



Cypress College Birth Order and Personality Traits: A Self Reported Approach

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Introduction

This study explores the relationship between birth order and acquired personality traits in adults. There have been conflicting findings on the influence birth order has on the development of personality traits. We were interested in how family dynamics, and the role birth order has on the development of certain personality traits. Personalities were measured through the IPIP-BFM-20 questionnaire which is the abridged version of the IPIP 50-Item Sample questionnaire. The shortened version was created to conveniently administer, while aiming to maintain internal consistency, validity, and reliability of the measurements.

The purpose of our study is to examine patterns in the birth order of siblings and self reported personality traits. Owing to the external environmental factors, the results of the research around this theory are contradictory. We strive to establish a relationship between birth order and personality traits. The IPIP Big Five Markers was used to score and interpret the data once collected.

Hypotheses

We predicted that there would be similarities between one's birth order and their rating on the 20 question IPIP Big Five Marker. Oldest Born will report higher intellect traits, Middle Born will report higher agreeableness scores, while the Youngest Born will report higher extraversion scores.

Method

Participants

Participants ($N = 151$) consisted of 99 females, 51 males, and 1 who identified as other. Ages ranged from 14 to 58 years.

Measures

The short IPIP-BFM-20 questionnaire for measuring the big five (Topolewska-Siedzik et al., 2014). This version of the IPIP Big Five Marker is a 20 item questionnaire originated from Goldberg's 50-item questionnaire. It consists of 20 questions, 4 questions per each personality trait. Just as the original, this shortened version used a self-report method measuring the big five personality traits using a Likert scale format ranging from 1-Very Inaccurate to 5-Very Accurate.

Procedure

Friends, family, and acquaintances were asked to participate in this research study through social media platforms such as Instagram, Twitter, and Facebook. Participants were informed that submission of their responses were considered consent of their participation for this research study. Having one unified platform to collect data online eliminated the need for physical materials and in face interactions. Participants were not told that a comparison of birth order and measured personality traits would be done.

Results

Table 1

One-Way ANOVA Between Birth Order and Big Five Marker Personality Traits

		Sum of Squares	df	Mean Square	F	Sig.
Intellect	Between Groups	.400	3	.133	.298	.827
	Within Groups	65.701	147	.447		
	Total	66.101	150			
Emotional Stability	Between Groups	.131	3	.044	.078	.972
	Within Groups	82.833	147	.563		
	Total	82.964	150			
Conscientiousness	Between Groups	7.289	3	2.430	3.074	.030
	Within Groups	116.181	147	.790		
	Total	123.470	150			
Agreeableness	Between Groups	2.279	3	.760	1.715	.166
	Within Groups	64.679	146	.443		
	Total	66.958	149			
Extraversion	Between Groups	1.820	3	.607	1.284	.282
	Within Groups	69.436	147	.472		
	Total	71.256	150			

Note. A One-way ANOVA was conducted to determine if the self-reported responses for Big Five Marker Traits were statistically similar between the Birth Order groups. The only statistical significance was between Birth Order and Conscientiousness, $F(3,149) = 3.07$, $p = .030$.

Table 2

Descriptive Statistics of One-Way ANOVA for Birth Order and Big Five Marker Personality Traits

		N	M	SD	Std. Error	Minimum	Maximum
Intellect	ONLY	15	3.6000	.75475	.19487	2.50	4.75
	OLDEST	50	3.7050	.72261	.10219	2.50	5.00
	MIDDLE	51	3.6029	.65608	.09187	2.25	4.75
	YOUNGEST	35	3.5857	.55883	.09446	2.25	4.50
	Total	151	3.6325	.66383	.05402	2.25	5.00
Emotional Stability	ONLY	15	2.7500	.84515	.21822	1.25	4.00
	OLDEST	50	2.6650	.66165	.09357	1.00	4.25
	MIDDLE	51	2.7255	.71982	.10079	1.50	4.75
	YOUNGEST	35	2.7000	.86580	.14631	1.00	4.50
	Total	151	2.7020	.74370	.06052	1.00	4.75
Conscientiousness	ONLY	15	2.7667	1.18196	.30518	1.00	4.75
	OLDEST	50	3.4950	.84136	.11899	1.25	5.00
	MIDDLE	51	3.1765	.89623	.12550	1.25	5.00
	YOUNGEST	35	3.4000	.80028	.13527	1.50	5.00
	Total	151	3.2930	.90727	.07383	1.00	5.00
Agreeableness	ONLY	14	4.1607	.69757	.18643	2.75	5.00
	OLDEST	50	3.9300	.63495	.08980	2.50	5.00
	MIDDLE	51	3.7696	.65544	.09178	2.25	5.00
	YOUNGEST	35	4.0143	.70955	.11994	2.75	5.00
	Total	150	3.9167	.67036	.05473	2.25	5.00
Extraversion	ONLY	15	2.5333	.68051	.17571	1.50	4.00
	OLDEST	50	2.8200	.73374	.10377	1.25	4.00
	MIDDLE	51	2.9265	.66576	.09322	1.25	4.00
	YOUNGEST	35	2.8571	.65103	.11004	1.25	4.00
	Total	151	2.8361	.68923	.05609	1.25	4.00

Note. The Middle Born was the most represented, $n=51$.

Discussion

Our hypotheses were not supported based on the results of this study. Although most variables were not consistent in showing statistical significance, the one relationship that was significant is similar to what has been found by previous research. Just as Sulloway stated the oldest child had higher levels of Conscientiousness (Cullen, 2015), we found that our Oldest Child group ($M = 3.49$, $SD = 0.84$) did show the highest levels compared to the other groups. We predicted we would have similar findings as a study conducted by Rohrer et al.(2015), as they found first born participants scored higher among self-report methods for intellect and objectively measured intellect. Although we did not find a significant relationship for Intellect, Conscientiousness tends to be defined as someone who is thorough and chooses to put in the effort to do a job well. Exploring the relationship further among first borns, Intellect, and Conscientiousness may be beneficial. In the Rohrer et al. (2015) study, they were also not able to find a consistent effect of birth order position on the other Big Five Marker personality traits.

Limitations

We were not able to obtain equal representation of the birth order groups. There were proportionally more first and middle born participants. For successful results in future further research, equal group samples are crucial in ensuring an equal representation of each group. Our study used a shortened version of the 50-item IPIP Big Five Marker to measure personality traits. Inconsistencies are thought to result from shortened versions of questionnaires measuring personality (Baldasaro, R. E., Shanahan, M. J., & Bauer, D. J. 2013).

Implications

The main implication believed to be responsible for lack of support to our hypothesis would be multiple possibilities of biological predispositions and effects of outside factors on the development of personality traits. Adler (1928) mentioned one implication may result from the definition of "birth order" and one's assumed role in a family dynamic as it may not align with their biological birth order. For example, the last born sibling may take on responsibilities that would be expected of a first born sibling due to unique circumstances. There is the obvious disadvantage for the inability of manipulation for our independent variable and control for effects of outside factors. Further research should explore longitudinal studies on participants to possibly identify effects of outside factors that may be important.

References

Available on Request