

Intelligence and Creativity of Polish Middle-School Students: Looking for the Threshold Hypothesis

Abstract

The presented study is devoted to the examination of the threshold hypothesis (TH), which assumes a curvilinear relation between creative abilities and intelligence. The article focuses on methodological problems, particularly on analytical strategies relevant to confirming or refuting the TH. The TH was tested on more than 100 middle-school students. Intelligence was measured by Raven's Progressive Matrices (RPM) test, and creative abilities by eight divergent production tests measuring fluency and originality of thinking. Different criteria of acceptance / rejection of the TH were applied and discussed. The TH was confirmed when the relation between creative abilities and intelligence under the threshold was greater than zero, while above the threshold it was not different from zero (the so-called A strategy). However, the TH was refuted when differences in the strength of the correlation below and above the assumed threshold of intelligence were compared (B and C strategies).

Keywords: *intelligence, creativity, creative abilities, threshold hypothesis*

Introduction

The threshold hypothesis, formulated in the 1960s (Guilford, 1967; Torrance, 1962), assumes that creativity is positively correlated with intelligence, but only when $IQ < 120$. Among people with an $IQ \geq 120$ the relation between creative abilities and intelligence diminishes or becomes statistically insignificant.