

The nomological net of personality constructs, creative personality constructs, intelligence, and creative potential.

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Study 1. PC analysis

PC analysis with promax rotation. Nine components explained 57.4%.

	N	A	Mot	O	E	C	Int	DivThink	NeedOrig
DivThink Orig								.906	
DivThink Flex								.914	
DivThink Freq								.967	
Gen ability							.849		
Raven							.731		
Number series							.759		
Spatial							.571		
Vocabulary							.687		
Impersonal or	.398		-.606						
Confidence	.422		-.446						
Neuroticism	.737								
MoodSwings	.561								
nRecogn					.625				
Exhibitionism					.758				
nPower			.489		.391				
Extraversion					.665				
Boundaries	.300			.683					
Fantasy				.790					
Playfulness				.687					
Absorption				.720					
PrefComplex				.581					
Friendly		.687							
Considerate	.340	.669	.301						
Problfind(R)		-.636							
Autonomy			.565						
nAch			.748						
Novelty seeking			.634	.323					
Goal oriented			.682						
Persistence			.754						
Rule orient								.790	
Rigidity							-.325	.463	
OppConvent								.645	
Reorganizing				.457					
TolAmb							-.384		
Adaptive				.347					-.302
n1	.808								
n2	.667								
n3	.819								
n4	.774								
n5	.367				.438	-.514			
n6	.610								
e1		.631			.339				
e2		.508			.523				
e3					.364				
e4			.347		.392				
e5					.513				
e6		.438			.404				
o1				.674					
o2				.649					
o3	.358	.353		.345					
o4			.386						.394
o5			.308	.520					
o6									
a1		.701							
a2		.640							
a3		.674							
a4		.486			-.318				
a5		.479			-.511				
a6		.655							
c1							.494		
c2							.625		
c3							.560		
c4			.421				.487		
c5			.305				.522		
c6							.717		

	N	A	Mot	O	E	C	Int	DivThink	NeedOrig
N	1,000								
A	-.345	1,000							
Mot	-.467	.329	1,000						
O	.048	.207	.180	1,000					
E	-.042	.005	.260	.269	1,000				
C	-.219	.162	.315	.035	.088	1,000			
Int	-.078	-.133	.066	.163	-.063	-.053	1,000		
DivThink	-.018	.016	.038	.001	.043	-.004	-.018	1,000	
NeedOrig	.092	-.053	-.073	.199	.107	.015	-.023	.022	1,000

Factor correlations

Study 2. PC analysis

PC analysis with promax rotation. Eight components explained 56.3%.

	N	O	Mot	A	C	E	Int	nOrig
Raven							.719	
Number ser							.749	
Spatial							.612	
Vocabulary							.631	
General ability							.821	
Impersonal or	.311		-.644					
Confidence	.472		-.359					
Neuroticism	.795							
Mood Swings	.578		-.305					
nRecogn						.518		
Exhibitionism						.750		
nPower			.586					
Extraversion						.688		
Boundaries	.379	.614						
Fantasy		.787						
Playfulness		.767						
Absorption	.301	.620						
Friendlyness				.708				
Consideration	.348			.668				
ProblFinding				.701	-.335			
Autonomy			.495					
nAch			.736					
Novelty seeking		.424	.630					
Goal oriented			.602					
Persistence			.762					
Rule oriented							.761	
PrefComplex		.554	.313				.328	
Rigidity							.592	
OppConvent							.596	
Reorganising		.361						
TolAmb		.325				-.322		
Adaptive		.365						-.312
n1	.873							
n2	.719							
n3	.792							
n4	.686							
n5	.386					-.511	.494	
n6	.560					-.356		
e1				.411			.486	
e2							.581	
e3			.300				.336	
e4			.391				.427	
e5		.333					.394	
e6							.531	
o1		.719						
o2		.685						
o3	.353	.371				.400		
o4		.312	.389					
o5		.622						
o6								
a1				.641				
a2				.694				
a3				.547	.393			
a4				.597		-.341		
a5				.477		-.323		
a6				.586				
c1						.608		
c2						.594		-.356
c3						.666		
c4			.358			.626		
c5						.662		
c6						.756		

	N	O	Mot	A	C	E	Int	nOrig
N	1,000							
O	.082	1,000						
Mot	-.449	.156	1,000					
A	-.220	.139	.184	1,000				
C	-.352	.031	.410	.208	1,000			
E	-.096	.230	.300	.076	.188	1,000		
Int	.007	.230	-.014	-.088	-.052	-.145	1,000	
nOrig	-.012	.209	.020	.042	.045	.094	-.003	1,000

Factor correlations

Background

The nomological net of normal personality constructs, creativity relevant personality constructs, intelligence, and creative potential/divergent thinking has not hitherto been studied. Investigations of the relationships among such variables may benefit our understanding of these variables' construct validity.

Objective

The aim of the study was to investigate the number of factors and the pattern of factor loadings for the included variables.

Methods

There were two studies. One had 959 participants (based on listwise deletion). The second sample had an effective sample size of 359 participants (also based on listwise deletion). Samples mainly included young males applying for officer training in the military. Age was not registered, but was assumed to be around 20.

Measures

The *NEO PI-R* (Costa & McRae, 1992) was included to assess normal personality traits.

The *CPP* (Martinsen, 2011) was included to assess creativity relevant personality traits-

Five measures of intelligence: *Raven*, *Vocabulary*, *Number series*, *Spatial/Mechanical*, and *General ability* were also included in both studies.

Two *divergent thinking tasks* were included in Study one to assess fluency, originality, and flexibility.

Results

In study one, nine factors fitted the data well. The intelligence tests defined one factor, divergent thinking another, while the seven remaining factors included personality constructs.

In Study two eight factors (but then without divergent thinking included) fitted the data well. The same pattern of factors and loadings was present also here, but without the divergent thinking factor.

Results showed that the anticipated pattern of factor loadings for the 30 NEO facets and the 27 CPP factors differed somewhat from theoretically based expectations. 5 of the CPP factors overlapped with the five-factor model, while Motivation and need for Originality made up distinct factors. The CPP factor flexibility merged with Openness, leaving the CPP with six factors rather than the 7 original.

Surprisingly, divergent thinking component did not correlate with any of the other components, while intelligence correlated with openness in both samples.

The pattern of loadings for the two personality tests and intelligence was comparable across samples.

Conclusion

The nomological net of personality, creative personality, divergent thinking, and intelligence constructs seemed to be well explained by nine factors, as could be expected by theory. The pattern of factor loadings, however, showed a somewhat different pattern than what could be expected by theory.