

# Analyze the nature vs. nurture essay

[Psychology](#), [Behaviorism](#)



One of the most enduring debates in the field of psychology is the controversial idea of nature vs. nurture. Throughout the endless history of the debate, no clear conclusion has been met, only hypotheses have been formed. At the center of the debate, human behaviors, ideas, and feelings are being determined, whether they are learned or inherited. Determining physical traits, such as eye color or hair color, are simple because they are hereditary traits. The idea of having a certain personality, intelligence, or ability is under discussion because scientists cannot determine if these traits are learned, or predetermined by genes.

The nature side of the debate argues that human behaviors are formed based on genetics. This means an individual's environment plays no role in determining physiological and intellectual ability. Conversely, the nurture side of the debate argues that a person's environment plays a large role in determining physiological and intellectual ability. Considering the large effect an individual's surroundings and environment has on that individual's life, this side of the debate should be taken seriously.

Both sides of the controversy have been explored thoroughly among scientists, and overwhelming evidence has been found in favor of both hypotheses. In this notorious disagreement, the most compelling argument suggests that an individual develops his or her behaviors, values, intelligence, and personality based on the environment and surroundings he or she lives and grows up in. This paper will summarize the ideas of behaviorism, identical twin studies, homosexuality, and the development of disease as explored. John B. Watson, a psychologist and strong proponent of environmental learning, once said, " Give me a dozen healthy infants and my

own specific world to bring them up in, and I'll guarantee to take any one at random and train him to become any type of specialist I might select -doctor, lawyer, artist, merchant, chef and yes, even beggar and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors" (Powell, "Nature vs. Nurture). This famous quotation is often referred to when considering behaviorism.

Although no psychologist would accept this position today due to the advances in our education and technology, this view would be regarded as an environmental "nurture" view. Children used to be considered "blank slates," onto which anything could be sculpted through environmental experience. Although genetics do play a role in creating traits for an individual, I believe this quote is well said and a great example of the nurture side of the debate. Another "nurture" advocate, Carolyn Csongradi, says: "I believe that without any experience, the human mind is a 'white paper,' invalid of all characteristics and ideas (Csongradi).

Each aspect of behavior is acquired from the environment, she says. These environmental factors determine who we become, the nurture side argues. Experiments and studies have been created and completed in hope to determine whether or not this debate is truly based on nature characteristics or nurture characteristics. I will explore such experiments that involve identical twins, homosexuals, and disorders. A key part of this debate is the studies of identical twins. In a review of two books on the subject by Howard Gruber, he explains the importance of twins: "Identical twins have the exact same heredity.

If they are reared together, their similarities may be due to their identical heredity or to their identical environment. If they are reared apart, any differences between them must be connected to differences in their environment, while similarities are mainly due to their identical genetics. This argument sums up the logic behind Niels Juel-Nielsen's study of Danish identical twins reared apart" (Gruber, Nature vs. Nurture: A Natural Experiment). To go more into depth on the twins reared apart, Susan Farber, cited by Howard Gruber, establishes the perspective of human development.

If identical twins were truly identical, then their development in two different environments would not affect their behavioral differences. Identical twins that are not separated may still differ from each other. Dr. Farber conducted a study that measured the degree of being separated and I. Q. test scores. On average, Dr. Farber discovered that the more separated the twins were, the greater the difference between their I. Q. scores. If intelligence had been hereditary, then these identical twins that were reared apart and separated would still have the same amount of intelligence; yet, they do not (Gruber).

When determining whether homosexuality is caused by an individual's environment and surroundings or by genetics, the answer is unknown. To this day, researchers are still pondering whether or not this " gay gene" exists. Most gays and lesbians believe their sexual orientation is an inborn trait or developed in earlier years of life. However, opponents of gay rights believe homosexuality is a behavior that is created through the conscience thought, and this behavior can be changed or developed at will.

In 1993, a study was done by Dean Hamer, a scientist from the National Cancer Institute. He reported that he had linked male homosexuality to a small region, specifically the end, of one human chromosome: the x-shaped chromosome. Thirty-three of forty pairs of gay brothers were found to have this identical piece of DNA. This brought about more stress to the nation, as several states were considering excluding laws that protect gays and lesbians from discrimination. But if homosexuality could be inborn, as Hamer hypothesized, then these laws would be invalidated by courts.

As years went by, Hamer never finished the work he started. He was accused by colleagues of changing and almost “forcing” the end results in his favor. As a gay gene is not yet found, homosexuality cannot be in favor of the nature point of view. Sexual orientation cannot be genetically determined without this gay gene; therefore, an individual’s sexual orientation is created based upon the surroundings and environment he or she grows into (Chakravarti & Little). Another discussion that is brought about when on the topic of nature vs. nurture is the idea of developing diseases. The role the environment plays on DNA might actually be quite surprising: “The inability of geneticists to easily identify common disease genes has been seen as a vindication of the importance of nurture” (Chakravarti and Peter, 2). The nurture side of the debate is critical in affecting DNA and its products; mutations are not the only way for changing gene function. For example, cancer research reveals that a specific tumor develops only from changing the activity of the genes.

Mutations and a variety of different exposures interrupt the cell metabolism. This is another example of how external environmental prompts influence how the DNA functions. Therefore, DNA interacts with the environment, directly and indirectly, to predispose or protect us from disease. Genes play a huge role in all diseases and traits, with collective action from genes and the nurture point of view that decide the ultimate disease outcome.

(Chakravarti and Peter, 2) Although we cannot decipher the entire code for human life, an understanding can be somewhat met when discussing the functions of genes. According to Emma Young, “ Scientists look at the role the environment plays in explaining the health and behaviors of individuals. If the revelation of the role of genes is discovered, then the influence of environmental factors could easily be pointed out” (Young). Genetic research shows that genes play an important role for almost all complex traits. Genetic research also shows that individual differences in these complex traits are evenly due to environmental and genetic influences.

Simply, the genetic component of the cause of diseases is roughly 50% percent, while the other 50% is due to the interaction we have with our environments. (Young, Nature versus Nurture). This proves that environmental influences are just as important as genetic factors in determining intelligence and other aspects of personality. Researchers have turned to these twin studies of identical twins reared apart on numerous occasions. Because identical twins come from the same egg and have identical genes, their biological traits should be more similar than fraternal twins, which come from separate eggs.

But when it comes to fraternal twins, I believe the nurture debate is more acceptable. Fraternal twins raised in the same environment can sometimes show weird similarities, a convincing argument that genes aren't all that determine how these individuals develop behaviors. This debate will always be a hard one to go on and talk about. This debate will not be resolved anytime soon. Each side offers legitimate and persuasive questions and answers to this debate of "Nature vs. Nurture", and what each of us can perceive to be the problem can not necessarily be a problem to the next person.

Have the scientist and psychologist offer the people legitimate cases on whether we behave the way we have been influenced from the media or our surroundings or is the way we behave because of the genes we take after from our parents? The nature vs. nurture controversy has been and is still significant in the field of psychology today. For many years, scientists have been developing new methods that hope to bring them closer to a solution for this debate. Although this process may be costly, the benefits produced will hopefully bring us closer to defining how an individual ultimately retrieves his or her characteristics and behaviors.

These benefits can greatly impact lives that suffer problems dealing with gene composition. Developing an understanding for how twins, identical and fraternal, differ or relate because of behaviors, personalities, and intelligences can be discovered. Determining whether or not sexual orientation is inherited and by which gene it is formed can be discovered. The ways in which diseases form and live can be discovered. Many

unanswered questions can finally be answered through the development and solution of this nature vs. nurture debate. I believe with the development of better and more complete studies, scientists will come to appreciate that our environment affects how certain genes express themselves.

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