin demands of assertion and connectedness (Lapsley & Aalsma, 2006).

Overt narcissism has been linked to aggression in response to an external threat to one's self-esteem (Martinez, Zeichner, Reidy & Miller, 2008). Extending these findings, Barry and colleagues (2007) reported that in moderately to highly aggressive children, overt narcissism predicted both proactive (i.e. unprovoked) and reactive types of aggression. Similarly, Bushman and Baumeister (1998) found in Study 1 that the Narcissistic Personality Inventory was positively and significantly correlated with aggression even in the positive feedback condition, suggesting that narcissists may perpetrate unprovoked aggression. Although data on this topic are few and equivocal, current evidence seems to suggest that overt narcissism may be linked to both reactive and unprovoked aggression. To our knowledge, there currently are no data available pertaining to relations between covert narcissism and subtypes of aggression.

As already noted, the construct of aggression is not homogeneous and different taxonomies of aggression currently exist (Parrott & Giancola, 2007). Many individuals display more than one type of aggression (Barker, Tremblay, Nagin, Vitaro, & Lacourse, 2006; Bushman & Anderson, 2001) and correlations often exist among subtypes of aggression (Kempes, Matthys, Maassen, Van Goozen, & Engeland, 2006). Nonetheless, aggressive behaviors may be defined primarily as being reactive or proactive (Dodge, 1991; Meloy, 1988; Mirsky & Siegel, 1994). Several researchers have suggested that individuals displaying reactive aggression may be differentiated from individuals displaying proactive aggression on measures of personality and psychopathology, as well as in histories of aggression, and type and severity of aggressive behaviors committed (Nouvion, Cherek, Lane, Tcheremissine, & Liewing, 2007). However, there has been a dearth of studies on the relations of these aggression subtypes to overt and covert manifestations of narcissism, particularly in adolescence.

In addition, overt narcissism itself can be considered a multidimensional construct (Raskin & Hall, 1979; Raskin & Terry, 1988). In particular, Raskin and Terry (1988) proposed that there are seven sub-dimensions within the domain of overt narcissism, which they called Authority, Self-sufficiency, Entitlement, Exploitativeness, Vanity, Exhibitionism, and Superiority. Recently, Reidy, Zeichner, Foster, and Martinez (2008) found that two of these sub-dimensions were relevant for predicting aggression, namely, Entitlement and Exploitativeness.

Thus, based on the aforementioned literature, the goal of the present study was to examine whether overt and covert subtypes of narcissism are differentially related to proactive and reactive aggression. In particular, based on Barry and colleagues' (2007) findings, proactive aggression was expected to be positively associated with overt narcissism. There are, to our knowledge, no published data on covert narcissism and aggression. However, Reidy, Zeichner, Foster, and Martinez (2008) found that a sense of entitlement and exploitation – two personality features that are central to both overt and covert manifestations of narcissism (Wink, 1996) – predicted a tendency to initiate aggression in an explosive manner. Because reactive aggression tends to be emotionally driven and impulsive, these findings led us to hypothesize that reactive aggression would be related to both overt and covert subtypes of narcissistic personality. Moreover, because of the dearth of studies on the relations between sub-dimensions of overt narcissism and aggression subtypes, we examined if different sub-dimensions of overt narcissism were differentially related to proactive and reactive aggression.

Finally, prior studies have sometimes included only men (e.g., Martinez *et al.*, 2008; Reidy *et al.*, 2008) rather than both men and women. These sampling differences could explain, at least in part, some inconsistent findings regarding the relations between narcissism and aggression. For instance, the relation between aggression and narcissism has been found in samples of males (e.g., Martinez *et al.*, 2008), but was not reported among female participants (Bushman & Baumeister, 1998). However, Barry and colleagues (Barry *et al.*, 2007) did not find that sex moderated the relation between aggression and narcissism. Based on these contrasting findings, we examined the moderating role of participants' sex in the relation between narcissism and aggression but were unsure what to predict.

## Method

### Participants

The participants were 674 Italian high school students; 343 (50.9%) were female and 331 (49.1%) were male. The mean age was 15.5 years ( $SD = 2.05$  years). All participants signed a written informed consent form in which the study was described in detail and informed consent was obtained from a parent for minors.

### Procedures

The questionnaires were administered and scored anonymously during class time by graduate students when teachers were not present in the class. Participants had approximately 60 minutes to complete the questionnaires. The questionnaires were administered in random order.

### Measures

Measures of aggression, overt narcissism, and covert narcissism were administered. All participants were administered the Italian translations of the instruments, which had been translated by the first two authors and two additional psychologists who were fluent in English. The adequacy of the translated Italian versions was iteratively controlled through back-versions by an English mother-tongue professional translator.

**Reactive-Proactive Questionnaire (RPQ)**—Recently Raine and colleagues (2006) developed the RPQ, a 23-item, Likert-type self-report questionnaire (rated 0 = *never*; 1 = *sometimes*; 2 = *often*) designed to assess both Reactive (11 items; e.g., “damaged things because you felt mad”) and Proactive (12 items; e.g., “had fights to show who was on top”) Aggression. In the original validity study, all item-total correlations were greater than .40, Cronbach  $\alpha$  exceeded .80 for both subscales, and confirmatory factor analyses supported the two-factor structure of the RPQ. In addition, Fossati *et al.* (2009), in a study of 3,666 participants, obtained support for the reliability, factor structure, and validity of the Italian version of the RPQ. In the present sample, the  $\alpha$  values were .75 for both Proactive and Reactive Aggression scales.

**Narcissism measures**—Overt narcissism was assessed with the 40-item revised form of the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), which is a true-false scale created through factor analysis. The 40 items are summed; higher scores indicate higher levels of overt (i.e., grandiose) narcissism. Although it is a controversial finding (del Rosario & White, 2005), the NPI yields also seven subscales: Authority (e.g., “I have a natural talent for influencing people”), Exhibitionism (e.g., “I will usually show off if I get the chance”), Superiority (e.g., “I am an extraordinary person”), Entitlement (e.g., “I will never be satisfied until I get all that I deserve”), Exploitativeness (e.g., “I find it easy to manipulate people”), Self-Sufficiency (e.g., “I like to take responsibility for making decisions”), and Vanity (e.g., “I like to show off my body”) (Raskin & Terry, 1988). In the

present study, the Cronbach  $\alpha$  was .81 for the NPI total score, whereas the Cronbach  $\alpha$  values for the seven subscales ranged from .50 (Superiority) to .68 (Authority), with an average value of .56,  $SD = .08$ . Although these  $\alpha$  values were low, the NPI subscales include only three (Vanity) to eight (Authority) items, and the number of items affects the likelihood of obtaining a high alpha. Moreover, the  $\alpha$  values found in the present study for the NPI subscales were very consistent with those previously reported (Raskin & Terry, 1988; del Rosario & White, 2005).

The Hypersensitive Narcissism Scale (HSNS; Hendin & Cheek, 1997) is a 10-item, Likert-type self-report questionnaire that was explicitly designed to assess dimensions of hypersensitive-- that is, covert--narcissism. Each HSNS item is scored on a five-point ordinal scale (1 = *very uncharacteristic or untrue; strongly disagree*; 5 = *very characteristic or true; strongly agree*). In their original study, Hendin and Cheek (1997) reported adequate internal consistency reliability for the HSNS composite score, as well as evidence of the criterion-related validity of the scale, with adult nonclinical subjects. In a recent study of 366 consecutively admitted adult psychiatric outpatients and in an independent sample of 385 adult non-clinical volunteers (Fossati, Borroni, Grazioli, Dornetti, Marcassoli, Maffei, & Cheek, in press), the HSNS had adequate internal consistency (i.e., Cronbach  $\alpha > .70$ ). Among clinical participants, the HSNS and the NPI showed radically different patterns of correlations with the *DSM-IV* Personality Disorder diagnoses. In both samples, the HSNS and the NPI showed distinct and theoretically consistent correlations with temperament and character dimensions. In the present study, the HSNS had a Cronbach's  $\alpha$  of .60.

## Results

Descriptive statistics of RPQ, NPI, and HSNS scores in the full sample and broken down by sex are listed in Table 1. Males scored significantly higher than females on both RPQ aggression scales, as well as on both narcissism measures (see Table 1). However, the association between participants' sex and reactive aggression became nonsignificant when the effect of proactive aggression was held constant,  $pr(671) = -.03$ ,  $p > .30$  (but not vice versa), suggesting that the sex difference was primarily for the aspect of aggression that is reflected in proactive aggression.

Consistent with previous findings (Raine *et al.*, 2006), the RPQ reactive and proactive aggression scales were significantly correlated,  $r(672) = .53$ ,  $p < .001$ . Participants' age was not significantly associated with RPQ, NPI, or HSNS.

As expected, the HSNS and the NPI total scores were significantly, albeit weakly, correlated,  $r(672) = .19$ ,  $p < .001$ . When all the NPI subscales were entered in the regression equation, only Entitlement significantly predicted the HSNS total score,  $\beta = .25$ ,  $p < .001$ ,  $R^2_{adj}$  (i.e.,  $R^2$  adjusted for the number of predictors) = .06. When the effect of the Entitlement subscale was partialled from the correlation, the correlation between the NPI and the HSNS total scores became nonsignificant, partial  $r(672) = .05$ ,  $p > .10$ , suggesting that sense of entitlement represented a psychopathological core that was common both to overt and covert subtypes of pathological narcissism (Wink, 1996).

Consistent with previous findings (Reidy *et al.*, 2008), in the present study the NPI subscales were only moderately correlated, average  $r = .29$  (median  $r = .29$ ),  $SD = .08$  (min.  $r = .09$ , max.  $r = .43$ ). This finding suggests that there is considerable variability in clinical presentations within the realm of overt narcissism. When the Self-sufficiency scale, which is usually considered a measure of healthy narcissism (Raskin & Novacek, 1989), was excluded, the NPI subscale correlations were almost unchanged, average  $r = .30$  (median  $r = .29$ ),  $SD = .07$  (min.  $r = .20$ , max.  $r = .43$ ).

Separate multiple regression analyses were used to predict measures of proactive or reactive aggression from both NPI and HSNS total scores. Multicollinearity was tested by means of variance inflation factors (VIF). VIF values of 1 indicate the model terms are not linearly related, whereas a value in excess of 10 suggests that multicollinearity may be unduly influencing the least squares estimates. Moderated regression models were used to evaluate the parallelism of regression slopes across males and females. In secondary analyses, the effects of age, gender, and the other aggression subtype on the relation between each RPQ scale and NPI and HSNS total scores were tested using hierarchical regression models.

Uncorrected  $\beta$  coefficients and  $R^2_{adj}$  values are listed in Table 2. Maximum VIF values in for all the regression analyses were  $< 1.5$ , indicating that there were no problems with multicollinearity. The NPI total score was a significant predictor of both Proactive and Reactive Aggression, whereas the HSNS total score significantly predicted only Reactive Aggression. These relations remained significant even when the effects of age, gender, and the other aggression subtype were taken into account in hierarchical regression models.

In addition to raw standardized beta coefficients, standardized beta coefficients corrected for attenuation were also computed (i.e., the beta coefficients were corrected for low Cronbach  $\alpha$  values that attenuate the correlations between scales; Nunnally, 1978). The relation of the HSNS total score to the RPQ Proactive Aggression scale remained trivial even when the beta weight was corrected for attenuation ( $\beta = .10$ ), particularly when it was compared to the effect of the NPI (corrected for attenuation  $\beta = .54$ ). In the case of Reactive Aggression, the standardized regression coefficients corrected for attenuation were .45 and .25 for the NPI and the HSNS total scores, respectively.

Moderation analyses showed that the regression lines were parallel in male and female subgroups; indeed, the HSNS-by-sex effect was not significant for either Proactive Aggression,  $b = .03$ ,  $SE = .04$ ,  $p > .40$ , or Reactive Aggression,  $b = .01$ ,  $SE = .05$ ,  $p > .80$ ; similar nonsignificant results were found for the NPI-by-sex interactions.

Two stepwise regression analyses ( $p$  of  $F$ -to-enter = .05,  $p$  of  $F$ -to-remove = .10) were computed to identify the NPI subscales that were the best predictors of Proactive or Reactive Aggression scales. In supplemental analyses the effect of controlling age, sex, and the other aggression subtype on the relations between each RPQ scale and NPI subscales was tested using hierarchical regression models (e.g., proactive aggression was controlled in the regressions predicting NPI subscales from reactive aggression).

The results of the stepwise regression analyses, uncorrected for the effects of age, sex, and the other aggression subtype, predicting proactive or reactive aggression from the NPI subscales are shown in Table 3. Maximum VIF values in the regression for all regression analyses were  $< 2$ , suggesting that multicollinearity did not bias our findings. According to raw standardized regression coefficients, only Self-sufficiency was not related to either Proactive or Reactive Aggression scale scores. In contrast, Exhibitionism was a significant predictor of both subtypes of aggression. Authority, Exploitativeness, and, to a lesser extent Vanity, were significant, positive predictors of Proactive Aggression, whereas Entitlement and Superiority significantly predicted only Reactive Aggression.

Finally, using a hierarchical regression approach, we examined which NPI dimensions predicted the variance in Proactive Aggression after controlling for Reactive Aggression (i.e., "pure" Proactive Aggression). Exhibitionism, Vanity, Exploitativeness, and Authority remained significant predictors of Proactive Aggression,  $\beta$ s = .15, .09, .09, and .08,  $ps < .001$ , .01, .01, and .05. After controlling for the effect of Proactive Aggression, Superiority and Exhibitionism became nonsignificant predictors of reactive aggression, whereas

Entitlement,  $\beta = .21$ ,  $p < .001$ , still significantly predicted “pure” Reactive Aggression scores.

## Discussion

As a whole, our results were highly consistent with previous studies suggesting a significant association between aggression and narcissistic personality features (e.g., Baumeister, Bushman, & Campbell, 2000; Salmivalli, 2001; Barry *et al.*, 2007; Martinez *et al.*, 2008; Reidy *et al.*, 2008). In our sample, overt and/or covert narcissistic features explained roughly one-fifth and one-sixth of the overall variance in the RPQ Proactive and Reactive Aggression scales, respectively. Although narcissism clearly is not the only risk factor related to proactive and reactive aggression, these proportions of explained variance are not trivial, especially when one considers the relatively low reliability of the Italians' HSNS scores.

Consistent with Wink's (1991) seminal study, in our adolescent sample measures of overt and covert narcissism were weakly correlated, and this association was explained by a common core comprised of a sense of entitlement. The small-to-moderate correlations that were observed among the NPI subscales in this study support the multi-dimensional nature of overt narcissism (Wink, 1991).

We found that overt narcissism in adolescence was significantly associated with both proactive and reactive aggression. The association between overt narcissism and reactive aggression is consistent with the results of experimental studies (Bushman & Baumeister, 1998; Papps & O'Carroll, 1998; Twenge & Campbell, 2003) suggesting that threatened egotism may be an important cause of violence in narcissistic subjects. The positive relation between overt narcissistic features and proactive aggression that was found in our sample is consistent with Martinez and colleagues' (2008) finding that narcissistic individuals were likely to act aggressively towards innocent others when there was uncertainty with regard to potential damage to their self-perceptions of superiority (suggesting that narcissistic individuals tend to aggress against others in a proactive way, and not only in reaction to frustration).

The association between covert narcissism and reactive, but not proactive, aggression observed in this study supports the distinction between covert and overt subtypes of narcissism. Confirming and extending Wink's (1991) findings, our results suggest that the emotionality of covert narcissists is not confined simply to hypersensitivity, anxiety and insecurity, but also includes the propensity to respond with irritation, hostility, and affect-laden defensive behavior when provoked (i.e., reactive aggression; Dodge, 1991; Meloy, 1988). Moreover, the finding that overt narcissism relates to proactive and reactive aggression, but covert narcissism relates only to reactive aggression, is consistent with recent research on the associations of overt and covert narcissism with approach versus avoidance motivation. For example, overt narcissism has been associated with strong approach motivation, whereas covert narcissism has been related to only strong avoidance motivation (see Foster & Trimm, 2008).

Interestingly, within the realm of overt narcissism, different subtypes of a narcissistic personality seemed to be involved in proactive and reactive aggression. Exhibitionism, Authority, Exploitativeness and Vanity were the characteristics of overt narcissism that were associated with proactive aggression. This finding suggests that unprovoked, instrumental aggression (Dodge, 1991; Meloy, 1988; Mirsky & Siegel, 1994) may be way for overt narcissists to show other people “who is on top,” at least in adolescence. Although

narcissistic Authority has been shown to reflect the least maladjustment (Raskin & Novacek, 1989), our results suggest that in adolescence it may play a role in proactive aggression.

Entitlement was the dimension of an overt narcissistic personality that predicted reactive aggression among Italian adolescents, even when controlling for proactive aggression (and also did not predict proactive aggression). It is unclear why entitlement was uniquely associated with reactive aggression; perhaps, due to their emotionality, adolescents prone to reactive aggression tend to ruminate about what they feel entitled to receive (and believe they have not received). In contrast, self-sufficiency did not significantly predict either proactive or reactive sub-types of aggression. This finding was consistent with previous studies that suggested that narcissism, at least as it is assessed by the NPI, may represent an admixture of maladaptive and adaptive personality traits (Reidy *et al.*, 2008), with self-sufficiency sometimes being adaptive.

The multidimensionality of narcissism may be useful for reconciling the discrepant findings frequently observed in research on the interface between narcissism and aggression (Salmivalli, 2001). Indeed, our findings suggest that results may differ from sample to sample because of the mixture of overt and covert narcissists in different samples, as well as because of differing degrees of the various sub-dimensions of overt narcissism in different samples.

The results of this study should be considered in the light of several limitations. The sample was not random and was composed of adolescent volunteers. Participants were all high school students, a fact that it severely limits the generalizability of our findings to clinical populations. Moreover, we relied only on self-report measures. Social desirability and the non-clinical setting may have led to biased reports of aggression and narcissism indices. Because clinical samples often ask for treatment to alleviate to their distress, they may be more inclined to provide accurate reports of their narcissistic tendencies. Indeed, in general, research using social psychology's conception of narcissism (e.g., the NPI) may have limited utility for clinical populations (Foster & Campbell, 2007; Miller & Campbell, 2008). In addition, the Cronbach  $\alpha$  values that were obtained in the present study for the NPI subscales were, on average, fairly low, although highly consistent with those previously reported in the literature (Raskin & Terry, 1988; del Rosario & White, 2005).

Unfortunately, we were not able to evaluate issues concerning the multidimensionality of covert narcissism because there was no available multi-dimensional measure of this construct when the present study was carried out. Further, although the various self-report questionnaires did not have any clear overlap in item wording or content, an effect of common-method variance cannot be completely ruled out. Thus, there is a need for additional studies using different methods of assessing the focal constructs. However, despite these limitations, our results may contribute to a better understanding of the relations among subtypes of narcissism and their differential relations to subtypes of aggression.

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**Table 1**  
**Reactive-Proactive Questionnaire, Hypersensitive Narcissism Scale, and Narcissistic Personality Inventory Descriptive Statistics in the Full Sample (N = 674) and Broken Down by Gender**

	Full Sample (N = 674)		Male Participants (n = 331)		Female Participants (n = 343)		<i>r<sub>pb</sub></i>
	M	SD	M	SD	M	SD	
RPQ							
Reactive Aggression	9.11	3.73	9.54	3.80	8.69	3.61	.12**
Proactive Aggression	2.67	2.87	3.46	3.30	1.92	2.12	.27***
HSNS Total Score	26.95	5.57	26.39	5.35	27.49	5.73	-.10*
NPI Total Score	16.53	6.89	17.43	7.01	15.66	6.67	.13***
NPI Sub-scales							
Authority	2.62	1.89	3.01	1.83	2.24	1.88	.20***
Self-sufficiency	2.76	1.61	3.12	1.43	2.41	1.71	.22***
Superiority	2.75	1.43	2.71	1.31	2.78	1.55	-.03
Exhibitionism	2.39	1.64	2.57	1.60	2.23	1.67	.11**
Exploitativeness	1.53	1.34	1.58	1.33	1.48	1.36	.04
Vanity	1.11	1.16	.97	1.12	1.24	1.19	-.12**
Entitlement	3.19	1.69	3.26	1.65	3.13	1.73	.03

Note. RPQ: Reactive-Proactive Questionnaire; NPI: Narcissistic Personality Inventory; HSNS: Hypersensitive Narcissism Scale.

\* *p* <.05;

\*\* *p* <.01;

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

**Table 2**  
**Results of Regression Analyses Predicting Reactive or Proactive Aggression from Both Narcissistic Personality Inventory and Hypersensitive Narcissism Scale Total Scores (N = 674)**

	Dependent Variables	
	Proactive Aggression	Reactive Aggression
	$\beta$	$\beta$
Narcissistic Personality Inventory (overt narcissism)	.42***	.35***
Hypersensitive Narcissism Scale (covert narcissism)	.07	.17***
Model $R^2_{adj}$	.19***	.17***

*Note.* Uncorrected standardized regression coefficients are displayed.

\*  $p < .05$ ;

\*\*  $p < .01$ ;

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

**Table 3**  
**Results of Stepwise Regression Analyses Predicting Reactive or Proactive Aggression**  
**from the Narcissistic Personality Inventory Subscale Scores (N = 674)**

Narcissistic Personality Inventory	Dependent Variables	
	Proactive Aggression $\beta$	Reactive Aggression $\beta$
Authority	.17***	
Exhibitionism	.25***	.22***
Superiority		.10*
Entitlement		.22***
Exploitativeness	.12**	
Self-sufficiency		
Vanity	.08*	
Model $R^2_{adj}$	.21***	.15***

*Note.* Uncorrected standardized regression coefficients are displayed.

\*  $p < .05$ ;

\*\*  $p < .01$ ;

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