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## Birth Order Impacts: Real or Imagined? A Review of Literature Past and Present

It would seem likely that children reared in different families would develop differently, not only based on genetics but also family conditions. The concept brings to light the nature versus nurture debate that has for so long been a major topic in the field of psychology. The effects of birth order are really an extension of this nature versus nurture debate. Is it possible that the order in which children are born, based in nature and genes, can play such a role that it changes development for each child within the same family system, or source of nurture? Not only psychologists, but biologists also have looked at how valid it is to assume that birth order is responsible for the course of development of a child's personality or intelligence. Even Charles Darwin, the revolutionary biologist who proposed the theory of evolution based in natural selection, took a stance that birth order must impact how an organism travels through life. He felt that "Children do not inherit special genes for being firstborn or laterborns, only genes for engaging successfully in competition for parental investment", and this is what leads to differing traits amongst siblings who have very similar genes. All because methods that work for the firstborn will eventually spawn counterstrategies in the laterborns to promote their own success (Sulloway, p. xv). The strong survive to pass of their genes and the weak do not; Darwin's concept of natural selection at it's simplest, and in layman's terms this is the root of sibling rivalry. This idea may seem more applicable to giant tortoises than humans, but the notion has been seen as compelling enough to spark mountains of research into the effects of birth order on development. Psychologists took this idea a step further, not only studying development in the physical sense in order to be able to produce off-spring, but development of personal characteristics like personality, behaviors, and educational success. Results have

been mixed as to whether or not birth order is crucial to explaining certain growth phenomenon, but on the whole the correlations seem too great to be completely dismissed.

#### **Personality Development**

Take for example personality development, which over time has had many origins proposed. Starting as early as infant temperament, researchers have posed that a child's later personality can be determined. Where birth order is concerned, it can have an impact on personality, as it has an impact on the position or role that the child takes within the family constellation. Without recognition, people will take these same sort of roles like authoritative, submissive, mediator, or whatever it may be in their lives outside their families, pointing to a more personal characteristic factor than family dependence (Toman, p.141). Another key to this may be the gender of the child and the gender of the siblings that he or she has. The oldest brother of all brothers may love to lead and assume responsibility for those younger than he being a more traditional "man's man", while the oldest brother of sisters may be more likely to appreciate women more and while he strives for authority may be less interested in preserving his own higher standing especially where women are involved. In contrast, the youngest brother of all sisters may lack this drive for superiority all together, and is unconcerned with power or wealth. He is content to be cared for, and perhaps unconsciously allows this to happen through out his life moving from sisterly care to a wife's care as he too will be more of a "ladies man" (Toman, p.161).

Though some of these characteristics can seem very Freudian in nature, observation and research using self-reporting scales have confirmed these similarities across the groupings. Alfred Adler was one of the first psychologists to propose that birth order played a role in the development of personality, as he viewed first born children as more neurotic and needy based in their "dethronement" upon the birth of proximal children. The oldest then strives through out life to regain the central role,

making them driven and higher achieving than their younger siblings. He also hypothesized that the second born gets to enjoy the hard work of the oldest without having any of the pressure for success, making them more likely to lack initiative and drive later in life when out on their own (Marini and Kurtz, 2011). Research into Adler's claims have long struggled with confounding factors, such as sibship size (the number of siblings in a family) or parenting style, making their results subject to questions of validity to the effects of birth order. New research however has found ways to randomize against these elements and gain truer insight. Sulloway, in 1996, proposed a five-factor model for personality development that is influenced by the position a child take in the family. Every child has varying levels of extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience, and the scores for each of these are dependent upon the birth order. So per the model a firstborn rates higher is conscientiousness and neuroticism yet lower in extraversion and openness to experience than a laterborn. Analysis of the fivefactor model that controlled for issues like family size and other demographics found no differences between firstborns and laterborns when using self-report scales. Yet studies that used parental rating scales or other informants, like spouses or peers, did see statistical differences (Marini and Kurtz 2011). With such mixed results, it seems that more research must be done on the topic of birth order influence into personality development, as this can have such a profound effect on so many other aspects of a persons whole life, not just his or her childhood.

#### **Behavioral Development**

Often thought to be founded in infancy, behavior development like personality development has been hypothesized as subject to birth order dependency. In this discussion, family size tends to play a significant role in relation to the birth order. Children of a higher birth order, or laterborns, statistically come from higher sibships than do firstborns. Also, in this same vein, laterborns tend to be born to older mothers than do firstborns. These facts are not hard to prove statistically, but

how this plays into the effects of birth order becomes more interesting. Because laterborns are born to older mothers, they tend to see a higher rate of birth defects than do firstborns, but firstborns tend to also see better parental care in infancy (Sillies, 2010). It is undeterminable whether this discrepancy in care is due to first children being born to younger mothers who may be more modern in their knowledge than that same mother when she has later children and has less time to stay up to date, or another explanation. Regardless, this alteration in care and time spent has many adverse affects for higher birth order children in terms of behavior.

An English study written by Mary Sillies in 2010, showed that first and lastborn children showed lower rates of acting out in school, while middle born children showed higher rates. Potentially, this is explained by parents focusing on the higher achieving older children along with the more needy youngest children, leaving the middle children with the smallest share of parental time. The same study found that on behavioral scales given to children at ages seven, eleven, and sixteen, sibship size was negatively correlated with high scores. Meaning that the higher number of siblings a child has the lower he or she scores on a given test, but within any family size the firstborns scored higher than the middle or last born children. This is a very real impact for life long problems, as it is well documented that children who act out in school show lower achievement academically. So if behaviorally speaking, laterborn children are at a disadvantage in many ways, it begs the question of how much of this can placed on an unequal distribution of parental attention. Laterborns have also been shown to be more likely to partake in risk taking behaviors than are firstborns, while oldest children are likely to be more actively cautious than are younger children in a family (Ernst and Angst, p.102). This information translates into the finding of a 1976 study by Yannakis that found an overrepresentation of laterborn males in university level sports considered dangerous, like football and rugby (Ernst and Angst, p.105).

Yet another study examined sibling relationship quality based in how siblings act towards each other, finding that middle children reported worse family situations

than did first and lastborns (Pollet and Nettles, 2009). Calling this the "negated middleborn effect", the researcher proposed that middleborns isolate themselves based in a perception that they are at less of an advantage than their older and younger siblings. This behavior changes family dynamics and translates into other relationships later in life. The same study by Pollet and Nettles also reported findings that firstborns were more likely to seek face-to-face sibling contact, a behavior that could strengthen family constellations. Again, the data presents a strong correlation between birth order and certain behavioral characteristics. Though dismissed by some, birth order is certainly a hard factor to ignore in the behavioral development of children as well as other characteristics.

#### **Educational Attainment**

As mentioned previously, negative behavior in school can have an adverse effect on the academic achievement potential of a child. In turn, this can alter all of the paths that a person will have presented to them through out life, like quality of secondary education and job earning potential. In regards to this area of educational efficacy, again studies show that higher sibship is negatively correlated with higher levels of success, and also firstborns consistently perform better than do laterborns in terms of academic adherence (Sullies, 2010). In recent years, this topic of educational accomplishment in relation to the role birth order might play has been a popular topic of research. Almost any angle possible has been taken to explain the consistent phenomenon seen, one example being that first borns are more academically gifted than laterborns. Many of the studies have struggled with confounding factors that again can explain away significant results. An example of this being that families of lower socioeconomic status tend to have more children making them biased to laterborns. With each subsequent birth the parents child care time goes up, in turn making their time used to earn money for the family at a job go down; adding to the economic stain (Gugl and Welling, 2010). Where it would seem

that these laterborns are not as educationally astute as firstborns, the results may be better explained by a lack of access to resources like better schools or materials based in a lack of economic ability and not the child's potential. This said, studies that can manage to control for these such issues still find that oldest children are more likely to be higher achieving than younger siblings in families. These finding are not unique to studies done in the United States either, but similar results have been seen in Great Britain and Korea (Cho, 2011). All this data seems to point to an unequal distribution of the family's resources and parental time, much like with behavior development.

Both of these examples actually illustrate Charles Darwin's principle of divergence, where in siblings will diversify themselves from the others in order to stand out and get a better share of the family's supplies (Sulloway, p.85). Younger siblings may choose to focus on other skills outside of academics as a means to gain parental attention and approval, leaving schooling as a shining point for the older sibling. Another explanation for the findings of the research is that as the oldest, firstborns are simply the first to need such articles as money for college, leaving less and less for the proximal siblings. Researchers do place a great deal of emphasis on the lack of achievement for laterborns as a result of less parental involvement and not something about the children's genuine academic ability or disability. The research is not concerned with determining how birth order affects the prevalence of learning disabilities, but rather looking at achievement within children of appropriate cognitive levels at their ages. Again, laterborns are biased to be part of larger families, making it harder to ensure that each child is receiving equal parental attention as it is split amongst more children and outside factors like jobs and spouses. The success of older children also gives parents a sense that they are doing a good, or at least sufficient, job at helping their children subsequently leading to a decline in the effort paid to the younger children who will be in more need of help. In reality, that firstborn may be higher academically achieving because he or she has a more driven personality and is less likely to act out in school so attendance to

classes is better, making the parental investment a small or not influential piece at all. With so many possibilities as to how to explain the impact birth order can have on educational adherence, more research must be done and is being done on the topic. Nevertheless, birth order most certainly appears to have a very real impact on the opportunities a child has to be academically successful, just as does on other areas of development.

#### Conclusion

Through out history, the effects of birth order on development have gone from favor to out of favor based upon the most recent findings. Some psychologists will argue that personality being truly influenced by birth order is pure Freudian fantasy, yet countless studies ascertain that traits are linked to first, middle, or youngest children with striking levels of confirmation from reporting scales and inventories. And personality is not the only proposed developmental feature apparently influenced by birth order, as everything from gene expression, visual experience at birth, behavior, and educational attainment have been the subjects of research related to birth order (Dobkins et al, 2009). Without question, the results of all birth order research have been mixed, with some seemingly proving the concept valid and then still other finding no correlations at all. It would seem that future research must do the best job possible to eliminate all confounding factors in order to truly be able to treat birth order as the independent variable in an experimental design. In the event that this can be done more effectively than in the past, the true effects of birth order on developmental factors could be very telling for the field of psychology and counseling. If for instance a child who is first born really is more prone to a driven and rigid personality he or she could be at a higher risk for certain mental disorders like obsessive compulsive disorder or anorexia. Conversely, a laterborn child may be inaccurately diagnosed with a learning disability because he or she falls behind in school when really there is a lack of parental effort at home to help the child achieve at school. If the field can narrow the number of factors

researched and find correlations like these proposed, then perhaps preventative measures can be taken and parents better informed about how the order of their children will affect the child for life. As Darwin stated, a child does not have a gene that makes he or she the first or last born in a family, but it does seem that this factor has as great an influence on the development as any gene would. Birth order and the effects that it has seem to be part nature, part nurture, and altogether an excellent topic for psychological debate and research.

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