Study 1. PC analysis

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

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Factor correlations

Study 2. PC analysis

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

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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.

Objectives
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 589 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 & McCrae, 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 the eight factors 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 comprehensible 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.