Personality and Intelligence: Correlated or Independent?

Brianna Maxim, Claudia Villasante, Loise M. Ladrado, and Kimberly A. Barchard
University of Nevada, Las Vegas

INTRODUCTION

Personality traits and intelligence are often seen in the literature as independent constructs. However, both constructs contribute to individual variability, and the interaction of these constructs is not straightforward. For instance, studies have shown that extraversion and openness are positively correlated with intelligence (Gough & Heilbrun, 1986). Anxiety and Neuroticism are negatively correlated with intelligence (Higgins, 1997). On the other hand, conscientiousness and Agreeableness are positively correlated with intelligence (McCrae & Costa, 1997).

METHOD

Participants:

A total of 178 students (120 female, 61 male, 6 unspecified) participated in our study in return for course credit. The participants aged ranged from 19 years to 48 years (mean 21.65, SD = 3.49).

Measures:

Intelligence Tests

We used six tests to measure fluid intelligence and six tests to measure crystallized intelligence. Fluid intelligence tests included: Advanced Reading, Form Board, Number Series, Advanced Incomplete Words, Rearranged Words, and Inventive Opposites. Crystallized intelligence tests included: Inductive Reasoning, Reading, Letter Sets, Advanced Reading, Advanced Reading, and Advanced Reading.

Personality:

Within crystallized intelligence, we measured verbal ability and verbal closure. To measure verbal ability, we used the Reading Test (Thurstone, 1934), Advanced Vocabulary Test (Ekstrom et al., 1976), and Inventive Opposites (Ekstrom et al., 1976). For verbal closure, we used Incomplete Words (Ekstrom et al., 1976), Hidden Words (Ekstrom et al., 1976), and Rearranged Words (Barchard, 2003).

RESULTS

All of the Big Five Personality traits are significantly correlated with intelligence (see Table 2). Some of these correlations were positive, while others were negative. Conscientiousness was positively correlated with intelligence, while Neuroticism showed a negative relationship. Openness had positive correlations with some aspects of intelligence, and negative correlations with others. This relationship may be due to the fact that extraverted individuals often have more social interactions, which can influence their intelligence.

DISCUSSION

The purpose of the current study was to investigate whether intelligence and personality are related. We found that extraversion and openness were positively correlated with intelligence, and that agreeableness and conscientiousness will not be correlated with intelligence. We correlated the Big Five Personality Traits with intelligence using the International Personality Item Pool (IPIP) NEO-PI-R. Within crystallized intelligence, we measured verbal ability and verbal closure. As predicted, openness was positively correlated with intelligence. This makes sense: individuals who are open to new experiences and ideas are likely to be successful in positions that require more freedom or change. Extraversion had positive correlations with some aspects of intelligence and negative correlations with verbal ability. As predicted, Neuroticism, which is defined as the ability to experience emotional discomfort and negative affect, had a negative correlation with intelligence. This makes sense: individuals who are prone to anxiety and stress may have difficulty concentrating or performing well on tasks that require cognitive effort.

REFERENCES


