

The debate on nature versus nurture



The debate between nature and nurture has been one of the most heavily researched topics over the last few centuries. The term “nurture” refers to those scientists and psychologists who believe that our personality and behaviors come from environmental factors around us. This view is also known as the environmentalist theory. The environmentalist theory stresses that our behavioral characteristics come from environmental factors such as where we live, how we live, and what we participated in while we were growing up. On the other side of the argument, the term “nature” refers to those scientists and psychologists who believe that our behavioral aspects are in accordance with the naturalist theory. The naturalist theory stresses that the sole determining factor of our behavioral characteristics is the hereditary or genetic framework that we inherited from our parents. These two opposing viewpoints have battled throughout history, and have helped psychologists and scientists theorize about the world around us.

One of the most influential people in American behaviorism was John Broadus Watson. Considered the “father of American behaviorism”, Watson revolutionized the world of science with his new beliefs and ideals on nurture. One of his most famous studies on nurture and classical conditioning was his “Little Albert” study. In this study, Watson and his partners experimented on an 11 month-year-old boy named Albert. During the experiment, Albert would play with a white lab rat while Watson and his partners would make loud noises in the background (Rathus, 2007). These loud noises would scare Albert and eventually, condition him to fear the rat. By the end of the research, Watson concluded that everything is “built into” a child through interactions with the environments (Rathus, 2007). “Little

Albert” did not fear the rat until Watson and his co-researchers conditioned him to do so. Therefore, Watson theorized that nothing is instinctual, and that parents have a profound effect on a child’s behavior through the environment in which they choose to raise their child. Through Watson’s research on learned and adaptive behavior patterns, psychologists have come to accept the theory of nurture.

Arnold Gesell, an American psychologist, began working on his own ideas and theories around the same time as Watson. Gesell disagreed with Watson’s views because he believed that behaviors were not influenced by our surroundings, but in fact influenced by another factor. This “ other” factor was greatly researched by Gesell and his co-researchers throughout the twentieth century. Gesell’s studies involved observational techniques, such as film, that would help them follow a child’s journey from infancy to adolescence. Through his extensive research, Gesell and his partners found that children behave and develop in similar ways, even though their environments and surroundings are different. Gesell stated that “ the child of five to ten still grows in the same way and acts in relatively the same way as he did thirty years ago, and for many years before that” (Gesell, 1977). Through Gesell’s research and studies, the “ other” factor has found to be the genetic factor, which has been the cornerstone of the naturalistic theory.

Over the past few centuries, these two men’s findings have been the building blocks for recent research on nature and nurture. Today, psychologists and scientists have come to believe that our behavioral characteristics originate from both our biological background, as well as the

environment in which we were raised. Recently, a new and more united branch of psychology acknowledges both of these theories equally.

In recent years, there have been many experiments and studies that have focused on this combined form of psychology. Some of this research and experimentation has focused on the situational differences of children in different households. During development, it has been found that proper nurturing of children is very reliant on these different living situations (Turecki, 1995). Studies on the early developing years in children have concluded that the effects of these various environmental situations can cause different behaviors, personalities, attitudes, ideals, sexual preferences, and other behavioral patterns in children (Turecki, 1995).

One of these studies focused on different households, and the effects these households have on different children. In this study, children who were raised by a single parent were compared to children raised by two parents. Through this study, it was found that with a change of parents in any stage of life, attitudes and reactions can be altered with a new lifestyle (Turecki, 2000). Other studies have focused on step parenting and foster parenting. However, in these studies, there were additional factors that the researchers needed to take account for. Some of these factors included additional siblings, additional families, and even additional pets. All of these additional factors were found to alter the surrounding environments of these children which, in turn, changed their behaviors and attitudes. Although differences in households and surroundings can be traumatic in a child's life, psychologists have found that environmental factors are still just as important as biological factors (Rathus, 2007).

Some of the biggest studies on biological factors have dealt with the sexual orientation of children. In the past couple decades, a major concern has been the effects gay and lesbian parents have on their children. Some people feel that the effects of having a gay or lesbian parent will change a child's sexual orientation, while others believe that a child's sexual orientation is purely genetic. This major debate is not only present in politics and religion, but also apparent in psychology. Some psychologists theorize that environmental factors, such as homosexual parents, can affect a child's sexual orientation. They believe that this different living environment could result in a "war" within the child over their biological instincts and environmental behavior (Rathus, 2007). However, there has been no scientific evidence that abnormal parenting, difficult life events, or other childhood experiences influence sexual orientation.

While some say that the environment could have a hand in deciding a child's sexual preference, others believe that sexual orientation is merely genetic. Some scientists believe that there is a certain gene that determines homosexuality, while others have viewed it as a genetic disease. However, recent research on genetic, hormonal, and developmental influences on sexual orientation has shown no evidence that allows scientists to conclude that sexual orientation is caused by a specific biological factor. Recently, psychologist John Money concluded that "sexual orientation is not under the direct governance of chromosomes and genes" (Rathus, 2007). In general, it has been found inconclusive whether or not genetic factors or environmental surroundings result in children expressing homosexual tendencies.

Even children who live in normal living environments seem to develop certain problems. These problems have led psychologists to study the quality of the relationship between parents and children, as well as their raising and discipline methods. Different parents have different methods for raising their children, and each method can lead to different theories about the child's behavior. A disobedient, agitated young boy who is raising hell and throwing tantrums out in public would be a good example of this relationship between parent and child. When we witness one of these children in the streets, we often automatically think, " Why doesn't his mother do something?" We assume that the cause of his behavior problems can be found in failed parenting or other environmental factors. However, psychologists have found the truth behind this misbehavior. Recently, researchers have proven that children can be born with a variety of problematic personality characteristics that are not a result of inadequate parenting (Turecki, 2000).

David Rowe, a psychologist and twin researcher, stated that " parents should be blamed less for kids who have problems and take less credit for kids who turn out well" (Turecki, 2000). When dealing with misbehaved children, psychologists often study both environmental and genetic factors. One of the biggest questions they ask is: are mischievous children born that way, or raised that way? The answer may be both. Stella Chess, M. D., and Alexander Thomas, M. D. have done studies on volatile children and have concluded that children who were born with specific qualities kept these qualities throughout their lives because of the surrounding environments they grew up with. In the late 1950's, Chess and Thomas administered their " Difficult Child" study. Through this study, they concluded that ten percent of normal

children were difficult children from birth (Turecki, 2000). Expanding on this research, Stanley Turecki, M. D., has recently performed his own studies. His newly acquired research has found that, in fact, twenty percent of normal children were temperamentally difficult from the time of birth. Turecki recommended that “ parents of difficult children make an important distinction between willful misbehavior which is under the control of the child, and expressions of innate temperament, which are really beyond a child’s control” (Turecki, 1995). Therefore, in order to provide effective discipline, it is very important for parents to understand the difference between behaviors that are related to genes, and those that are related to the environment.

Although Alexander, Chess, and Turecki have all cemented their own names in nature and nurture history, it was Thomas J. Bouchard’s work that was the most valuable. At the University of Minnesota, Bouchard produced multiple studies on the similarities and differences of twins (“ Thomas John Bouchard”). One of his most famous works was the Minnesota Study of Twins Reared Apart (MISTRA), also known as the Minnesota Twins Project. In this study, Bouchard and his co-researchers examined twins who were separated at birth, and raised in different families. The research showed that there were a number of similarities between these identical twins including shyness, activity levels, risk aversion, achievement, optimism, irritability, sociability, cognitive development, and physical gestures, patterns of speech, and even similar hair-styles and brands of toothpaste (Rathus, 2007). Throughout the study, Bouchard found that twins who were raised apart had as equal of a chance of being similar to one another as twins who

were raised together. The study found that since the differences in the behaviors of twins raised apart were due to environmental factors, the similarities between their behaviors must be due to genetics (Rathus, 2007). Bouchard's research concluded that both nurture and nature have an effect on the behavior of twins. By exploring the importance of heredity and surrounding environments, this unique experiment has changed the way in which scientists study the genetic similarities and environmental differences of twins (Turecki, 2000).

Through all of Bouchard's research and studies on the behavior of twins, it would seem as though genetics, biology, and other "nurturing" factors have a head over the "natural" factors. Following his extensive research on twins, Thomas Bouchard concluded that "Genetic factors exert a pronounced and pervasive influence on behavioral variability, and the effect of being reared in the same home is negligible for many psychological traits" (Turecki, 2000). After looking over the majority of Bouchard's research, it would be safe to say that Bouchard heavily supported the argument of nature rather than nurture.

These studies on twins have also provided extensive evidence on whether genetics or the environment has a bigger role in intelligence. Bouchard and other researcher's studies on twins have theorized that genetic factors contribute to differences in intelligence. They have found that identical twins are much more similar in IQ than fraternal twins or other siblings are, even if they were raised in separate households. The link between similar genetic qualities and similar IQs of identical twins proves that genetics have a profound effect on intelligence. In his research, Bouchard has shown this

preference in genes and biological factors, stating that seventy percent of the differences in human intelligence are linked to heredity (Turecki, 1995). However, in his studies, Bouchard failed to mention the effects that the environment has on intelligence. This missing information has been thoroughly researched by Skodak, Scarr, Skeels, and others throughout the years (DeHart et al., 2004).

Adding to Bouchard's original speculation, Skodak, Scarr, Skeels, and other new experts have examined the importance that the environment has on intelligence. Their studies on twins have shown that closely related family members do share more similar IQs than non-related or remote families do. They have also found that twins, siblings, and other relatives that are raised in different living environments from one another; do not show similar IQs (Rathus, 2007). This means that twins who are raised separately tend to show greater differences in IQs than those who were raised together. Since identical twins have identical genes and not identical IQs, certain researchers have come to believe that the environment has a profound effect on intelligence.

At the University of Illinois, neuroscientist Dr. William Greenough has performed experiments on environmental differences and their effects on intelligence. Greenough experimented on lab rodents by placing them in several types of laboratory environments. Some rodents were placed in ordinary mesh cages, while other rodents were placed in intricate, mind-provoking surroundings. The results showed that rodents placed in the intricate, mind-provoking surroundings appeared to be smarter than the lab rats placed in the normal surroundings. Greenough based his results on the <https://assignbuster.com/the-debate-on-nature-versus-nurture/>

fact that the smarter rats showed to have more connections per nerve cell in different brain regions (Adams, 2009). Psychologist Craig Ramey created an experiment that was very similar to William Greenough's. Ramsey experimented on children by placing disadvantaged children in enriched environments. With this early intervention in a child's life, Ramey's idea was to "cultivate their soil, so that an enriched environment would act like a fertilizer to the developing brains of these children" (Adams, 2009). Similar to William Greenough's laboratory rodents, Ramey also found that situational factors such as household income, sociological status, education, and mental stimulus, can have a major effect on the outcome of a child's intellectual ability.

Although there are differences in opinions, it would appear as though "a complex interplay of genes and environment creates IQ differences" (DeHart et al., 2004). All of these studies have shown that environmental factors contribute to IQ scores just as much as genetics do. Bouchard and others have proven that intelligence is not determined by a single gene, or small set of genes, but in fact determined by multiple genes (DeHart et al., 2004). While other studies have proven that environmental factors that influence intelligence include nutrition, social interactions, stimulating environments, caregiver expectations, and even drug and alcohol use. With all of this research, it has been found that a mix between genetics and surroundings influence a child's intelligence.

All of this research on intelligence, genetics, parental discipline, and situational differences, prove that nature and nurture both have an equal impact in forming behaviors. However, as shown by the excessive amount of <https://assignbuster.com/the-debate-on-nature-versus-nurture/>

research and studies conducted by various scientists and psychologists, there is still a disagreement on which is more important. Thomas Bouchard truly believed that genetics and other “ natural” factors affect behavior, whereas Craig Ramey and Dr. William Greenough believed that environmental and other “ nurturing” factors are more important. Other theories by Stella Chess, Alexander Thomas, and Stanley Turecki have provided supporting evidence that children who are born with certain personalities and attitudes can be changed with appropriate parenting. But with all of this disagreement, it has been proven that both Thomas Bouchard’s research on the importance of genetics, as well as the various studies on environmental importance, can contribute to an individual’s behavior. Through all of this research and experimentation, it is important to remember that “ our own view of heredity and environment is that it is not fruitful to try to determine which is more important. Each is essential” (DeHart et al., 2004).