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Journal of Research in Personality 36 (2002) 556–563

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JOURNAL OF  
RESEARCH IN  
PERSONALITY

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Brief report

# The Dark Triad of personality: Narcissism, Machiavellianism, and psychopathy

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## Abstract

Of the offensive yet non-pathological personalities in the literature, three are especially prominent: Machiavellianism, subclinical narcissism, and subclinical psychopathy. We evaluated the recent contention that, in normal samples, this 'Dark Triad' of constructs are one and the same. In a sample of 245 students, we measured the three constructs with standard measures and examined a variety of laboratory and self-report correlates. The measures were moderately inter-correlated, but certainly were not equivalent. Their only common Big Five correlate was disagreeableness. Subclinical psychopaths were distinguished by low neuroticism; Machiavellians, and psychopaths were low in conscientiousness; narcissism showed small positive associations with cognitive ability. Narcissists and, to a lesser extent, psychopaths exhibited self-enhancement on two objectively scored indexes. We conclude that the Dark Triad of personalities, as currently measured, are overlapping but distinct constructs.

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## 1. Introduction

Among the socially aversive personalities cited in Kowalski (2001), three have attracted the most empirical attention: Machiavellianism, narcissism, and psychopathy. The construct of Machiavellianism—in short, the manipulative personality—emerged from Richard Christie's selection of statements from Machiavelli's original books (see Christie & Geis, 1970).

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Christie fashioned those statements into a measure of normal personality by demonstrating reliable differences in respondents' agreement with the items. Further research showed that respondents who agreed with these statements were more likely to behave in a cold and manipulative fashion in laboratory and real world studies (Christie & Geis, 1970).

The construct of subclinical or 'normal' narcissism emerged from Raskin and Hall's (1979) attempt to delineate a subclinical version of the DSM-defined personality disorder. Facets retained from the clinical syndrome included grandiosity, entitlement, dominance, and superiority. Items were refined on large samples of students and assembled in the Narcissistic Personality Inventory (NPI). The successful migration from clinical to subclinical construct is well supported by a strong research literature (Morf & Rhodewalt, 2001).

The adaptation of psychopathy to the subclinical sphere is the most recent of the three (Hare, 1985; Lilienfeld & Andrews, 1996). Central character elements include high impulsivity and thrill-seeking along with low empathy and anxiety. The self-report psychopathy (SRP) scale was assembled from items that differentiated clinically diagnosed psychopaths from non-psychopaths (Hare, 1985). It was later validated in non-criminal samples (Forth, Brown, Hart, & Hare, 1996). Recent research by Williams and Paulhus (2002) confirmed that the SRP has the same four-factor solution as the Psychopathy Check List (Hare, 1991), which is the gold standard in the measurement of psychopathy. Moreover, SRP scores predict anti-social behavior in forensic and non-forensic populations (Paulhus, Hemphill, & Hare, *in press*).

Despite their diverse origins, the personalities composing this 'Dark Triad' share a number of features. To varying degrees, all three entail a socially malevolent character with behavior tendencies toward self-promotion, emotional coldness, duplicity, and aggressiveness. In the clinical literature, the links among the triad have been noted for some time (e.g., Hart & Hare, 1998). The recent development of non-clinical measures of all three constructs has permitted the evaluation of empirical associations in normal populations. As a result, there is now empirical evidence for the overlap of (a) Machiavellianism with psychopathy (Fehr, Samsom, & Paulhus, 1992; McHoskey, Worzel, & Szyarto, 1998), (b) narcissism with psychopathy (Gustafson & Ritzer, 1995), and (c) Machiavellianism with narcissism (McHoskey, 1995). Given such associations, the possibility arises that, in normal samples, the Dark Triad of constructs may be equivalent.

In the present study, we exploited three methods for teasing apart the triad of constructs. First, we mapped the triad onto the Big Five domains to examine similarities and differences on fundamental dimensions of personality. Second, we compared the triad with respect to two measures of cognitive ability. Finally, we determined whether the substantial self-

enhancement observed in narcissists (John & Robins, 1994; Paulhus, 1998; Raskin, Novacek, & Hogan, 1991) would also be evident in Machiavellian and subclinically psychopathic individuals. Two objective measures of self-enhancement were developed: One was an index of the tendency to over-claim general knowledge items; the other was a measure of discrepancy between self-reported intelligence and objectively scored intelligence.

## 2. Method

Two hundred and forty-five undergraduate psychology students (65% female) participated in the present study for extra course credit. The procedure involved two steps. First, each participant took home an anonymous questionnaire package, which included standard self-report measures of the Dark Triad and the Big Five as well as self-ratings of intelligence. Participants later returned to the lab for a supervised administration of the over claiming measure and an objective measure of global cognitive ability (IQ).

The NPI (Raskin & Hall, 1979) was used to measure narcissism. The NPI is a 40 item forced-choice questionnaire, currently the standard measure of subclinical narcissism. The Mach-IV inventory (Christie & Geis, 1970) was used to measure Machiavellianism: It consists of 20 5-point Likert items. To measure subclinical psychopathy, we used the SRP III (Hare, 1985) consisting of 31 5-point items. In our sample, the alpha reliabilities for the NPI, SRP, and Mach-IV scale were .84, .79, and .74, respectively.

The Big Five inventory (BFI) is a 44 item questionnaire designed to measure the Big Five personality traits (extraversion, agreeableness, conscientiousness, neuroticism, and openness). Its validity is well-established (John & Srivastava, 1999). The alpha reliabilities in our sample were .87, .81, .81, .86, and .80, respectively.

To measure self-perceptions of intelligence, we summed four 5-point scales anchored by *Not at all* (1) to *Very much* (5). The items were *intelligent*, *smart*, *good at school*, and *known as brainy*. In our sample, the alpha reliability was .83.

The 50-item speeded Wonderlic Personnel Test (Wonderlic, 1977) was used to measure global cognitive ability, including both verbal and nonverbal IQ. The Over Claiming Questionnaire (OCQ) was designed as an unobtrusive measure of both cognitive ability and self-enhancement bias (Paulhus, Harms, Bruce, & Lysy, in press). The task requires rating the familiarity of 90 persons, events, and things, 20% of which do not exist. Signal detection formulas were then calculated to index accuracy of general knowledge (cognitive ability) and response bias (knowledge self-enhancement). In our sample, the alpha reliabilities for accuracy and bias indexes were .84 and .93, respectively.

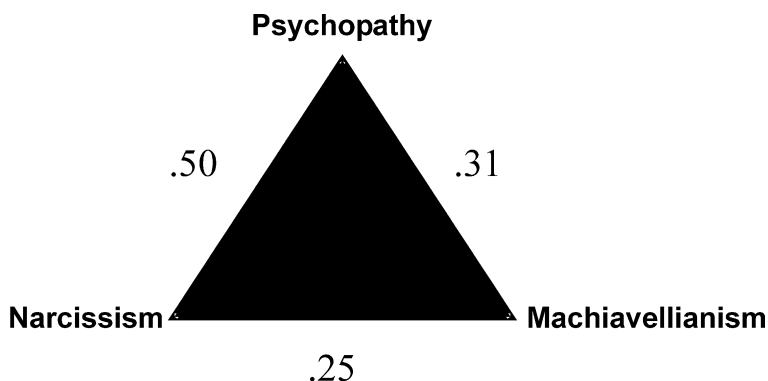
### 3. Analysis and results

Males scored significantly higher on all three of the Dark Triad: Biserial correlations were .11, .21, and .40, for NPI, Mach IV, and SRP, respectively (all significant,  $p < .05$ , two-tailed). Within gender, however, the correlational patterns with external variables were remarkably similar: Therefore, we pooled the data across gender. The measures overlapped considerably, as evident from Fig. 1. Nonetheless, the maximum inter-correlation of .50 suggests that they cannot be considered equivalent. Even disattenuated, the highest correlation—that between psychopathy and narcissism—reaches only .61.

*Big Five traits.* In Table 1, several correlations between Big Five scores and the Dark Triad measures reached significance using two-tailed tests,  $p < .01$ . Agreeableness showed correlations of  $-.36$ ,  $-.47$ , and  $-.25$ , for narcissism, Machiavellianism, and psychopathy, respectively. Narcissists and psychopaths also tended to have higher Extraversion (.41 and .34) and Openness scores (.38 and .24). Machiavellians and psychopaths showed low scores on Conscientiousness ( $-.34$  and  $-.24$ ). Finally, psychopaths tended to report lower levels of Neuroticism ( $-.34$ ).

*Cognitive ability.* Table 1 shows small positive correlations of both cognitive ability measures with narcissism but no links with Machiavellianism or psychopathy. After separating the IQ items into verbal and nonverbal subscales, a discrepancy score was calculated by subtracting the standardized verbal from the standardized nonverbal subscale. Table 1 shows significant positive correlations of the difference score with Machiavellianism (.20) and psychopathy (.13), indicating a higher nonverbal IQ score relative to verbal.

*Self-enhancement bias.* Over-claiming bias was operationalized as the signal detection parameter ( $'c'$ ) that indexes any claim of familiarity with an



N = 245. All correlations significant at  $p < .001$ , two-tailed.

Fig. 1. Correlations among measures of narcissism, Machiavellianism, and psychopathy.

Table 1  
Correlations of the Dark Triad with the Big Five, cognitive ability, and self-enhancement

	Narcissism	Machiavellianism	Psychopathy
<i>Big Five Inventory</i>			
Extraversion	<b>.42</b>	–.05	<b>.34</b>
Agreeableness	–.36	–.47	–.25
Conscientiousness	–.06	–.34	–.24
Neuroticism	.02	.12	–.34
Openness	<b>.38</b>	–.03	<b>.24</b>
<i>Cognitive ability</i>			
OCQ accuracy index	.09	.04	.09
IQ test	<b>.15</b>	.04	.05
Verbal–nonverbal discrepancy	.05	<b>.20</b>	<b>.13</b>
<i>Self-enhancement</i>			
Discrepancy of self-rating vs. IQ test	<b>.24</b>	–.02	<b>.14</b>
Over-claiming bias index	<b>.17</b>	.08	.09

Note.  $N = 245$ . All correlations in bold are significant at  $p < .05$ , two-tailed.

OCQ item, regardless of its true existence. Over-claiming correlated significantly with narcissism (.17), but not with Machiavellianism or psychopathy (see Table 1). The OCQ accuracy index ( $d'$ ) was unrelated to any of the Dark Triad variables.

A second measure of self-enhancement was calculated by partialing IQ scores out of self-rated intelligence using regression analysis (see Paulhus & John, 1998). This residual represents the discrepancy between self-ratings and objective performance. As Table 1 shows, narcissists and, to a lesser extent, psychopaths tended to overestimate their intelligence ( $r_s = .24$  and  $.14$ ), whereas Machiavellians did not.

#### 4. Discussion

Our goal was to evaluate the similarities and differences among the *Dark Triad* of personality traits: narcissism, Machiavellianism, and psychopathy. Our data do not support the contention that, when measured in normal populations, these three constructs are equivalent. The intercorrelations were all positive and ranged from .25 to .50. Their distinctiveness became most apparent in our examination of the external correlates, including both self-report and performance measures. Their locations in the five factor space of personality revealed only one commonality across the triad, namely, low agreeableness. Both narcissism and psychopathy were also associated with extraversion and openness: Thus they fall in the circumplex quadrant labeled “unmitigated agency” (Helgeson & Fritz, 1999; Paulhus & John, 1998). Also consistent, Machiavellianism and psychopathy were

negatively associated with conscientiousness, a communal trait. Finally, only psychopaths were low on neuroticism, consistent with their traditional characterization as lacking anxiety (Hare, 1991).

On two objective measures, narcissists exhibited the most self-enhancement, followed by the psychopaths. The narcissism finding replicates previous research (John & Robins, 1994; Paulhus, 1998) but the establishment of self-enhancement in subclinical psychopaths is novel. In contrast, Machiavellians showed no sign of self-enhancement. This difference is consistent with previous evidence that Machiavellians are more grounded, or reality-based, in their sense of self (Christie & Geis, 1970), whereas narcissists have a strong self-deceptive (i.e., low insight) component to their personality (Raskin et al., 1991; Paulhus, 1998). Such grandiosity and poor insight have also been noted in clinical-range psychopathy (Hart & Hare, 1998).

The only association with cognitive ability was the small positive correlation between IQ and narcissism. However, we did find significant associations of psychopathy and Machiavellianism with a relatively higher nonverbal to verbal IQ score. A breakdown on ethnicity and gender indicated the strongest correlate of this difference score ( $r = .27$ ) was psychopathy in males of European heritage (i.e., white people with dark personalities). This finding is consistent with previous work showing that a parallel performance-verbal difference score is higher in delinquent than in non-delinquent adolescents (e.g., Lynam, Moffitt, & Stouthamer-Loeber, 1993) and higher in psychopathic than non-psychopathic delinquents (Gretton, 1998). These samples, too, were primarily white males.

The tendency for dark personalities to exhibit relatively higher levels of nonverbal IQ is intriguing but the implications are unclear. The finding defies the stereotype of the smooth talking manipulator but supports the notion of a complex intellectual deficit. One possibility is that the frustration arising from an inability to communicate one's ideas eventuates in more malevolent interpersonal strategies. Another possibility is some subtle neurological deficit.

As for fundamental personality features, our findings suggest that, in non-clinical samples, members of the Dark Triad share a common core of disagreeableness. Thus the root of their social destructiveness is disturbingly normal - even banal. In combination with disagreeableness, the minimal anxiety of psychopaths may make them the most treacherous of the three - even within the normal range of personality found in our sample. Our more recent work has supported this fear. A wide variety of self-report and behavioral measures of antisocial behavior were significantly predicted by psychopathy but not by Machiavellianism or narcissism (Paulhus & Williams, 2002; Williams & Paulhus, 2002).

Which of the triad is most maladaptive? Our view is that no personality trait is universally adaptive or maladaptive (Paulhus, Fridhandler, & Hayes, 1997). Indeed, Machiavellians and narcissists may be more of an interper-

sonal irritant than a threat: Data suggest that such characters are a mixed blessing in personal life (Robins & Beer, 2001), interpersonal life (Paulhus, 1998), and some organizational contexts (Hogan, Raskin, & Fazzini, 1990; Robins & Paulhus, 2001). Adaptive interpersonal correlates of subclinical psychopathy may be more difficult to find. Their positive self-view and lack of anxiety, however, can be viewed as adaptive in an intrapsychic sense (Taylor & Armor, 1996).

To summarize, our comparison of the Dark Triad of personalities does not support the proposition that they are equivalent in normal populations. Even in non-forensic, non-pathological, high-achievement populations, they are distinctive enough to warrant separate measurement.

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