

# Personality and prosociality: Incremental validity of the Dark Triad over HEXACO model

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## INTRODUCTION

Prosocial behavior covers the broad range of actions intended to benefit others rather than oneself. Research related to dispositional determinants of prosocial behavior showed that the best predictor of prosocial behavior is personality trait Honesty-Humility (HH) represented in the HEXACO model, more specifically, the HH facets Fairness and Greed-Avoidance (Hilbig et al., 2014). The low pole of the HH was found to be essentially identical to the common core of the Dark Triad (DT; i.e. Machiavellianism, subclinical narcissism and psychopathy), which has been linked to callousness, exploitation and manipulation, as well as antisocial behavior. Given the substantial overlap between the HH and the DT traits, the aim of this study was to investigate the relationship between prosocial tendencies and the “good” and the “bad” traits, comparing their contributions in predicting prosociality.

## METHOD

Data was collected within a larger on-line survey on 689 students from various universities in Croatia (552 female and 137 male) with the mean age 22.04 ( $sd = 2.94$ ).

All variables were assessed via self-report measures. Participants estimated to which extent they agree or disagree with every item on a five-point Likert scale (1=Totally disagree; 5=Totally agree) or how often they performed a certain behavior (1=never, 5=very often), and the higher score indicates higher level of the trait/subscale.

**Prosocial Personality Battery (PBS; Penner, 2002)** – 30 item version consists of 7 subscales: Social Responsibility, Empathic Concern, Perspective Taking, Personal Distress, Mutual Moral Reasoning, Other-Oriented Reasoning, Self-reported Altruism.

**Short Dark Triad scale (SD3; Johnes & Paulhus, 2014)** – 27 items measure 3 subscales: Machiavellianism, Narcissism and Psychopathy.

**HEXACO-60 (Ashton & Lee, 2009)** measures HEXACO personality traits: Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness and Openness to Experience.

\*\*  $p < .01$

\*  $p < .05$

**Table 2.** Hierarchical regressions: the HH facets and the DT dimensions as predictors of prosociality

	$\beta$	t	Model summary
<b>Step 1</b>			
Sex	-.136	-3.638**	Adj. $R^2 = .042$ $F(2, 686) = 16.016^{**}$
Age	.176	4.680**	( $MS = 1703.609, 103.37$ )
<b>Step 2</b>			
Sex	-.084	-2.419*	Adj. $R^2 = .193$ $F(6, 682) = 28.427^{**}$
Age	.161	4.682**	$\Delta R = .155^{**}$
s	.117	3.088**	( $MS = 2546.626, 89.585$ )
f	.205	5.738**	
g-a	.174	4.489**	
m	.112	2.898**	
<b>Step 3</b>			
Sex	-.050	-1.556	Adj. $R^2 = .320$ $F(9, 679) = 36.953^{**}$
Age	.158	4.967**	$\Delta R = .129^{**}$
s	.025	.698	( $MS = 2790.065, 75.502$ )
f	.129	3.845**	
g-a	.113	3.121**	
m	.035	.909	
Mach	-.232	-5.516**	
Narc	.026	.726	
Psycho	-.246	-6.275**	

Note: N = 689. Sex: 1 – female, 2 – male.

MS = Mean square for the particular F-value.

s = Sincerity; f = Fairness; g-a = Greed Avoidance; m = Modesty; Mach = Machiavellianism; Narc = Narcissism; Psycho = Psychopathy

## RESULTS

The relationship between prosociality and personality traits was investigated through correlation matrix (Table 1.), while the contribution of the “good” and the “bad” traits in predicting prosociality was investigated through hierarchical regression analyses presented in Tables 2. and 3.

**Table 1.** Zero-order correlations between PBS and the personality traits

	PBS	HH	s	f	g-a	m	E	X	A	C	O	Mach	Narc	Psycho
<b>PBS</b>	(.778)													
<b>HH</b>	.402**	(.768)												
<b>s</b>	.272**	.766**	(.669)											
<b>f</b>	.268**	.505**	.273**	(.679)										
<b>g-a</b>	.289**	.689**	.309**	.105**	(.648)									
<b>m</b>	.241**	.656**	.286**	.054	.424**	(.508)								
<b>E</b>	.172**	-.004	-.078*	.036	.040	.019	(.814)							
<b>X</b>	.187**	.081*	.053	.134**	.027	.011	-.178**	(.811)						
<b>A</b>	.339**	.264**	.150**	.122**	.207**	.226**	-.093*	.072	(.749)					
<b>C</b>	.178**	.063	.124**	.133**	-.017	-.089*	-.026	.203**	.045	(.759)				
<b>O</b>	.267**	.104**	.073	.094*	.092*	.018	-.101**	.087*	.061	.082*	(.775)			
<b>Mach</b>	-.470**	-.527**	-.394**	-.240**	-.363**	-.383**	-.146**	-.154**	-.326**	-.075*	-0.06	(.769)		
<b>Narc</b>	-.172**	-.403**	-.290**	-.030	-.294**	-.431**	-.130**	-.422**	-.185**	.123**	.111**	.308**	(.660)	
<b>Psycho</b>	-.449**	-.382**	-.292**	-.244**	-.228**	-.240**	-.159**	-.160**	-.427**	-.191**	-.024	.569**	.282**	(.734)

Note: N = 689. Cronbach's alpha appears in the diagonal.

PBS = Prosocial Personality Battery; HH = Honesty-Humility; s = Sincerity; f = Fairness; g-a = Greed Avoidance; m = Modesty; E = Emotionality, X = Extraversion; A = Agreeableness; C = Conscientiousness; O = Openness to Experience; Mach = Machiavellianism; Narc = Narcissism; Psycho = Psychopathy

**Table 3.** Hierarchical regressions: HEXACO and the DT dimensions as predictors of prosociality

	$\beta$	t	Model summary
<b>Step 1</b>			
Sex	-.136	-3.638**	Adj. $R^2 = .042$ $F(2, 686) = 16.016^{**}$
Age	.176	4.680**	( $MS = 1703.609, 103.37$ )
<b>Step 2</b>			
Sex	-.010	-.298	Adj. $R^2 = .360$ $F(8, 680) = 49.271^{**}$
Age	.118	3.807**	$\Delta R = .322^{**}$
HH	.290	8.996**	( $MS = 3503.305, 71.103$ )
E	.243	6.912**	
X	.140	4.379**	
A	.258	8.051**	
C	.108	3.443**	
O	.208	6.652**	
<b>Step 3</b>			
Sex	-.003	-.076	Adj. $R^2 = .407$ $F(11, 677) = 43.897^{**}$
Age	.119	3.961**	$\Delta R = .049^{**}$
HH	.151	4.007**	( $MS = 2890.614, 65.894$ )
E	.181	5.192**	
X	.126	3.471**	
A	.164	4.868**	
C	.089	2.903**	
O	.218	7.154**	
Mach	-.171	-4.276**	
Narc	-.059	-1.491	
Psycho	-.137	-3.440**	

Note: N = 689. Sex: 1 – female, 2 – male.

MS = Mean square for the particular F-value.

HH = Honesty-Humility; E = Emotionality, X = Extraversion; A = Agreeableness; C = Conscientiousness; O = Openness to Experience; Mach = Machiavellianism; Narc = Narcissism; Psycho = Psychopathy

Zero-order correlations between the criterion and the predictor variables indicated the significant positive relations between prosociality and HEXACO personality traits, and negative with the DT. Partial correlations (controlling for HEXACO dimensions) between prosocial tendencies and DT were -.235, -.120 and -.213 for Machiavellianism, narcissism and psychopathy, respectively, while the partial correlation (controlling for DT) between prosocial tendencies and HH was .192.

Hierarchical regression analysis showed that the HH facets explain 15% of prosocial tendencies variance. The introduction of DT explained additional 13% of the variance after controlling for HH facets. In the final model psychopathy and Machiavellianism had higher Beta values than Fairness and Greed-Avoidance, as indicated in Table 2.

HEXACO dimensions explained 32% of prosocial tendencies variance, while the DT explained additional 5% variance. All personality variables expect narcissism had a significant contribution in explaining prosocial tendencies (Table 3.)

## CONCLUSION

Results of this study showed that the “bad” traits explain prosociality above and beyond the “good” traits as well as the whole HEXACO model, emphasizing the importance of the DT in the personality space.

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