People With Dark Personalities Tend to Create a Physically Attractive Veneer

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Abstract

Which personality traits are associated with physical attractiveness? Recent findings suggest that people high in some dark personality traits, such as narcissism and psychopathy, can be physically attractive. But what makes them attractive? Studies have confounded the more enduring qualities that impact attractiveness (i.e., unadorned attractiveness) and the effects of easily manipulated qualities such as clothing (i.e., effective adornment). In this multimethod study, we disentangle these components of attractiveness, collect self-reports and peer reports of eight major personality traits, and reveal the personality profile of people who adorn themselves effectively. Consistent with findings that dark personalities actively create positive first impressions, we found that the composite of the Dark Triad—Machiavellianism, narcissism, and psychopathy—correlates with effective adornment. This effect was also evident for psychopathy measured alone. This study provides the first experimental evidence that dark personalities construct appearances that act as social lures—possibly facilitating their cunning social strategies.

Physical attractiveness is important in many life domains (Gangestad & Scheyd, 2005), but it is especially important in relationship-initiation contexts where first impressions are especially relevant (Li & Kenrick, 2006; Walster, Aronson, Abrahams, & Rottman, 1966). People with socially aversive tendencies, such as people high in narcissism (e.g., arrogance; Holtzman & Strube, 2010) and psychopathy (e.g., recklessness; Fowler, Lilienfeld, & Patrick, 2009), tend to physically attract people during impression formation. One other trait that is commonly grouped with narcissism and psychopathy, which is called Machiavellianism (e.g., guile), provides a possible third (yet untested) correlate of physical attractiveness. Together, these three traits are called the *Dark Triad* of personality (Jonason, Li, Webster, & Schmitt, 2009; Jonason & Webster, 2010; Paulhus & Williams, 2002). In this article, we explore how exactly the Dark Triad and other traits are linked to attractiveness. Specifically, we explore why at least some of these dark personality traits are associated with physical attractiveness. Is the attractiveness due to something enduring about the appearance of people high in the Dark Triad or is it due to something more fleeting that people high in the Dark Triad strategically manipulate on a daily basis?

Without experimentally manipulating personal appearance, answering this question is virtually impossible. We could find only one study on personality that appropriately distinguished between the enduring and the fleeting aspects of attractiveness (Diener, Wolsic, & Fujita, 1995), and the study solely explored the relationship between attractiveness and well-being. One

likely reason for this gap in the literature is that this research requires meticulously peeling away participants' façade.

Partially out of convenience, attractiveness is much more commonly studied by ignoring the distinction between enduring and fleeting components, as researchers typically ask raters to provide attractiveness ratings of people who are dressed in their usual way (Feingold, 1992). This is referred to as *adorned attractiveness*. As is the case in everyday life, some targets wear fancy clothing, makeup, and luxurious items that plausibly enhance personal appearance (Sedikides, Cisek, & Hart, 2011; Sedikides, Gregg, Cisek, & Hart, 2007; Sundie et al., 2011), while others adorn themselves minimally.

A key problem with adorned attractiveness studies is that, when people are adorned, multiple confounded components of attractiveness can influence observers' ratings. In our study, we fully isolate two of these components. One component is *unadorned attractiveness*—the less modifiable and more enduring component of attractiveness, which involves physical traits like facial symmetry. If unadorned attractiveness is associated with certain personality traits, the results would help address the hypothesis that such individual differences may

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have been evolutionarily selected together or may have developed together (Holtzman, Augustine, & Senne, 2011; Holtzman & Strube, 2011).

Another component of attractiveness is the more fleeting *effective adornment*, the degree to which one exhibits adorned attractiveness above and beyond that which can be expected given the degree to which one exhibits unadorned attractiveness. If effective adornment is associated with certain personality traits, the results suggest that individuals with those traits may consciously or unconsciously strategically manipulate their appearance to become more (or in rarer cases, less) physically attractive. For example, people who are interested in establishing new relationships, which is often the case for people high in the Dark Triad (e.g., Campbell & Campbell, 2009; Jonason & Kavanagh, 2010), may be more inclined to adorn themselves in ways that are attractive to other people. Effective adornment is interesting because people can manipulate it on a daily basis (e.g., when preparing for the day), and because cultural factors such as style can influence it (Sedikides et al., 2007).

A few recent adornment studies have identified some interesting cues of narcissism in particular that may be linked to effective adornment (Back, Schmukle, & Egloff, 2010; Vazire, Naumann, Rentfrow, & Gosling, 2008), such as wearing flashy clothing or (women) showing cleavage. Importantly, however, these studies did not manipulate personal appearance, nor analyze unadorned appearance, and thus did not differentiate unadorned and adorned components of attractiveness. Our study offers a way to distinguish these components of attractiveness and furthermore it explores many traits besides narcissism. To situate our results within the larger literature, we reveal the links between these components of attractiveness and eight major personality traits (the Dark Triad and the Big Five), as well as the Dark Triad composite that Jonason and colleagues (2009) used.

Method

Participants: Targets

Participants in this study were part of a larger study (Holtzman, 2011; Holtzman et al., 2011). The attractiveness ratings that were used as the outcome measures in this study have not been published elsewhere. Participants were 111 undergraduates (64% female) enrolled at a Midwestern university in the United States, and were compensated with partial course credit. The average age was 19.35 ($SD = 1.20$). This sample was 67% Caucasian, 23% Asian, 8% African American, and 2% from another racial group.

Overview of Procedures

To enable the partitioning of attractiveness components, two types of full body length photographs were taken: adorned and unadorned. In the adorned condition, participants were simply photographed in the state in which they entered the lab. The goal of capturing the unadorned condition was to put people

into the most neutral and yet natural state possible, minimizing their ability to create and manipulate physical attractiveness impressions (e.g., by presenting alluring hairstyles). In this unadorned condition, participants changed into gray sweatpants and a gray T-shirt. Each person was instructed to remove makeup (using remover) and set aside adornments (e.g., jewelry, eye glasses). Participants with long hair were also asked to pull their hair back behind their head (e.g., using rubber bands), to minimize hairstyle effects. Men shaved their beards. Participants were asked to give a neutral facial expression and look straight at a digital camera. These photographs were shown to unacquainted observers who rated the physical attractiveness of the targets. This allowed us to define effective adornment as the residuals resulting from the regression equation in which adorned attractiveness (y-axis) is related to unadorned attractiveness (x-axis). Conceptually, effective adornment is the attractiveness in the adorned state, controlling for attractiveness in the unadorned state. Finally, to bolster the validity of our personality assessments, we obtained peer reports of personality in addition to self-reports.

Self-Reports

Table 1 contains full descriptive statistics for the self-reports, including the number of items, Likert-type scales, scale anchors, means, standard deviations, and reliabilities. The Dark Triad traits were assessed using the Mach-IV (Christie & Geis, 1970), the Narcissistic Personality Inventory-40 (NPI-40; Raskin & Terry, 1988), the Narcissistic Personality Disorder (NPD) subscale of the Multisource Assessment of Personality Pathology (MAPP; Oltmanns & Turkheimer, 2006), and the Self-Report Psychopathy scale (SRP; Paulhus, Neumann, & Hare, in press). The average reliability coefficient was .83.

Self-reports of the Big Five personality traits were obtained using the Analogue for Multiple Broadband Inventories (AMBI; Yarkoni, 2010). The average reliability coefficient was .86.

Participants: Peers

The targets provided e-mail addresses of up to 10 peers (e.g., friends from college) who would provide personality ratings without compensation. Targets had an average of 2.98 peers provide reports about them (peer $N = 331$). The peers were approximately the same age as the targets ($M = 19.99$, $SD = 1.71$) and most of them knew the targets well ($M = 7.23$, $SD = 1.48$, on a scale of 1 [*not very well*] to 9 [*very well*]).

Peer Reports

Table 1 contains the descriptive statistics for the peer reports. Machiavellianism, narcissism, and psychopathy were assessed using a custom peer-report measure. An example Machiavellianism item ''is strategic, manipulative about people''; an example narcissism item ''has high vanity; is conceited''; and

Table 1. Self-Reports and Peer-Reports Information

	Openness	Conscientiousness	Extraversion	Agreeableness	Neuroticism	Machiavellianism	Narcissism	NPD	Psychopathy
Self-reports									
Scale information									
Scale name	AMBI	AMBI	AMBI	AMBI	AMBI	Mach-IV	NPI-40	MAPP	SRP-III
Number of items	32	24	34	20	32	20	40	11	64
Likert-type scale	1–11	1–11	1–11	1–11	1–11	1–6	1–2	0–100	1–5
Scale anchors	NAA to VM	NAA to VM	NAA to VM	NAA to VM	NAA to VM	SDA-SA	Forced Ch.	0–100%	SDA-SA
Mean	7.76	6.67	7.11	7.17	5.51	3.10	1.32	28.16	2.17
SD	1.19	1.38	1.50	1.13	1.30	0.46	0.17	12.11	0.40
α	0.85	0.87	0.92	0.85	0.81	0.80	0.85	0.76	0.91
Peer reports									
Scale information									
Scale name	TIPI	TIPI	TIPI	TIPI	TIPI	Custom	Custom	MAPP	Custom
Number of items	2	2	2	2	2	6	11	11	4
Likert-type scale	1–9	1–9	1–9	1–9	1–9	1–9	1–9	1–5	1–9
Scale anchors	SDA-SA	SDA-SA	SDA-SA	SDA-SA	SDA-SA	SDA-SA	SDA-SA	0–100%	SDA-SA
Mean	7.03	6.99	6.32	6.91	3.65	4.27	3.85	1.87	2.56
SD	1.43	1.64	1.92	1.68	1.93	0.96	1.25	0.64	1.16
α	0.81	0.63	0.76	0.76	0.81	0.34	0.80	0.79	0.45
ICC[1,1]	0.84	0.82	0.79	0.83	0.16	0.35	0.22	0.86	0.55
ICC[1, k]	0.95	0.94	0.94	0.95	0.42	0.67	0.51	0.95	0.82

Note. Alpha calculations for peer reports were based on the peers for whom we obtained the most reports (opposite-sex friends from college). ICC = intraclass correlation coefficient; AMBI = Analogue for Multiple Broadband Inventories; MAPP = Multisource Assessment of Personality Pathology; NAA to VM = not at all to very much; SDA-SA = strongly disagree to strongly agree; TIPI = Ten Item Personality Inventory; SRP = Self-Report Psychopathy scale; NPD = narcissistic personality disorder; Ch. = choice.

an example psychopathy item is ''hurts people; appears reckless.'' NPD was assessed using the peer-report version of the MAPP scale. The average reliability coefficient was .60.

Reports of the Big Five personality traits were obtained using the Ten Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003). The average reliability coefficient for these five measures was .75.

Consistency Between Self-Reports and Peer Reports

To reduce the error in personality trait estimates, we aimed to collapse the data across sources (e.g., see Hofstee, 1994, for more information). One requirement for collapsing self-reports and peer reports is a nontrivial correlation between the two. En route to calculating these correlations, for each trait and for each target, we averaged the peer-report scores. Second, we correlated the means of these peer reports with the self-report scores, trait by trait. The self–peer correlations for the nine scales were all significant and medium-to-large in size (rs were .23 to .61, all ps < .05); therefore, we collapsed them.

Attractiveness Ratings by Unacquainted Observers

People who provided physical attractiveness ratings (13 men, 37 women) were college students (age: $M = 19.35$, $SD = 1.00$) who participated in exchange for course credit. They provided ratings of opposite-sex targets shown in full-length photographs in both conditions (unadorned, adorned), counterbalanced. As presented, the unadorned photographs were 7.5 × 7.5 cm; these photographs were framed just below the toes and were cropped just above the eyebrows—the latter in order to further minimize the influence of hairstyle on attractiveness ratings. As presented, the adorned photographs were 7.5 cm horizontally and 10 cm vertically depicting participants head to toe. The additional 2.5 cm on the vertical axis allowed for the adorned head and hair to be visible in full; this additional space did not alter the appearance of the size of the participants, as we controlled for apparent size of participants across conditions. Observers were asked to withhold ratings of known targets. Based on our 0 (*not at all attractive*) to 10 (*very attractive*) scale, the ratings for the adorned condition ($M = 4.13$, $SD = 1.11$) were higher than the ratings for the unadorned condition ($M = 3.49$, $SD = 0.73$), $t(110) = 8.30$, $p < .001$, as expected.

To determine the reliability of attractiveness scores from multiple raters with some missing values, we used Brown's CFA recommendations (2006, chapter 8). For women rating men, solely for the purpose of estimating reliability, we selected the 13 women who provided the most complete data (96%), thus matching the sexes on number of raters (13 each). Male raters provided more complete data (99%). For women rating men, reliability for the adorned condition was .89 and for the unadorned condition it was also .89. For men rating women, reliability magnitudes were .89 and .79, respectively. Thus, the average reliability for the attractiveness ratings was .87.

Results

Correlations of Personality With Unadorned and Adorned Attractiveness

First, to obtain an estimate of the relationships between personality and attractiveness under each of the conditions, we computed correlations; as the sexes were rated by different groups of (opposite sex) observers who may assign different meaning to the numbers on the Likert-type rating scales, all analyses presented controlled for sex. Results are presented in Table 2. None of the correlations of personality traits with unadorned attractiveness exceeded the absolute value of .10, except for extraversion ($r = +.23$, $p = .02$). The extraversion effect is consistent with and extends some previous literature (Feingold, 1992; Lukaszewski & Roney, 2011). Also similar to previous findings (Holtzman & Strube, 2010), the association between the Dark Triad composite and adorned attractiveness was .20, which is one of the largest known personality–attractiveness effects (cf. Feingold, 1992).

Links Between Personality and Effective Adornment

To analyze the relationship between personality and effective adornment, it was necessary to first isolate this value. Conceptually, effective adornment is the increment in attractiveness strictly due to dressing up (partialing out and thus controlling for one's unadorned attractiveness). The crucial analysis relates effective adornment to personality; statistically, this is captured by semipartial correlations.

To establish the comparability of the models for men and women, who were rated by different groups, we used Preacher's (2006) approach that allows for constraining semipartial effects to equality across groups (in our case, participant sex). All of the models for men and women were comparable, as indicated by the normal theory weighted least squares χ^2 values (all $\chi^2 \leq 1.65$, all ps $\geq .43$). Given comparability across groups, Preacher recommends constraining the effects to equality across groups, which we did; see the right columns of Table 2.

All three Dark Triad traits were significantly positively related to effective adornment. The effect for the Dark Triad composite also held true for self-reports only and peer reports only (see the bottom two panels of Table 2). Likewise, effective adornment was linked to psychopathy across analyses. Finally, at the combined level of analysis, compared to unconscientious people, conscientious people tended to adorn themselves ineffectively (relative to how other people adorned themselves). However, the conscientiousness effect was inconsistent when we explored it in single-source data. Thus, we do not discuss it further, but it is a potential topic for future research.

Discussion

The primary aim of this study was to explore why people with dark personality traits are physically attractive. Three interrelated traits termed the *Dark Triad* were significantly positively correlated with effective adornment (i.e., dressing in ways that

Table 2. Effects Linking Personality to the Three Attractiveness Scores, Controlling for Sex

	Unadorned Attractiveness		Adorned Attractiveness		Effective Adornment	
	β	p	β	p	Sr	p
Based on the Combined Self-Reported and Peer-Reported Personality Data						
Openness	.04	.67	−.07	.44	−.15	.10
Conscientiousness	.08	.41	−.08	.42	−.**21**	.02
Extraversion	**.23**	.02	**.25**	<.01	.12	.19
Agreeableness	.06	.51	−.04	.66	−.14	.13
Emotional stability	−.06	.52	−.10	.29	−.09	.34
Machiavellianism	.04	.67	.18	.06	**.23**	<.01
Narcissism	.09	.33	.19	.05	**.18**	.05
MAPP NPD only	**.20**	.03	**.26**	<.01	.15	.09
Normal narcissism only	.09	.35	.18	.07	.16	.08
Psychopathy	−.07	.45	.12	.20	**.28**	<.01
Dark Triad composite	.03	.78	**.20**	.03	**.28**	<.01
Based on self-reported personality data only						
Openness	.01	.92	−.12	.26	−.**19**	.04
Conscientiousness	.00	.99	−.09	.36	−.14	.14
Extraversion	**.18**	.04	**.21**	.03	.07	.43
Agreeableness	−.12	.19	−.**22**	.03	−.**18**	.05
Emotional stability	−.06	.51	−.08	.43	−.08	.42
Machiavellianism	.10	.27	.18	.06	.17	.06
Narcissism	**.20**	.03	**.26**	<.01	.15	.09
MAPP NPD only	.15	.10	**.19**	.04	.11	.25
Normal narcissism only	**.19**	.04	**.26**	<.01	.15	.09
Psychopathy	.08	.43	**.21**	.04	**.24**	<.01
Dark Triad composite	.08	.11	**.27**	<.01	**.24**	<.01
Based on Peer-Reported Personality Data Only						
Openness	.05	.55	−.01	.94	−.06	.52
Conscientiousness	.13	.17	−.04	.65	−.**22**	.01
Extraversion	**.21**	.02	**.26**	<.01	.14	.12
Agreeableness	**.23**	.02	.13	.17	−.07	.47
Emotional stability	−.04	.65	−.11	.25	−.12	.19
Machiavellianism	−.03	.74	.11	.28	**.20**	.03
Narcissism	−.05	.57	.06	.50	.15	.10
MAPP NPD only	−.05	.60	.03	.77	**.18**	.05
Normal narcissism only	−.05	.57	.10	.32	.10	.26
Psychopathy	−.**19**	.04	−.01	.92	**.20**	.03
Dark Triad composite	−.11	.25	.08	.43	**.23**	<.01

Note. The *p* values for the semipartial correlations (*sr*) were computed based on the Wald test (squared *t*). This squared *t* was treated as a chi-square (*df* = 1), and the *p* value was from that. For all *sr* models that combined self-reports and peer reports, root mean square error of approximation (RMSEA) = 0.00, Comparative Fit Index (CFI) = 1.00. MAPP = Multisource Assessment of Personality Pathology; NPD = narcissistic personality disorder. Most single-source models had imperfect fit.

make oneself more attractive): Machiavellianism, narcissism, and psychopathy. Of the three aspects of the Dark Triad, the effect for psychopathy—arguably the "darkest" trait—was the most robust.

Why are Dark Triad traits associated with more effective adornment? Social or intrapsychic explanations are perhaps the most viable: When people high in Dark Triad traits dress up, they may experience greater increments in self-esteem or derive more satisfaction from the additional attention they receive, compelling them to continue dressing well (Morf & Rhodewalt, 2001). An alternative theory is that dressing well may allow members of the Dark Triad to obtain romantic partners, especially short-term ones (Harris, Rice, Hilton, Lalumiere, & Quinsey, 2007). Converging on the short-term

mating interpretation, Holtzman, Vazire, and Mehl (2010) demonstrated that narcissists tend to use more sexual words in naturalistic settings—perhaps to entice potential mates. Such traits predict real-world behaviors, which in turn may help spark short-term relationships.

It is important to note that, although extant data are consistent with the idea that dark personalities are oriented toward short-term mating and that these personalities behave in ways that may facilitate that strategy (Jonason & Kavanagh, 2010), due to the near-zero correlations between the Dark Triad and unadorned attractiveness in the current research, the evidence in our study is inconsistent with the prediction that dark personalities evolved to exhibit higher levels of unadorned attractiveness (Holtzman & Strube, 2011). Future research should determine whether more

specific types of attractiveness (e.g., short-term mating una-dorned physical attractiveness vs. long-term mating unadorned physical attractiveness) correlate differently with particular personality traits (for a similar distinction, see Gangestad, Garver-Apgar, Simpson, & Cousins, 2007). Some of these hypotheses are being tested currently (Lyons et al., 2012).

One potential misinterpretation of the unadorned attractiveness results would be that there is no enduring physical signature associated with the Dark Triad; in fact, studies have demonstrated that the Dark Triad do tend to have a distinct physical signature (e.g., Holtzman, 2011; Vazire et al., 2008). Integrating the available evidence: People high in the Dark Triad (a) tend to have a noticeable and relatively enduring physical signature, but (b) the enduring features tend to be approximately average in attractiveness, and (c) the extent to which such personalities are physically attractive is significantly influenced by personal appearance modifications—which in turn may be guided and shaped by culture.

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