

Birth Order and Intelligence

Authored by
mohammad looti

November 19, 2022

RECOMMENDED CITATION

mohammad looti (2022). *Birth Order and Intelligence*. PSYCHOLOGICAL SCALES.
Retrieved from <https://scales.arabpsychology.com/?p=38516>

Since the 1970s, one of the most influential theories to explain why firstborns frequently score higher on intelligence and achievement tests than other children is the confluence model of Robert Zajonc. This model states that because firstborns mainly have adult influences around them in their early years, they will spend their initial years of life interacting in a highly intellectual family environment. This effect may also be observed in siblings who, although later born, have a sibling at least five years senior with no siblings in between. These children are considered to be "functional firstborns". The theory further suggests that firstborns will be more intelligent than only children, because the latter will not benefit from the "tutor effect" (i.e. teaching younger siblings).

Zajonc's theory has been criticised for confounding birth order with both age and family size, and researchers such as D. F. Polit and T. with one other sibling score higher on tests of verbal ability than laterborns and children with multiple siblings. This observation does support a conclusion, more modest than the confluence model's stronger claims, that smaller families lead to children with higher test scores. However, when the metaanalysis tested more specific claims by comparing firstborns against the members of the other groups also occupying the upper performance tier (i.e., singletons and children with one and only one sibling), it found that firstborns do not enjoy any advantage over the members of the other groups, suggesting that either a) firstborns do not enjoy any advantage not also enjoyed by those other groups' members or at least b) to whatever extent firstborns do enjoy unique advantages, members of the other upper-tier groups enjoy offsetting advantages not shared by firstborns.

While more consistent with resource depletion theory (RDT) than with the confluence model, these findings also cast doubt upon the claim that RDT is the sole cause of any correlation that in fact exists: Were RDT the exclusive explanation, only children would have an advantage over firstborns (given that siblings divert at least some resources from both "true" and "functional" firstborns regardless of age difference). The metaanalysis, however, finds no such effect, leaving open the null hypothesis that other factors, including but not limited to those enumerated in the confluence model, have some offsetting effect. For example, in multiple-child families, academic achievement often serves as one of several arenas in which siblings compete for parental affection and other resources. In well-functioning families, firstborns reap the side effects not only of tutoring younger siblings (see above) but also of competing against those siblings to some degree and strengthening themselves in the process. In families where sibling rivalry reaches a pathological level, and especially when a scarcity of parental resources such as affection exacerbates already-severe rivalry, firstborns may be less willing to give away competitive advantage by sharing knowledge with their siblings, but the firstborns in question will by that same token likely study harder for their own benefit, gaining reinforcement similar to what they would realize from the teaching process. In each case, other factors at least partially offset the obstacles to achievement that resource depletion poses, especially in the context of comparing siblings' achievements to those of singletons who engage in neither tutoring nor inter-sibling competition. Moreover, younger as well as firstborn siblings benefit from the process of competing for parental resources that are

finite even when they are abundant, meaning that resource depletion is not the only factor in play even for children in the "lower tier," that encompassing laterborns and children with multiple siblings, who do not enjoy any advantage not also enjoyed by firstborns.

The basic finding that firstborns have higher IQ scores has itself been disputed. One group of researchers examined data from the National Longitudinal Survey of Youth (NLSY) (USA), which gave them the opportunity to look at a large randomly selected sample of US families. The sample included children whose academic performance had been reviewed multiple times throughout their academic careers. This study found no relationship between birth order and intelligence. Recent studies of eldest children by both the Harvard Medical Journal (Aug. 2009) and a thesis published by Swedish research scientist Lars Orstenberg (see 'Younger Children, Brighter Futures', May 2009, Bazar Förlag Press) suggested that past research focuses too heavily on early life. Both papers point to a distinctly higher rate of success among second borns later in life in the areas of career as well as wealth. Orstenberg theorized that the more rapid aging process seen in first borns often leads to a deteriorated personal appearance in comparison to siblings. Orstenberg: "First borns struggle with this shift of power and often limit their potential by focusing on it."

Sexuality

The fraternal birth order effect is the name given to the observation that the more older brothers a man has, the greater the probability is that he will have a homosexual orientation. The fraternal birth order effect is the strongest known predictor of sexual orientation, with each older brother increasing a man's odds of being gay by approximately 33%. Even so, the fraternal birth order effect only accounts for a maximum of one seventh of the prevalence of homosexuality in men. There seems to be no effect on sexual orientation in women, and no effect of the number of older sisters.

In the book *Homosexuality, Birth Order, and Evolution: Toward an Equilibrium Reproductive Economics of Homosexuality*, Edward M. Miller suggests that the birth order effect on homosexuality may be a by-product of an evolved mechanism that shifts personality away from heterosexuality in laterborn sons. This would have the consequence of reducing the probability of these sons engaging in unproductive competition with each other. Evolution may have favored biological mechanisms prompting human parents to exert affirmative pressure toward heterosexual behavior in earlier-born children: As more children in a family survive infancy and early childhood, the continued existence of the parents' gene line becomes more assured (cf. the pressure on newly-wed European aristocrats, especially young brides, to produce "an heir and a spare"), and the benefits of encouraging heterosexuality weigh less strongly against the risk of psychological damage that a strongly heteronormative environment poses to a child predisposed toward homosexuality.