

# [What determines human intelligence psychology essay](https://assignbuster.com/what-determines-human-intelligence-psychology-essay/)

Has one ever wondered what determines human intelligence, one’s intelligence or the intelligence of others? Why are there geniuses like Albert Einstein, Isaac Newton, and Wolfgang Amadeus Mozart? As a child, my parents always pointed out child geniuses on television and in the news, and over the years I have developed an interest in the human brain and our intelligence. In school, I have learned about the impact that intelligent minds such as Einstein and Newton have made. During piano lessons, I have practiced and played numerous pieces by Mozart. These instances have perked my curiosity about human intellect. The human species is the most intelligent of all animals, with complex brains, hearing, movement, and eyesight. What actually determines human intelligence? In my paper, I will share my answer that I have found while researching this topic.

Before I began my research, I knew some information about human intelligence, but I soon discovered that I was not completely correct in my ideas. I believed that intelligence was mostly determined by genetics, because genetics almost always plays a role in every aspect of human lives. It determines looks, body size, height, hair color, eye color, face structure, etc. I am not sure how genetics contributes to intelligence but maybe it boosts intelligence by a small percentage. I do not understand how average parents can have a child genius. Perhaps there are “ smart genes” floating around in everybody and a very small percentage of sperm and egg contain “ smart genes” so a majority of the human population is average. A second theory of mine is that due to evolution, our brains have developed over the centuries and will forever continue to develop as our species continues on. Just as our height and body features have evolved, our brains and intelligence have also evolved and will continue evolving. The third reason that I believe that determines intelligence is the environment. As babies and children, if we are exposed to a healthy, clean, musical environment, our intelligence will improve as opposed to those that have grown up in dirty, polluted environments. On a religious note, I think that God made every human being to be unique and special. Our intellectual capacity was planned out by God before the world was even created. Our intelligence contributes to our different personalities and individual beings, so each and every single human on this planet have their own strengths, mental or physical. Anyway, what actually determines human intelligence? The rest of my paper will explain.

According to the Merriam-Webster dictionary, intelligence can be defined as being able to comprehend, acquire information, or deal with challenging circumstances. We know intelligence to be defined as “ how smart we are.” IQ, or intelligence quotient, tests are often used to figure out the intelligence of human, but they only supply a ballpark figure of actual human intelligence. Intelligence is a vague, challenging idea to summarize with numbers.

To begin my search, I hit the Internet, magazines, and books in the library. My search has begun. Scientists say that human intelligence is related to biological and environmental factors. Biological factors include height, gender, race, the location and volume of gray matter in the brain, and the ratio of brain mass to body mass. Intelligence actually does partially count on the structure of the human brain and the genes that determine brain development. In general, East Asians rank first in intelligence measured by IQ tests, followed by Europeans, Inuit, Southeast Asians, Amerindians, Pacific Islanders, South Asians/North Africans, Sub-Saharan Africans, Australian Aborigines, and Bushmen. In the United States, the IQ scores of Asian Americans are the highest, then White Americans, Amerindians, and African Americans. Height wise, studies have shown that taller people tend to have higher IQs, probably because a greater height shows better nutrition and mental/emotional health. Average male brains weigh about 1, 325 grams, and average female brains weight about 1, 144 grams. The ratio of brain weight to body weight plays a role in determining intelligence levels, instead of brain weight. Women’s brains averaged about 100 grams less brain mass than men when body size and brain weight were considered. Females have greater areas of white matter in the brain that is related to intelligence and males have greater areas of gray matter in the brain that is related to intelligence. Women have about ten times as much white matter as men, but men have six times as much gray matter as women. In a nutshell, females and males have about the same IQ results because the specialties in the distinct brain regions add up to an equal IQ. The reason behind this theory is that women were discouraged from studying science and math and were encouraged to gather food. Men were discouraged from expressing emotions and were more academically inclined. Therefore, girls are more social and boys are more focused on academics. An interesting fact is that there is a negative correlation between fertility and intelligence, so the more intelligent minds in this world have a lower fertility rate.

The environment that humans live in also has an impact on intelligence and IQ scores. The environment affects childhood IQs more than adult IQs. Environmental factors that affect intelligence are the type of family one grows up in, education, and training. If a child grows up in a home that encourages learning, they are more likely to succeed on IQ tests. Education and intelligence have a involved relationship, because a child that scores high on IQ tests do not necessarily succeed in school, but children that so score high on IQ tests have a lower high school dropout rate. Young children that receive training, such as music and chess, have a higher intelligence. Learning music as a child is said to boost intelligence and raises verbal IQ. There are extreme differences in the structure of the brain in musicians and non-musicians. Listening to music by Mozart right before taking an IQ is shown to improve IQ scores. Students that play chess have improved mathematic skills and comprehension. Other than these factors, biological influences such as nutrition and toxic chemicals have an impact on IQs. Studies have shown that short-term prenatal malnutrition does not affect intelligence, but long term malnutrition does. Prenatal exposure to lead and alcohol will affect a child’s intellectual growth and performance on IQ tests.

For the second part of my investigation, I interviewed Doctor Frank Johnson, a professor of psychology at Florida State University, for his opinion and ideas about human intelligence. Doctor Johnson mentioned that human intelligence is determined by many things but mainly by genetics. Genetics passes down the genes of “ smartness” and affects everything about a person. Doctor Johnson’s explanation of human intelligence was very similar to what I found during my search for the answer to my question.

Whew! I learned an assortment of interesting facts on my adventure to find the answer to what actually determines human intelligence. Before I began my search, I had thought that I knew almost everything about IQs and such but I learned that I was quite far away from the answers. Genetics does affect intelligence but my ideas about how it affected intelligence were not accurate. I also learned much more about IQ than I expected. To sum it all up, intelligence is determined by some important biological and environmental factors such as gender, height, race, ratio of body weight to brain weight, location and volume of gray matter in the brain, nutrition, and exposure to toxic chemicals. I had an amusing and enthralling time discovering all about the human brain and intelligence.