Charles Darwin And His Contributions To Today’s Society

In his two-volume work, The Descent of Man and Selection in Relation to Sex (1871), Charles Darwin states “Ignorance more frequently begets confidence than does knowledge: it is those who know little, and not those who know much, who so positively assert that this or that problem will never be solved by science” (brainy quotes). This idea relates closely to the Socrates paradox “all I know, is that I know nothing” in the sense that real knowledge accepts the fact that one cannot know everything and always has the chance of being wrong in that which they know. It is this realization that allows one to challenge themself and discover true knowledge. Darwin, also known as the “Father of Evolution,” is a famous naturalist, geologist, and biologist. He is most notably known for his theory of evolution, first published in his book “On the Origin of Species” in 1859. This theory states that species develop over time when unfavorable traits are slowly eliminated through a process known as natural selection. New inherited variations then take over that allow the organism to become more well-adapted to their environment. In fact, this theory was so groundbreaking, that it is still widely accepted today. Darwin’s contributions to science greatly influence others in the scientific world and many would say that his theories lay the foundation for scientific thought and discovery in the modern world.

Charles Robert Darwin was born on the twelfth of February, 1809 in Shrewsbury, Shropshire, England. He was the fifth of sixth children born to a largely Unitarian family, though they were beginning to adopt Anglicanism. He was baptized before the age of one and attended the Unitarian Chapel alongside his mother and siblings. Darwin began attending day school run by its preacher in 1817, when he turned eight years old. By this point, Darwin had already begun to show a passion for natural history. He read nature books and collected insects and plants found while exploring the woods near his home. However, his mother passed away that June and shortly after, Darwin was shipped away to boarding school. In summer 1825, Darwin spent the summer as an apprentice doctor and attended medical school at the University of Edinburgh that following year. Although, he did not make a good medic. He considered himself dulled by the lectures and found the surgeries upsetting. His second year at the University, Darwin broadened his studies and joined the Plinian Society, a student-led organization that devoted its focus to the questioning of natural history. This early interest in natural history led Darwin to neglect his medical studies at the University and instead study nature. This caused the annoyance of his father who then sent him away again to Christ’s College, Cambridge. He was made to study for a Bachelor of Arts degree and become a clergyman. At the school, he spent his free time collecting beetles and pursuing his true passion, biology. In 1831, he graduated from college and was on the way to his career as an Anglican country parson. However, before he could take this position, Darwin was offered an opportunity of a lifetime. He was offered the opportunity to sail along the coastline of South America as a naturalist on a ship named the H.M.S. Beagle.

The trip was self-funded, but Darwin knew that he could not pass up the opportunity. However, Darwin’s father refused to pay for the expedition, calling it a useless waste of time. Luckily, Darwin’s brother-in-law was very persuasive and convinced Darwin’s father to agree to fund the voyage. Over five years, Darwin was able to visit many different locations, with the most significant being the Galapagos islands. He spent most of his time on land observing and studying the geology of land, while also adding to his natural history collections. Along with

these collections, Darwin kept many journals detailing his discoveries. They were later published in his Journal and Remarks as the third volume of The Narrative of the Voyages of H.M. Ships Adventure and Beagle in May of 1839. It was such a success that later that same year it was published as its own work. It brought him so much success that when Darwin returned to England, he was already a celebrity amongst scientific circles. Darwin's father now acknowledging his son's scientific success began organizing investments which allowed Darwin to be a self-funded gentleman scientist. He began to study the idea of transmutation, which he first became interested in during his travels aboard the H.M.S. Beagle. He was able to experience and understand how transmutation happened because of these travels. This caused some of the most influential ideas to emerge from Darwin's mind.

Darwin realized that animals that are more suited to their environment are able to survive longer and end up having more young, compared to those animals not equipped with these favorable traits. He proposed the theory of evolution and theorized that it occurred due to the process he called 'Natural Selection'. However, Darwin struggled with his new ideas because they contradicted his Christian views. Darwin feared living the same fate as his grandfather, who had been rejected for his studies on transmutation. This led him to gather more evidence before introducing his ideas to the rest of the world.

During this time, Darwin grew extensively ill and he began experiencing long spells of nausea as he tried to continue his studies. Illness had always been a prominent theme surrounding his life, but as he worked under pressure his health became even worse. However, Darwin took every opportunity still to study transmutation and continued making remarkable progress surrounding the subject. By summer 1858, he had numerous papers focusing on evolution, but had published nothing. This was until the influence of a letter pushed Darwin to publish his ideas. In the letter, Alfred Russel Wallace wrote of his own investigation after following in the footsteps of Darwin and arriving at the idea of natural selection. This was when Darwin realized he would have to publish his work soon before anyone else could take credit for the ideas. Sadly because of extreme stress, his health would grow worse following the publication of his work.

In July, Darwin revealed his findings, but morally found it wrong not to include Wallace's findings alongside his own. He decided to go public with his theory of evolution by presenting it to Linnean Society, the leading Naturalist body in Great Britain during the time. His and Wallace's findings were to be reported at the same meeting. Sadly, Darwin never made it to the meeting due to his son passing away from scarlet fever. It was not until November that Darwin finally published his work. He drew extensive criticism from the church and the press, but because Darwin was such a leading figure, people were still willing to listen. His book, On the Origin of Species by Means of Natural Selection, in which his theory of evolution was published, soon became one of the most important books ever written. It was a bestseller worldwide and went into many editions. In the fifth edition, Darwin introduced the phrase 'survival of the fittest', coined by the philosopher Hebert Spencer. It has become the phrase that has allowed many to understand Darwin's theory. Darwin gained even more acceptance in the scientific world. Many respectable philosophers saw themselves as Darwinists and supported his theories. This brought Darwin the confidence to publish things that he before only hinted upon.

In February 1871, more than a decade after the publication of On the Origin of Species by Means of Natural Selection, Darwin published The Descent of Man. This book focused upon the evolution of mankind. If Darwin had published this work before, it would have been widely

controversial that man descended from apes. While society remained divided surrounding this idea relating humans to apes, many accepted Darwin’s theory.

Darwin passed away on the nineteenth of April, 1882 when his health finally caught up to him. By the time of his death however, most scientists were convinced that Darwin’s theory on evolution and descent with genetic modification was accurate. He today is still regarded as a great scientist who revolutionized the scientific world. He has been honored by many since his passing and many geographical features have been named after Darwin in his commemoration. In addition, more than 120 species have been named in his honor. Darwin’s work is continued to be celebrated across the world. Many would agree with his autobiography, in which Darwin states that he has “acted rightly in steadily following and devoting [his] life to Science (Darwin).”