

Ella Penson

Examining the Relationship Between Birth Order and Personality, and the Subsequent Influence of Complex Family Structure

Behavioral Sciences

Research Plan

Rationale

A debated question in research is that of difference in personality between siblings. As most siblings grow up in similar conditions and with similar resources, it is puzzling why they have such different personalities. This may be explained by the theories of birth order. The first born feels “dethroned” by the birth of the later siblings, which has a lasting effect on them. Further, the middle child and later children often feel ignored and neglected, helping form their psyche. These circumstances play a vital role in the development of the Big Five personality traits in people: openness, conscientiousness, extraversion, agreeableness and neuroticism (Adler, 1928). Studies have shown that first borns tend to score higher on levels of conscientiousness but lower on levels of openness, agreeableness, extraversion and neuroticism. The opposite is evident for later borns.

As time has progressed, complex familial structures have become increasingly normalized. These families include divorced parents, single parents and introduction of step siblings. It has been found that children in these complex families have higher levels of openness and extraversion as well as lower levels of conscientiousness (Zyrianova, Chertkova, & Pankratova, 2013). These trends in complex family subjects are more representative of later borns.

Many researchers look for indicators in early life of poor mental health and dangerous habits. Birth order may be an effective way to do so. Birth order has been correlated with higher neuroticism and reckless behavior in later borns. Studies have also found that later borns feel neglected and often perceive older siblings as harboring the favoritism of their caretakers which leads to increased rebellion (Sulloway, 1996). These theories may allow parents to analyze their children’s behavior and prompt them to monitor later borns with greater care. This may be useful to schools as well. If a counselor or educator at a school witnesses a child exhibiting these behaviors, the theories of birth order may provide more insight into why they are taking such actions.

In an ever-evolving modern America, complex family structures are becoming increasingly prevalent. If there is research on what the psychological effects on children could be, this would allow parents to be more equipped to predict behavior in their children. Theories such as those presented in this paper could allow parents to predict the detrimental effects of a complex family sooner and provide resources to their children. This may include more of their time, increased surveillance over their children to assure their wellbeing or providing someone to talk to such as a therapist or psychologist.

Research Questions and Hypotheses

Questions

1. How does birth order influence personality within first borns and later borns?
2. Does being in a complex family alter the effects of birth order?

Hypotheses

1. First borns will score significantly lower on the subscales of openness, extraversion and agreeableness, and neuroticism on the MBTI than later borns.
2. First borns will score significantly higher on the subscales of conscientiousness than later borns.
3. First borns in complex familial structures will exhibit qualities of later borns rather than of a typical first born.

Procedures

In order to collect data, a two part survey will be administered through both Amazon's Mechanical Turk for \$0.05 compensation and through a shareable link. Participants will be invited to take the survey through Amazon's Mechanical Turk. Reviewal by a board is not necessary for the distribution of this survey as no identifiable information will be taken from participants. Moreover, joining Mechanical Turk requires participants to sign a release that allows their answers to be used in publications and studies. At the beginning of the survey, a brief informed consent paragraph will explain the purpose of the study and its impending submission to a nationwide competition. It will also state that all answers are anonymous. The demographic section of the survey will be utilized to gather information on each participant's family structure. This includes questions regarding gender, birth order position, and age. Only subjects above the age of 18 will be included in the study. Subjects will be asked who their primary guardians were, and if their caretakers separated or divorced while they were growing up. Further, the survey inquires about whether participants grew up in one home, or with step siblings.

The second part of the survey will be the *Myers-Briggs* personality inventory which serves to gather the personality type of each participant. The questionnaire produces results by examining the ways individuals prefer to use their perception and judgment. This, in effect, illustrates the differences in the Big Five personality traits in each person. The measure is composed of 70 items based on a two answer scale. From each prompt, participants will choose one of two answers that best describes themselves. An example of a prompt is, "Would you say you are more..." and examples of responses would be "serious and determined," or "easy-going." Overall, the survey should take at most 20 minutes.

There is minimal to no risk involved with this study.

Data Analysis

This study will analyze whether there is a correlation between birth order and each personality trait. Data will be coded into Microsoft Excel. A multivariate linear regression

analysis will be performed for openness, conscientiousness, extraversion, agreeableness and neuroticism against birth order position

The second set of comparisons will be done solely on participants within complex familial structures. For this group, a One-Sample t-Test will be manipulated to assess the difference in means between complex family traits and the hypothesized trait results.

Bibliography

(n.d.). Retrieved from <https://www.apa.org/topics/divorce/>.

(n.d.). Retrieved from

<https://www.myersbriggs.org/my-mbti-personality-type/mbti-basics/original-research.htm?bhcp=1>.

Aboujaoude, E. (2017). The Internet's effect on personality traits: An important casualty of the "Internet addiction" paradigm. *Journal of Behavioral Addictions*, 6(1), 1–4. doi: 10.1556/2006.6.2017.009

Asendorpf, J. B. (1986). Support by parents, classmates, friends and siblings in preadolescence: Covariation and compensation across relationships. *Journal of Social and Personal Relationships*, 14, 79–93.

Beer, J. M., & Horn, J. M. (2000). The Influence of Rearing Order on Personality Development Within Two Adoption Cohorts. *Journal of Personality*, 68(4), 789–819. doi: 10.1111/1467-6494.00116

Bi, N. N., & Gounder, S. S. (2016). Personality Development: Assessing the Effects of Single Parent. Families on Students Personality. *International Journal of Humanities and Social Science Invention*.

Dunn, J., & Plomin, R. (1991). Why Are Siblings So Different? The Significance of Differences in Sibling Experiences Within the Family. *Family Process*, 30(3), 271–283. doi: 10.1111/j.1545-5300.1991.00271.x

Eisenman, R. (1964). Birth order and artistic creativity. *Journal of Individual Psychology*, 20(2), 183-185.

Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin*, 116(3), 429–456. doi: 10.1037/0033-2909.116.3.429

Fitzgerald, H. E., Mann, T., & Barratt, M. (1999). Fathers and infants. *Infant Mental Health Journal*, 20(3), 213–221. doi: 10.1002/(sici)1097-0355(199923)20:3<213::aid-imhj1>3.0.co;2-g

Healey, M. D., & Ellis, B. J. (2007). Birth order, conscientiousness, and openness to experience. Tests of the family-niche model of personality using a within-family methodology. *Evolution and Human Behavior*, 28(1), 55-59.

<https://doi.org/10.1016/j.evolhumbehav.2006.05.003>

Jang, K. L., Livesley, W. J., & Vernon, P. A. (1996). Heritability of the Big Five Personality

- Dimensions and Their Facets: A Twin Study. *Journal of Personality*, 64(3), 577–592. doi: 10.1111/j.1467-6494.1996.tb00522.x
- Kanazawa, S. (2008). Temperature and evolutionary novelty as forces behind the evolution of general intelligence. *Intelligence*, 36(2), 99–108. doi: 10.1016/j.intell.2007.04.001
- MacDonald, A. P. (1971). Birth order and personality. *Journal of Consulting and Clinical Psychology*, 36(2), 171–176. doi: 10.1037/h0030717.x
- Mccormick, K., & Baer, D. J. (1975). Birth Order, Sex of Subject and Sex of Sibling as Factors in Extraversion and Neuroticism in Two-Child Families. *Psychological Reports*, 37(1), 259–261. doi: 10.2466/pr0.1975.37.1.259
- Michalski, R. L., & Shackelford, T. K. (2002). An Attempted Replication of the Relationships between Birth Order and Personality. *Journal of Research in Personality*, 36(2), 182–188. doi: 10.1006/jrpe.2001.2350
- Mostafa, T., Gambaro, L., & Joshi, H. (2018). The Impact of Complex Family Structure on Child Well-being: Evidence From Siblings. *Journal of Marriage and Family*, 80(4), 902–918. doi: 10.1111/jomf.12456
- Peretti, P. O., & Vitorrio, A. D. (1993). Effect Of Loss Of Father Through Divorce On Personality Of The Preschool Child. *Social Behavior and Personality: an International Journal*, 21(1), 33–38. doi: 10.2224/sbp.1993.21.1.33
- Pollet, T. V., Dijkstra, P., Barelds, D. P., & Buunk, A. P. (2010). Birth order and the dominance aspect of extraversion: Are first borns more extraverted, in the sense of being dominant, than later borns? *Journal of Research in Personality*, 44(6), 742–745. doi: 10.1016/j.jrp.2010.10.002
- Rohrer, J. M., Egloff, B., & Schmukle, S. C. (2015). Examining the Effects of Birth Order on Personality. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2704310
- Stansbury, V. K., & Coll, K. M. (1998). Myers-Briggs Attitude Typology: The Influence of Birth Order with Other Family Variables. *The Family Journal*, 6(2), 116–122. doi: 10.1177/1066480798062006
- Saroglou, V., & Fiasse, L. (2002). Birth order, personality, and religion: a study among young adults from a three-sibling family. *Personality and Individual Differences*, 35(1), 19–29. doi: 10.1016/s0191-8869(02)00137-x
- Sulloway, F. J. (1996). *Born to rebel: birth order, family dynamics, and creative lives*. London: Abacus.
- Wood, E., & Kennison, S. M. (2018). Birth Spacing and Birth Order. *Encyclopedia of Evolutionary Psychological Science*, 1–13. doi: 10.1007/978-3-319-16999-6_835-1
- Zyrianova, N., Chertkova, Y., & Pankratova, A. (2013). The Influence of Birth Order and Family Size on the Relationships between Cognitive Abilities and Personality Traits. *Procedia - Social and Behavioral Sciences*, 86, 262–266. doi: 10.1016/j.sbspro.2013.08.561

