

The Effect of Family Size and Birth Order on an Individual's **g Level****ANA STIGLIC****ABSTRACT**

The objective of this study was to investigate whether the environment created by being born in a specific birth order and/or family size affects individuals' general intelligence, or **g**. Based on the phenomenon of rising Intelligence Quotient (IQ) scores observed across generations, the fact that IQ and **g** are highly correlated and that most, if not all, between-family variables have been shown not to produce the rising effect, it was hypothesized that there could be a significant difference in **g** scores of siblings of the same family and those of different sized families born in the same position.

Birth order and family size could be argued to encompass most within-family factors that result in influencing the family environment and its influence on each child within it. Each child is part of the same within-family environment, however, within this framework each individual's experience is different, accounting for the non-shared environment effects. This notion is supported by two models which attribute varying levels of IQ to children of the same family based on their birth order and family size. The Confluence and the Resource Dilution Models were discussed as possible explanations of what happens to **g** levels, should any difference between birth order and family size be uncovered.

Raven's Progressive Matrices (RPM) were used to quantify the participants' **g** levels with respect to the two research questions. Girl only families participated in this study to eliminate developmental factors between girls and boys of the same age. Siblings' scores were compared for birth-order effects and the scores of children from the various sized families were compared for family size effects. Repeated measures analysis of variance was applied to test for birth order effects. One-way analysis of variance and one sample t tests were applied to test for family size effects.

No significant birth-order effects were found, however, the pattern of achieved means increased with birth order which is in opposition to both models. The one significant finding for family

size came in the form of the second borns of two daughters outperforming the second borns of three daughters. The findings and the trends of the achieved means between all birth order and family size variant groups were examined in light of findings of previous research on this topic.