

Darwin's Theory of Evolution:

Charles Darwin, a naturalist from England, was known for his theories on evolution. His evolutionary theory stated that all living things evolved over time from a common ancestor. He believed that, as with selective breeding used by livestock owners, the best genetic traits enabled an organism to survive and pass on said traits- known as natural selection. He made these findings through his studies, as those done while traveling on the *HMS Beagle* and while in the Galapagos. In 1859 Darwin published his theory of evolution and evidence in his book *On the Origin of Species*. Charles Darwin's theory is important because it led to a religious conflict that is present even today. An offshoot of Darwin's work was "Social Darwinism" and was later used by Herbert Spencer as saying "survival of the fittest" and was used by industrialists as justification for what they did.

Sigmund Freud:

Sigmund Freud was a neurologist from Austria in the mid-late nineteenth century, known as the father of psychoanalysis. He was greatly influenced by Josef Breuer and they published their findings in *Studies in Hysteria*. Freud noted that the hysteria of his mentally ill patients appeared to stem from childhood experiences where the child had been forced to repress their negative feelings. He found that patients could understand and eventually deal with this pain when these feelings were recalled. Other important theories of Freud included the Oedipus Complex and the idea of dream interpretation and the meanings behind them. He also believed that a lot of psychological energy is sexual energy, which is repressed and controlled by rational and moral rules. He exaggerated sexual and familial roots of adult behavior, which was a reflection of family life in the Victorian Era. Sigmund Freud was important because of his status as the father of psychoanalysis and his influence on other neurologists' ideas later on.

Joseph Lister:

Joseph Lister was the developer of the antiseptic principle and found that a chemical disinfectant could help stop infection-causing bacteria from entering a wound. This British surgeon applied Louis Pasteur's findings in microbiology and advocated the use of sterile portable ports when he worked at the Glasgow Royal Infirmary. He also used carbolic acid to sterilize surgical equipment and to clean wounds, drastically reducing the deaths and complications from surgical procedures. Lister is important because his contributions made surgery safer and saved millions of lives.

Jeremy Bentham:

Jeremy Bentham was a radical British philosopher, jurist, and social reformer said to be the founder of modern utilitarianism. Utilitarianism evaluates actions based on their consequences and the happiness created for everyone affected by them. Influenced by many Enlightenment thinkers, especially John Locke and David Hume, Bentham developed a theory based on a scientific account of human nature, believing that problems must be solved to help the greatest number of people. Bentham's ideas greatly influenced Edwin Chadwick, who believed that disease and death caused poverty, as sick people could not make money and were poor. Chadwick called for the cleaning up of cities after it was proven filth led to disease and death, leading to some of Britain's first public health laws. Jeremy Bentham is important because of his influential status as a classic liberal and his inspiration to Chadwick. Because of this, people called for the cleanup of cities and some of the first public health laws were passed.