The relationship between narcissism and antisocial behavior: the role of moral disengagement.

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Abstract

The aim of this study was to get a better understanding of the relationship of narcissism and antisocial behavior. Moral disengagement was examined as a moderator on this relationship. The current research expected that the construct of narcissism had a positive link with antisocial behavior. It was also expected that high levels of moral disengagement increases the relationship between the construct of narcissism and antisocial behavior. This study examined two different concepts of narcissism, vulnerable and grandiose narcissism. The moderation effect of moral disengagement is expected to be stronger for vulnerable narcissism in comparison to grandiose narcissism. In this study 141 participants were administered the pathological narcissism inventor (PNI), the antisocial Behavior Questionnaire (STAB), and the Moral Disengagement Scale (MDS). Results show that a significant relationship between narcissism and antisocial behavior was found. A significant relationship between grandiose narcissism and antisocial behavior was also found. No moderation effect of moral disengagement was found on any of the relationships.

Keywords: narcissism, vulnerable, grandiose, moral disengagement, antisocial behavior

Narcissism is often seen as a problematic and socially aversive personality trait. Although narcissism shows common features with other socially aversive personalities such as psychopathy, it is still suggested to be a separate construct (Fossati, Pincus, Borroni, Munteanu, & Maffei, 2014). Narcissism is seen as patterns of grandiosity, which reflects on the behavioral attitudes towards oneself and others (Raskin & Terry, 1988). Self-love, selfadmiration, and self-aggrandizement are examples of attitudes towards oneself within the concept of narcissism. Self-aggrandizement can be defined as the exaggerating of one's importance. Towards others narcissism attitudes includes: feeling of entitlement, intolerance for criticism, and defensive orientation towards their grandiose self-image (Raskin & Terry, 1988). The DSM-5 explains the concept of narcissistic personality disorder especially by these grandiose symptoms. (American psychiatric association, 2013). However, as a concept used by Freud, narcissists are also marked by the fear or vulnerabilities related to self-esteem. This fear is mostly expressed as a fear of loss of love and fear of failure (Raskin & Terry, 1988). The level of this vulnerable self-image within the concept of narcissism is discussed to be a marker for differentiation within this concept (Wink, 1991). Wink (1991) introduced the differentiated concepts of vulnerability-sensitivity (vulnerable narcissism) and grandiosityexhibitionism (grandiose narcissism). Vulnerability narcissism is associated with introversion, defensiveness, anxiety, and vulnerability of life's traumas. Grandiose narcissism is associated with extraversion, self-assurance, exhibitionism, and aggression (Wink, 1991). Although, there are differences, these two dimensions of narcissism overlap in the key traits of narcissism. However, there is a difference in how these two dimensions behaviorally express. Vulnerable narcissism factor is more associated with defensive, anxious, emotional, moody, bitter, and discontented behaviors (Wink, 1991). These behaviors make the vulnerable narcissist experience discomfort in leadership roles and a lack of self-confidence in social settings. This can also be partly explained by the suggested higher levels of introversion and

internality within the concept of vulnerable narcissism (Wink, 1991). In contrast grandiose narcissism behaviors are more associated with power orientation, manipulativeness, self-dramatization, and independence. These behaviors are expressed and experienced as more aggressive, show-off, egotistical, assertive, and self-centered. Which is a result of their internal overconfidence and their need for admiration, which they're more likely to maintain with aggressiveness at the cost of others (Wink, 1991). This differentiation of grandiosity and vulnerability within the concept of narcissism is widely used (Fossati, 2014; Pincus, 2009; Wright, Lukowitsky, Pincus, & Conroy, 2010).

Narcissism is related to antisocial behavior due to the behavior expressions of the narcissistic individual. Antisocial behaviors are marked by behavior that harm others, violate societal norms, and could infringe on the personal or property rights of others (Burt & Donnellan, 2009). These behaviors express themselves in acts of vandalism, theft, and assault. The expression of antisocial behavior varies greatly from individual to individual. A distinction is often made between overt and covert antisocial behavior. Overt antisocial behavior is explained as aggressive/oppositional behavior (assault) where covert is seen as nonaggressive/rule-breaking behavior (theft) (Frick et al., 1993). In line with the general concept of narcissism, both vulnerable and grandiose narcissism are linked to antisocial behavior. Both concepts are suggested to be associated with aggression and low empathy (Pincus et al., 2009). However, antisocial behavioral expression vary due to distinct interpersonal problems. Grandiose narcissism is positively related with vindictive, domineering, intrusive, and overly nurturing interpersonal problems. This could indicate more overt antisocial behavior. On the contrary, vulnerable narcissism is more positively related with cold, exploitable interpersonal problems (Pincus et al., 2009), which could indicate more covert antisocial behavior. The differentiation within narcissism could give further insight of the underlying mechanisms linking narcissism to antisocial behavior.

As a form of antisocial behavior, aggression is often linked to narcissism. Calvete and Orue (2010) found a direct association between narcissism and proactive aggression. This kind of aggression is mainly used instrumental and is marked by hostile and goal-directed behavior (Dodge & Coie, 1987). Calvete and Orue (2010) suggested that a person with ideas of grandiosity uses aggression in situations when their grandiose self-image is threatened. Furthermore, Lau and Marsee (2013) found that narcissistic traits predicted (relational) aggression, and delinquency. They explained these relationships by the association between narcissism and behavioral and emotional dysregulation. They suggest that individuals with high levels of narcissism are prone to impulsive and irresponsible behavior. Although narcissism is often linked to aggression (Calvete & Orue, 2010; Lau & Marsee, 2013) key aspects of narcissism are also likely to facilitate other antisocial behavior. For example, feelings of entitlement could facilitate theft. Another example is the tendency to give in to one's own needs and disregard others (Wink, 1991), what facilitates the violation of societal norms and delinquency. In the DSM-5 classification the exploitation of others is a classification criteria to the narcissistic personality disorder (American psychiatric association, 2013). Although there is a differences between the concept of narcissism and narcissistic personality disorder, the proneness to antisocial behavior by the narcissistic individual can be suggested.

One mechanism that is suggested to be associated with antisocial behavior is moral disengagement (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Hyde, Shaw, & Moilanen, 2010). The theory of moral disengagement, as developed by Bandura et al. (1996), explains different ways people justify their behaviors when violating social and moral norms. In general, people choose to refrain from behavior violating their internal moral standards, which are modeled by their surrounding society and its communal norms and values. If they violate these internal moral standards they experience self-sanctioning, such as shame and

decreased self-worth. In order to prevent self-sanctioning when violating internal moral standards people disengage themselves from their immoral conduct (Bandura et al., 1996). This phenomenon is named moral disengagement. Bandura et al. (1996) explains that there are different mechanisms of moral disengagement. One of these mechanisms is moral justification and reflects the way people justify the rightness of their actions to themselves. For example, a soldier justifies killing because he is convinced doing so protects his country. Another mechanism is dehumanization in which people are likely to dismantle victims of their human qualities. Therefore someone's victim is seen as some kind of object without any feelings or hopes (Bandura et al., 1996). People who can be seen as high moral disengagers are more promptly angered and are more likely to show injuriously behavior. In addition, high moral disengagers are more prone to engage in thought patterns favorable for aggression (Bandura et al., 1996). Because antisocial behavior is often violating societal norms, and thus violating internal moral standards, mechanisms of moral disengagement are likely used. Moreover, Hyde et al. (2010) found that some early risk factors (neighborhood impoverishment and low empathy) were related to later moral disengagement. Accordingly, Hyde et al. (2010) suggest that moral disengagement is formed in early childhood. This could imply that the construct moral disengagement forms itself apart from any personality disorders such as narcissism.

Little is known about how the constructs of narcissism and moral disengagement relate. However, many traits of the concept of narcissism indicate a possible connection.

There are reasons to believe that moral disengagement plays a role in the behavioral expression of narcissism and the endorsement of antisocial aspect of this behavior. Bandura et al. (1996) discuss self-sanctioning as an opposite of moral disengagement on a behavioral scale. They discussed that a sense of empathy strengthens forms of self-sanctioning. Again this could indicate a level of moral disengagement, since low empathy is a marker of

narcissism. Furthermore, grandiose self-image could be expressed by moral justification. For example, if someone sees his victim as less than himself, it can be suggested that he would more likely find his actions justified. In addition, narcissists are suggested to be low in communal orientation and more focused on the self, which give the tendency to acts of selfishness (Campbell, Rudich, & Sedikides, 2002). With moral disengagement they are able to justify these acts of selfishness even more, what makes the narcissist even less prone to experience feelings of self-sanctioning. It is because of this trait of reduced feelings of selfsanctioning, moral disengagement could give the narcissistic individual less inhibition for the enactment of antisocial behavior. Fossati et al. (2014) found that vulnerable and grandiose narcissism have different associations within the construct of moral disengagement, with only vulnerable narcissism been significantly associated. They discuss that within the concept of grandiose narcissism the feeling of superiority that marks the grandiose narcissist could be enough justification for immoral conduct. However they discuss the vulnerable narcissist could need other mechanisms to justify immoral conduct (Fossati et al., 2014). This research will include the immoral conduct in the form of antisocial behavior to further examine these theories.

Although previous research gives implications for the mechanisms used within the relationship of narcissism and antisocial behavior, very little is known how the mechanism of moral disengagement can play a role in this relationship. By making a differentiation within the concept of narcissism more can be known about the different associations with antisocial behavior. Furthermore, this differentiation could indicate if moral disengagement is used within these relationships and can strengthen earlier theoretical frameworks. This can give deeper understanding in which patterns are formed to aid and maintain the relationship with antisocial behavior within the narcissistic individual. Based on previous research, this research expects that the construct of narcissism has a positive link with antisocial behavior.

Furthermore, it was expected that high levels of moral disengagement increases the relationship between the construct of narcissism and antisocial behavior. This moderation effect of moral disengagement is expected to be stronger for vulnerable narcissism compared to grandiose narcissism.

Method

Participants

This study was conducted with a sample of 141 participants. An average age of 31,90 years (SD = 15.28) was found. Sixty-eight (48.23%) of all participants were male and Seventy-three (51.77%) were female. In total 126 of all participants (89.36%) had the Dutch nationality. Most participants were single (37,76%) others were in a relationship (32,16%), married (24,58%), or had another marital status (5,6%). Only thirty-five (24,82%) participants had any children. Most participants (56,64%) were educated at a VWO level or higher.

Instruments

Narcissism. The construct of narcissism was measured using the Pathological Narcissism Inventory (PNI; Pincus et al., 2009). The PNI is a self-report measure and consists of 52 questions scored on a 6-point scale ("absolutely not like me", "not like me", "not exactly like me", "a bit like me", "like me", and "absolutely like me"). The PNI measures seven aspects of pathological narcissism: Contingent self-esteem, exploitative, self-sacrificing self-enhancement, hiding the self, grandiose fantasy, devaluing, and entitlement rage. The PNI includes vulnerable aspects (Contingent self-esteem, hiding the self, and devaluing) and grandiose aspects (Exploitative, self-sacrificing self-enhancement, grandiose fantasy, and entitlement rage). Grandiose subscale question examples were: "I find it easy to manipulate people" and "I get angry when criticized". Whereas vulnerable scale question examples were: "I am disappointed when people don't notice me" and "I feel important when others rely on

me". The total PNI sum score was used to indicate for the level of narcissism. A high sum score on the PNI indicate a high level of narcissism. Likewise higher sum scores for the aspects of vulnerable and grandiose narcissism indicate high level of vulnerable and grandiose narcissism. In this study a total PNI alpha coefficient was found of .95. For vulnerable and grandiose PNI respectively an alpha value of .92 and .91 was found. Fossati et al. (2014) also found a Total PNI alpha value of .95. Furthermore, Wright et al. (2010) found a similar total PNI score of .93.

Antisocial behavior. Antisocial-behavior was measured with the antisocial Behavior Questionnaire (STAB; Burt & Donnellan, 2009). This questionnaire was used to measure antisocial behavior over three subscales: physical aggression, rule-breaking, and social aggression. The STAB consists of 32 items scored on a 5-point scale ("never", "hardly ever", "sometimes", "frequently", and "nearly all the time"). The STAB is a freely available self-report questionnaire that is suitable for clinical and non-clinical samples (Burt & Donnellan, 2009). Item examples by subscale were respectively: "Had trouble controlling temper" (physical aggression), "Stole property from school or work" (rule-breaking), and "Made negative comments about other's appearance" (Social aggression). High scores on the STAB indicate a high prevalence of self-reported antisocial behavior. Alpha values ranged from .84 to .91 for physical aggression, from .83 to .90 for social aggression, and from .71 to .87 for rule breaking depending on sample sort (Burt & Donnellan, 2009). In this study a total STAB Alpha value of .87 was found.

Moral Disengagement. The Moral Disengagement Scale (MDS) was used to determine the level of moral disengagement (Bandura et al., 1996). The MDS is a 32 item questionnaire scored on a 4-point Likert-type scale ("fully disagree", "disagree", "agree", and "fully agree"). The MDS was divided in eight mechanisms of moral disengagement: moral justification ("It is alright to fight to protect your friends"), euphemistic language ("slapping").

and shoving someone is just a way of joking"), advantageous comparison ("Damaging some property is no big deal when you consider that others are beating people up"), displacement of responsibility ("If kids are not disciplined they should not be blamed for misbehaving"), diffusion of responsibility ("A kid in a gang should not be blamed for the trouble the gang causes"), distorting consequences ("It is okay to tell small lies because they don't really do any harm"), attribution of blame ("If kids fight and misbehave in school it is their teacher's fault"), and dehumanization ("Some people deserve to be treated like animals"). Each subtype contains four items. Total sum scores were used to indicate the lever of moral disengagement. High total sum scores indicate high prevalence of moral disengagement. Bandura et al. (1996) found total alpha reliability coefficient of .82 for this questionnaire. Current study found a total MDS alpha value of .89.

Procedure

Questionnaires used in this research were part of a package of questionnaires completed in a non-clinical environment. This study relies on questionnaires based on self-report.

Questionnaires were distributed by master students of Tilburg University. Participants were asked to finish the questionnaires in one go. The students distributing the questionnaires were on location if help was needed. No reward was given to participants for completing the questionnaire.

Data analysis. First part of the data analysis was to examine the missing data. A threshold of 10% missing data was set per participant. Exceeding this threshold meant exclusion from the data set. As a result N = 4 participants were excluded. To check of missing data was randomly distributed within the data set, Little's MCAR test was used. No significant result was found $X^2(3008, N = 143) = 2928,87, p = .85$ and random organization of missing data was concluded. A maximum percentage range of 0-2.1% of missing values per

item was found. Expectation-maximization technique was used to transform the remaining missing data.

After computing the variables into sum scores the data was checked for outliers. Outliers were found comparing Mahalnobis distance (p< .001 = 13.82, N=0), Cook's distance (= .03, N=8) and Centered leverage value (= .04, N=8). Participants who were considered as an outlier, for two or more of the methods above, were excluded from the dataset. Two outliers were found and removed from the dataset, leaving a dataset of 141 participants.

To check for high correlations between the variables a correlational analysis was performed. The current study had a cross-sectional design. For moderator analysis (Baron & Kenny, 1996) it is especially important that the independent and moderator variable are not highly correlated. Checking for multicollinearity showed a correlation between PNI and MDS of r = .41, p < .01. This is not seen as a problematic correlations for the moderation. Assumption concerning normality, linearity, homogeneity and homoscedasticity did not show abnormalities. The three moderation schemas (figure 1) were analyzed with multiple linear regression. The first analysis analyzed moderation effect of moral disengagement on the relationship of narcissism and antisocial behavior. This analysis tested the first hypothesis of the current research. The total sum scores on the PNI was set as independent variable, total sum scores of the MDS as independent variable and the total sum scores on the STAB as the dependent variable and was put into model 1. The independent control variables of sex and age were also added in both models. In Model 2 an interaction between narcissism and moral disengagement was added (PNIxMDS). If significant interaction effects were found a simple slope analysis using the Process Macro (Hayes, 2013) was done to examine the moderation effect of moral disengagement. The second hypothesis tested the moderation effect of moral disengagement on the relationship of vulnerable or grandiose narcissism and antisocial behavior. A similar data analysis done as the first hypothesis, only instead of total sum scores

PNI the total sum scores of both vulnerable PNI (VulPNI) and grandiose PNI (GraPNI) were added as independent variable in model 1.

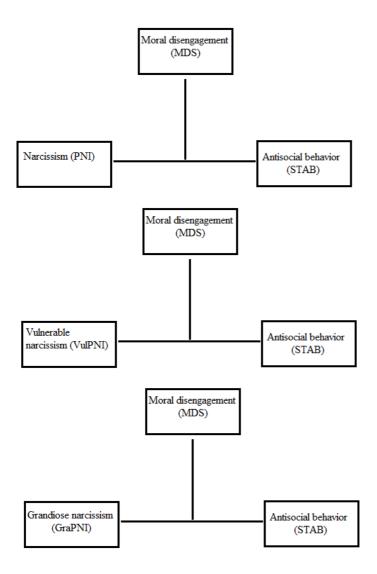


Figure 1: moderation schemas

Results

Descriptive statistics

Results were based on a data-set of N = 141. Descriptive statistics with the means and standard deviation of all analyzed variables are demonstrated in table 1. Table 2 shows the correlation coefficients between the different variables. All correlations were found statistically significant. As was expected vulnerable and grandiose narcissism are highly correlated with overall narcissism. Grandiose and vulnerable narcissism were less correlated but a strong correlation was still found. Grandiose narcissism was correlated with antisocial behavior, a lower correlation coefficient was found considering vulnerable narcissism and antisocial behavior. This indicates that there is a stronger overlap between the variables of grandiose narcissism and antisocial behavior, compared to the overlap between vulnerable narcissism and antisocial behavior.

Table 1

Descriptive statistics

	N	%	M	SD	
Age	141		31.90	15.28	
Sex	141				
Male	68	48.23			
Female	73	51.77			
Narcissism	141		91.55	34.81	
Vulnerable narcissism	141		42.02	19.11	
Grandiose narcissism	141		49.54	18.66	
Antisocial behavior	141		50.13	9.19	
Moral disengagement	141		51.94	10.23	

Table 2

Pearson Correlation coefficients

1	2	3	4		5
-					
.92**	-				
.92**	.70**	-			
.41**	.52**	.32**	-		
.50**	.52**	.41**	.29**		-
	- .92** .92**	.92**92** .70** .41** .52**	.92**92**41** .52** .32**	.92**92**41** .52** -	.92**92**41** .52** -

^{*}p < .05. **p < .001

Regression analysis

To confirm or reject the first hypothesis, the moderation effect of moral disengagement on the relationship between narcissism and antisocial behavior was analyzed. Statistics concerning this analysis can be found in Table 3. The interaction of narcissism and moral disengagement was added in model 2, no significant interaction was found (t(135)) = 1.70, p = .09). No significant model change was found by adding the interaction ($F\Delta(5, 135)$) = 10.59, p = .09). Due to the lack of significant interaction, no simple slope analysis was done. Analyzation of the main effects shows that only the variable of narcissism was found as a significant predictor for antisocial behavior (t(136)) = 5.20, p < .001). This indicates that a higher level of narcissism is more likely to have higher level of antisocial behavior.

Narcissism, moral disengagement, age and sex significantly explained 26.6 % of the variance of antisocial behavior (F(4, 136) = 12.34, p = < .001).

Table 3
Summary moderation statistics

Model 1				Model 2			
В	SE B	β	t	В	SE B	β	t
.12	.02	.44**	5.20	05	.10	17	47
03	.05	05	58	02	.05	04	51
.52	1.42	.03	.36	.60	1.41	.03	.43
.10	.08	.11	1.30	21	.19	23	-1.07
				.00	.00	.83	1.70
			12.34**				10.59
			.27				.28
							.02
	.12 03 .52	B SE B .12 .02 03 .05 .52 1.42	B SE B β .12 .02 .44** 03 .05 05 .52 1.42 .03	B SE B β t .12 .02 .44** 5.20 03 .05 05 58 .52 1.42 .03 .36 .10 .08 .11 1.30 12.34**	B SE B β t B .12 .02 .44** 5.20 05 03 .05 05 58 02 .52 1.42 .03 .36 .60 .10 .08 .11 1.30 21 .00	B SE B β t B SE B .12 .02 .44** 5.20 05 .10 03 .05 05 58 02 .05 .52 1.42 .03 .36 .60 1.41 .10 .08 .11 1.30 21 .19 .00 .00	B SE B β t B SE B β .12 .02 .44** 5.20 05 .10 17 03 .05 05 58 02 .05 04 .52 1.42 .03 .36 .60 1.41 .03 .10 .08 .11 1.30 21 .19 23 .00 .00 .83

^{*}p <.05. **p<.001

To confirm or reject the second hypothesis, the moderation effect of moral disengagement on the relationship between the two different concepts of narcissism and antisocial behavior was analyzed. Statistics concerning this analysis can be found in Table 4. The interaction of vulnerable narcissism and moral disengagement was added in model 2, together with the interaction effect of grandiose narcissism and moral disengagement. No significant interaction was found for vulnerable narcissism and moral disengagement (t(133) = .05, p = .96). No significant interactions was found for grandiose narcissism and moral disengagement (t(133) = .99, p = .32). No significant model change was found by adding the different interactions. Again no simple slope analysis was done due to the lack of significant

interactions ($F\Delta(7, 133) = 8.28, p = .25$). In model 1 only the variable of Grandiose narcissism was found as a significant predictor for antisocial behavior (t(135) = 3.97, p < .001). This indicates that a higher level of grandiose narcissism is more likely to have a higher level of antisocial behavior. In model 2 the variables of: vulnerable narcissism, grandiose narcissism, age and sex significantly explained 28.9 % of the variance of antisocial behavior (F(5, 135) = 10.97, p = < .001).

Table 4
Summary moderation statistics

	Model 1				Model 2				
	В	SE B	β	t	В	SE B	β	t	
Vulnerable narcissism	.02	.05	.04	.38	.02	.30	.04	.06	
Grandiose narcissism	.23	.06	.46**	3.97	09	.32	17	26	
Moral disengagement	.08	.07	.09	1.12	23	.20	25	-1.14	
Age	02	.05	04	48	.05	.05	03	31	
Sex	1.63	1.49	.09	1.09	1.50	1.41	.09	1.09	
Vulnerable x Moral					.01	.04	.04	.05	
disengagement									
Grandiose x Moral					.01	.83	.83	.99	
disengagement									
F				10.97**				8.28	
\mathbb{R}^2				.29				.30	
R ² Change								.02	

^{*}p <.05. **p<.001

Discussion

The aim of the current study was to get a better understanding of the relationship between narcissism and antisocial behavior. A positive moderator effect of moral disengagement on the relation between narcissism and antisocial behavior was hypothesized. This study examined two different concepts of narcissism, vulnerable and grandiose narcissism. A stronger positive moderation effect was expected for vulnerable narcissism, compared to grandiose narcissism.

As earlier research suggested, a significant relationship between narcissism and antisocial behavior was found (Calvete & Orue, 2010; Lau & Marsee, 2013). This indicates that people with a higher level of narcissism are more likely to have a higher level of reported antisocial behavior. However, no moderation effect of moral disengagement was found. Consequently this research did not find any evidence that moral disengagement has any effect on the relationship between narcissism an antisocial behavior. Within the concept of narcissism only a relationship of grandiose narcissism and antisocial behavior was found. This suggests that people with a higher level of grandiose narcissism are more likely to report a higher level of antisocial behavior. No relationship was found between vulnerable narcissism and antisocial behavior. Therefore, the results suggest that people that score high on vulnerable narcissism are not more likely to score higher on antisocial behavior. Although no moderation effect was found, these results suggest that somebody scoring high on grandiose narcissism may be more prone to antisocial behavior than somebody with vulnerable narcissism. Fossati et al. (2014) discussed that people with grandiose narcissism may find their state of superiority enough of a reason for their immoral conduct. This could explain why relationship between grandiose narcissism and antisocial behavior was found and a moderation effect of moral disengagement was not found. In addition, this may explain why no relation was found between vulnerable narcissism and antisocial behavior. Somebody

scoring high on vulnerable narcissism may need additional mechanisms before proceeding in antisocial behavior. In contrast with earlier research (Fossati et al., 2014) the current study did not find evidence that moral disengagement is one of these mechanisms used within the concept of vulnerable narcissism. As discussed in the introduction vulnerable narcissism is more related to covert antisocial behavior (Pincus et al., 2009). Frick et al. (1993) shows that covert antisocial behavior will mostly be expressed in less aggressive and less destructive behavior compared to overt antisocial behavior. The vulnerable narcissism could possibly experience his antisocial behaviors as less severe and therefore does not need moral disengagement as a mechanism for the enactment of this behavior.

Results considering the relationship between moral disengagement and antisocial behavior were remarkable. Although a significant correlation was found, this study did not find moral disengagement as a significant predictor of antisocial behavior. It seems logical that high moral disengagers are more likely to show higher levels of antisocial behavior. Although Hyde et al. (2010) and Bandura et al. (1996) both found that moral disengagement has an influence on antisocial behavior, their research methods differed compared to current research. The population used in these studies consisted of children and adolescents. This could influence the level of reported antisocial behavior since adolescents are in general more likely to engage in antisocial behavior (Moffitt, 1993). Furthermore, their measurement of antisocial behavior is obtained by questionnaires focused on delinquency and aggression. This could be discussed as the most problematic side of antisocial behavior and therefore more related to forms of moral disengagement. Even though the STAB among others focuses on rule breaking and physical aggression, the main goal of Burt and Donnellan (2009) was to develop a broad orientated questionnaire. For example the different subtypes of general aggression is not assessed within the STAB (Burt & Donnellan, 2009).

This study's more general approach on antisocial behavior can be discussed as a limitation. For example, Hyde et al. (2010) discussed that moral disengagement may especially be related to proactive antisocial behavior. Different forms of antisocial behavior could have other psychological origins and moral disengagement could possibly only partly explain some of these behavioral expressions. Furthermore, antisocial behavior in general is proven to be somewhat of a difficult concept within psychological research, for this concept is not constructed in the same manner across different studies (Bandura et al., 1996; Burt & Donnellan, 2009; Moffitt, 1993). The STAB for example is mainly focused on physical aggression, rule-breaking, and social aggression (Burt & Donnellan, 2009). Within this study, the research consisted out of a non-clinical population, what can be seen as another limitation. For example, it is not likely that there is a high level of pathological narcissism and antisocial behavior within the research population. In addition, although the PNI is often used in research concerning narcissism, it is meant to be used to measure pathological narcissism (Pincus et al., 2009). These lower occurrences of higher levels of narcissism and antisocial behavior, is likely to influence the results and narrowing the diversity within these concepts. Even though a link between narcissism and antisocial behavior is found, a clinical population could give more insight in construct of narcissism and antisocial behavior. The same may apply for the constructs of vulnerable and grandiose narcissism. A clinical population may have higher levels of either of these constructs and therefore give a better understanding of the relationship they have with antisocial behavior.

In conclusion, when keeping these limitations in mind, current study did not find any evidence that moral disengagement could influence the relationship between narcissism and antisocial behavior. Findings concerning vulnerable and grandiose narcissism only show a relationship between grandiose narcissism and antisocial behavior. Although further evidence is needed, these findings suggest that expressions of antisocial behavior within the concept of

vulnerable narcissism originates out of additional cognitive mechanisms. Further research is necessary to understand why the narcissistic individual is more prone to antisocial behavior, and which cognitive mechanisms play a role in this association. Overall this research may be useful for improving the understanding of the behavioral expressions of the narcissistic individual. This could help in diagnosis and treatment of pathological narcissism.

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