# Intelligence of a last born child 

## ASSIGN BUSTER

Despite the vast amount of evidence found to support the idea that birth order can affect a child's personality and education, it is still undetermined whether or not Birth Order does, in fact, have an effect on a person's intelligence. There have been positive links between birth order and intelligence found in various studies, along with some negative links as well. This paper will use numerous examples of studies and beliefs concerning birth order to support the idea that birth order does have an effect on a person's IQ level. This paper will display the ideas regarding first born and last born children through comparison and outlying contributors.

Many experts believe that a person is predetermined to have either a higher or lower Intelligence Quotient (IQ) depending on the order in which they were born into a family. Some people contend that a first born child is most likely to have a higher IQ than a last born child, while others believe that the last born child will have the higher IQ. There are other professionals who believe that a person's birth order has little to no affect on their IQ level. Thus, the following research question emerges: how does birth order affect the intelligence of a first born child versus the intelligence of a last born child?

To examine this question, this essay will use both primary and secondary sources to explore the Intelligence Quotient of people who were the first born child in a family and also those who were the last to be born into a family. Although there are multiple opinions regarding whether or not birth order has an effect on intelligence, this essay will attempt to support the opinion that birth order does not have an effect on whether a person will have a higher or lower IQ level.

Born in 1822, Sir Francis Galton became a founder of differential psychology, which concerns itself with psychological differences between people, rather than on common traits.[1]Galton believed that there was a more open relationship between parents and their firstborns, which in turn gave the firstborns more responsibilities than their younger siblings.[2]In various cases, this assumption might be considered true, although there are other cases where something as simple as age difference can affect this. Typically the older sibling is likely to be more responsible because they are likely to mature quicker than their younger siblings. If there is a vast enough age difference between siblings, this openness between parent and child can change. As the older sibling ages and moves away from home, a new relationship is likely to form between the younger sibling and the parents, thus giving them a new sense of responsibility.

The Birth Order Theory originated back in 1874 when Sir Francis Galton wrote the book English Men of Science. He found that when studying men in prominent positions of power that the largest group was that of first born sons. He was convinced that this could not possibly just be due to chance or coincidence. With this, he hypothesized that birth order affects intelligence and success.[3]Would the people that are not aware of the birth order theory conform to the specific criterion of the theory or is it that those who are aware of it are sub consciously adjusting their personalities to fit in with the theory as a way of justifying their place in their family?

Also in 1874, Francis Galton collected birth order data from 99 of his subjects, which revealed that $48 \%$ of them were firstborn sons or only sons. Galton declared that, theoretically, a male subject could be counted as a "
first born" even if he was the 10th child, if his nine older siblings were all female. Same goes for a female born 10th with nine older brothers.

Galton furthermore offered several reasons why birth order might affect IQ. One of the reasons he mentioned were Europe's primogeniture laws that were still prevalent during Galton's lifetime. Primogeniture is the system of inheritance or succession by the firstborn, specifically the eldest son. This has an effect on IQ, because the firstborn sons would be more likely to have the financial resources to further their education. He also stated that firstborn children would get more attention and receive better nourishment in families with limited financial resources.[4]

Born in Woodbine, Kansas, in 1890, Minnie Louise Steckel became an administrator, educator, and school psychologist in North Dakota and Iowa. [5]Steckel determined that younger siblings were actually more intelligent than older siblings. In Steckel's article, " Parental Age and Intelligence of Offspring," she stated that " below the age of twenty-six to twenty-eight for mothers and thirty to thirty-two years for fathers, the younger the parents the less favorable is the prognosis for the intelligence of the offspring."[6]In other words, Steckel believed that woman over 26 and fathers over the age of 30 were more apt to have children with a higher IQ. Based on the information Steckel provides, you can assume that children born to parents in their late teens or early twenties are less likely to have top notch IQ's compared to the children with parents in the prime age range.

Utilizing the records gathered by Dr. Minnie L. Steckel, juvenile researcher Dr. Richard Leos Jenkins of Chicago, Illinois, determined in 1931, after
looking over records of 7, 000 Sioux City, lowa, children that the youngest child in a family is usually the smartest. Jenkins also concluded that the children of elderly parents are usually smarter than other neighborhood counterparts. Henry Havelock Ellis, known as Havelock Ellis, was a British physician and psychologist, writer, and social reformer who studied human sexuality in the 1930s. Ellis thought that late generating parents did their offspring well. Dr. Jenkins, however, reasoned that more money and experience in bringing up children enable these parents.[7]

Steckel also stated that when " the ages of the two parents approach each other the more favorable is the prognosis for the intelligence of their children."[8]In other words, Steckel believed that parents who were close in age to each other were more likely to have children with a higher IQ than those parents who had a large age gap between them.

In 1973, a study was conducted by Lillian M. Belmont and Francis A. Marolla, members of New York City's State Department of Mental Hygiene at Columbia University School of Public Health,[9]to determine the relation of birth order and family size to intellectual performance. Belmont and Marolla conducted their study in the Netherlands where they examined nearly 400, 000 19-year-old Dutch men who were born between 1944 and 1947, utilizing the Raven's Progressive Matrices.[10]Raven's Progressive Matrices (RPM) are the leading global non-verbal measurement of mental ability.[11]This study illustrated a negative association between birth order and intelligence.

According to Belmont and Marolla, in each family size the children born first always achieved more superior IQ scores than the children who were born
later in a family. There was a gradient of declining scores with the rising birth order. The children born first scored better than those born second, who in turn scored better than those who were born third, and so forth. In general, as a family size increased there was a decrease in the RPM performance within each particular birth order position. A child born third from a threechild family would be expected to score higher than a child born third in a four-child family, just as a child born third in a four-child family would be expected to score higher than a child born third from a five-child family.[12]

In 2007, Petter Kristensen, a Professor II in the Department of Community Medicine at the Institute of Health in Oslo, Norway, and Tor Bjerkedal, medical educator and researcher in Oslo mil Akershus, Norway, present the family of hypotheses suggesting that the relation between intelligence and birth order is due to more favorable family interaction and stimulation of low-birth-order children, whereas others claim that the effect is caused by prenatal gestational factors. Kristensen and Bjerkedal surveyed nearly 250, 000 military conscripts which showed that the IQ score levels were dependent on social rank in the family and not on birth order, which provided support for a family interaction explanation.[13]1415

A group led by Tiffany L. Frank, a doctoral candidate at Adelphi University in Long Island, N. Y., found that older siblings tended to be more intelligent, whereas younger siblings got better grades and were more outgoing. Frank and her colleagues tested 90 pairs of high school aged siblings who were asked to report on their grades and then rank themselves against their siblings on intelligence, work ethics, and academic performance.[16]

In a second study, subjects were rated on a series of statements meant to assess personality. The firstborns of the group had higher test scores in Math and verbal ability, while the later-born children had better grade point averages in English and Math. The later-born siblings tended to be more extroverted, sentimental, forgiving, and open to new experiences, which made them more open to new experiences because they " see the obstacles that their older siblings have overcome and therefore feel more secure in challenging themselves."[17]

According to Robert B. Zajonc, a Polish-born American social psychologist and pioneer of social psychology, firstborns are more intelligent that the later-born children in their family. Zajonc determined that firstborn children were more intelligent because they only had adult company during their earliest years and they were not influenced by interaction with younger siblings. Therefore, they were required to interact with a more mature group of people who are on a higher intellectual plane than themselves. These firstborn children later benefited from the " tutor effect." The tutor effect occurs when the older child aides a younger sibling with school work or other activities. Thereby, relearning and refreshing their knowledge.[18]According to a Norwegian intelligence study, when firstborns die, the IQ of second-born children rises by a small amount. This is a sign that they are performing the more difficult mentoring work that goes along with being the oldest.[19]

In 1975, Zajonc and Greg B. Markus, a research professor in the Department of Political Science at the University of Michigan,[20]proposed the Confluence Model, which provided a mathematical model of the birth order and family size on IQ scores. The Confluence Model explained the firstborn IQ
advantage in terms of the intellectual environment within the family. It is used to calculate the relative advantages and disadvantages of some contributing factors. One of the factors of this model is that firstborns do not have to share their parents' attention, so they benefit from their complete absorption. Another factor is that firstborns often have to answer questions and explain things to their younger siblings. These older siblings are therefore cognitively processing this information through tutoring their siblings. The youngest children in families do not get to tutor their brothers and sisters, so they do not have that advantage. This is also the reason why only children tend to have lower IQ levels than firstborns.[21]

In a child and adolescent psychiatry clinic close to Münster, Germany, approximately 2,500 adolescents had their intelligence assessed. Each child's family size was significantly correlated with the IQ level score categories. This assessment exhibited that firstborn children and only children displayed higher IQs than their later born siblings, which is supportive of the Confluence Theory by Robert Zajonc. However, this correlation was found only for those children who were 11 years old or older not those children that were younger than 11 years old. This relationship between birth order and intelligence was also found to be moderated by gender.[22]

In 1981, Judith Blake, professor emeritus of the University of California's School of Public Health,[23]proposed the Resource Dilution Model, which was then elaborated by Douglas B. Downey in 2001. Downey, a sociology professor at Ohio State University,[24]determined that the Resource Dilution Model (RDM) offered an explanation for both the higher IQ scores of firstborn
children and the over-representation of firstborns among college students. The RDM is based on three assumptions. The first assumption; " Parental resources are finite." These resources include money, personal attention, and books. The second assumption; " Additional siblings reduce the share of parental resources received by any one child." Parents that have more than one child have to divide their resources between each child. The third assumption; " Parental resources have an important effect on children's educational success." The opportunity for higher education is a factor in the achievement of eminence.[25]

In Blake's 1989 book, " Family Size and Achievement" from University of California Press, she concluded that single children and those from two-child families were better educated and more successful than those from larger homes. The parents of larger families had less time and money to invest in each child individually. As the mother of an only child, a daughter,[26]Blake contended that an only child did better socially because he or she is motivated to seek outside acquaintances.

Internationally known Christian psychologist and speaker Dr. Kevin Leman recommended that parents follow a simple guide on parenting their children based on birth order.[27]He suggested that a parent should not be an " improver." If a parent asks their firstborn child to make their bed, naturally the child will, because they want to seek their parents' approval and show them that they are capable of finishing their tasks. He also mentioned that if a parent tells their child they did a good job they should leave it at that. If they attempt to improve upon the child's efforts by fluffing the pillow or
straighten the sheets they are sending the message to their child that they did not in fact completely approve of their work.[28]

Dr. Leman goes on to discuss the issue of responsibilities for firstborns. A last-born child is always considered to be babied and given the simple way out, because they are the baby in the family, so everyone lets them go easy. If a parent shares the duties and errands with all their children equally, then the last-born child is less likely to be " babied." It makes each child feel like an equal and not as if one has more or less responsibilities.

When parenting the last-born child, it has been proven that they are least likely to be disciplined, because the parents do not want to feel like they are pressuring their child or giving them too much discipline. Leman recommends that parents refrain from letting their last-born get out of doing work or helping around the house, because you do not want to raise a helpless child. He suggests you raise a self-reliant and confident child.[29]

According to an article from the website CBSNews, children born first are more likely to become Newscasters or TV talk-show hosts. For example, Oprah Winfrey and Rush Limbaugh were both firstborn children. These are both very prominent people in society that are well respected and have come a long way to be where they are today. Also, over half of the U. S presidents were firstborn children. This proves that firstborns are more apt to being a natural leader. Although they are all different, firstborns tend to be very reliable amongst a group of people. Firstborn children set a good example of a strong willed and model person for all people, whether firstborn or lastborn[30]

Typically, last-born children are very social and outgoing. They tend to be financially irresponsible considering the fact that they have been " spoiled" most of their lives and did not have to work hard to get what they wanted. Some well known last-born stars were Billy Crystal, Goldie Hawn, and Jim Carey. Each of these stars is an extrovert and a social butterfly. Although last-borns can be charming individuals, they can also be manipulative to their family and others. They become so spoiled that they are helpless on their own. According to Dr. Leman, " the last born is the one who will probably still have a pet name, although he is 29 and has a master's degree."[31]

Leman states, " Some variables can affect the above descriptions. For instance, if there are several years between the first and second child, the second child will have some characteristics of a firstborn. Or, if the firstborn is a girl and the second a boy, the son will have some first-born characteristics because he is the family's first male offspring."[32]Sibling deaths, adoptions, and blended families will also upset the traditional birth order. Children are all different and their parenting must be handled in different ways.[33]

Based on the information displayed throughout this paper, one can conclude that birth order is a prominent factor on the intelligence of a person. Although there are some instances where a study has shown there to be a negative association between birth order and intelligence, it is wholly overruled by the amount of positive associations found throughout multiple studies.

