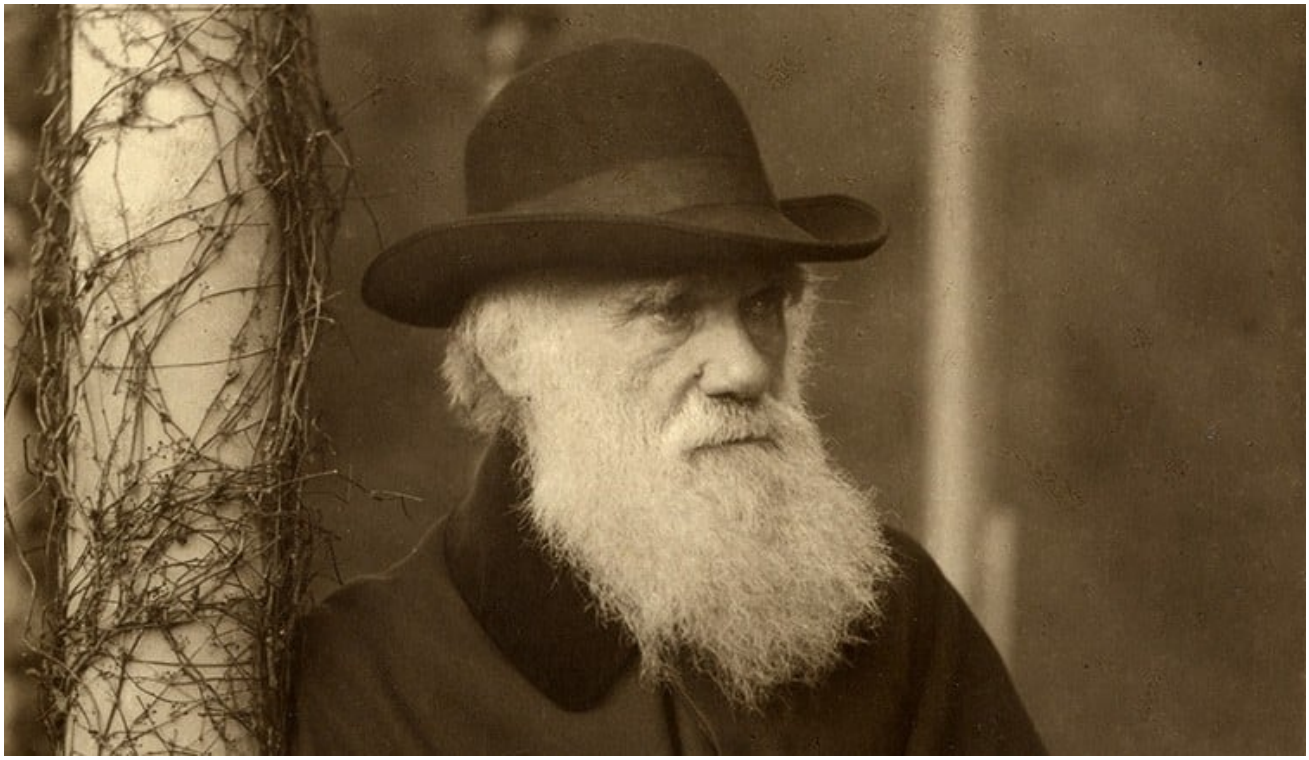
Charles Darwin and Covid-19

by Michael Curtis



Will the real Charles Darwin, British naturalist and biologist, 1809-1882, stand up? Is he the naturalist scientist, student of barnacles, animals, orchids, earthworms, objects discussed in his book, *On The Origin of Species*, 1859, a person opposed to slavery because of his belief that all human beings have a common biological parentage, and a humanist who was angry at the brutality and ill treatment against sailors on the HMS Beagle? Or, is Darwin to be viewed as the author in the *Descent of Man*, 1871, of reflections on human differences in skin, eye, hair color, the conviction that evolution was progressive, that white races were exhibiting more morally advanced attitudes than other races., that humanity is divided into distinct races, or that at some future period the civilized races of humankind will almost certainly exterminate and replace the savage races throughout the world?

Whatever, the views of the stature of Darwin as a scientist

and humanist, it is useful to apply his thought in the ongoing investigation of the pandemic, Covid-19 , the virus, part of the large family of viruses, tormenting the world at the present time and affecting 28 million people, of whom 900,000 have died. There is an urgent need to understand and explain the significance of genes, now that scientists are suggesting that viruses may be best understood as genetic material that spreads through human transmission, and probably also from human contact with animals, especially through the intermediary of bats, and exploit an organism in order to reproduce. Humans are one organism that have cells allowing viruses to reproduce. Much today is being investigated of the nature of the virus, its origin, its severity, and its spread.

Darwin is pertinent as the scientist who laid the foundation of modern evolutionary studies.

His most well-known and influential thesis was that all species arise and develop through natural selection of inherited variations that struggle for existence and increase the individual’s ability to compete, survive, and reproduce. Natural selection was the basic mechanism of evolution, a concept that was for later theorists the basis for population genetics.

Characteristics useful for survival are passed down to future generations at the expense of less useful characteristics that die out. Darwin’s argument was that survival of the fittest was the mechanism underlying the natural selection process driving the evolution of life. Genes better suited to the environment are selected for survival and passed on to the next generation. Only those forms of life best adapted to a specific environment survive. It is not, said Darwin, the most intellectual of the species that survives. It is not the strongest, but the one that is best able to adapt and adjust to the changing environment in which it finds itself.

Is Covid-19 an example of random variation and natural

selection? For the world this is important because it is not possible to have a virus-free existence. The Covid-19 virus cannot think, observe, or plan, but it is destructive, aggressively contagious, hard to kill, and its purpose is to survive. Viruses are varied and ubiquitous, and are believed to have shaped evolution, though natural selection. They are parasites who borrow from the host in order to survive and reproduce. They are also agents of evolution because they transport genetic information. It is arguable how much transmission occurs in different age groups, though the virus appears mostly to multiply in the elderly, those with chronic diseases, or have a weak immune system.

With this new infection, Covid-19, the questions can be asked whether the process of natural selection begins all over again, and who or what is the fittest since survival depends on the immune response of the person affected. The inherent problem is the fact that the cycle never ends, the viruses evolve, the hosts affected adapt, and then the viruses evade them. The consequences differ depending on the affluence of the hosts, the wealth of societies, the efficiency of governments in exercising control, the willingness of populations to use caution and obey disciplinary behavior. Most of all, the crucial factor is development of a vaccine which triggers the body’s immune system to produce antibodies which provide protection against further infection.

While the world’s scientists grapple with the difficulty of finding that vaccine, the unjustified attacks on Charles Darwin remain. In spite of the fact that his name was appropriated and misused by those like Herbert Spencer, who developed the theory of Social Darwinism with which Charles had nothing to do, and in spite of his call for abolition of slavery, in the light of present day issues he has been labelled a racist and a colonialist whose ideas of natural selection led to pernicious theories, especially those developed by his half cousin Francis Galton.

It is incongruous that the majestic statue of Charles Darwin in the main hall of the British Natural History Museum in London is the subject of criticism based on accusations of racism and imperialism. As a result of pressure by BLM protestors, the Museum is engaging in a review of its names of rooms, statues, and collections that "could potentially cause offense," legacies of colonialism, slavery, empire. One collection includes specimens of exotic birds gathered by Darwin on his expedition to Galapagos Islands on HMS Beagle in 1835, where he was probably inspired to develop his theory of evolution.

Darwin is not alone in being challenged. Others being queried for similar reasons are Francis Galton, and Hans Sloane.

Francis Galton, statistician and polymath, conscious of the role of heredity in the variations between individuals and groups, proposed ideas of improving the physical and mental make up of humans by selected healthy, intelligent people who would produce more children to build an improved human race. In 1883 Galton coined the word "eugenics," focusing on positive eugenics, suggesting improving human stock to give the more suitable races or strains of blood a better chance of success. Though he was not directly responsible, others used his ideas to formulate theories of negative eugenics, and emphasized the danger of race degeneration, thus restricting the reproduction of less appropriate populations and advocating sterilization. In June 2020, University College London where Galton taught decided to remove his name from all its buildings. This it said is to be a step to address the University's historical link with the eugenics movement.

Sir Hans Sloane is now labelled by the Natural History Museum as a "collector and slave owner." Sloane was a physician who was a doctor on the slave sugar plantations owned by his wife in Jamaica. He employed slave laborers from West Africa to assemble his collection of 800 plant specimens, as well as

animals. Sloane gave his collection, 71,000 items, to British institutions, the British Museum, the British Library, and the Natural History Museum. Yet, in August 2020 his work was removed from its prominent display in the British Museum and put in a secure cabinet, and his work is explained in the "exploitative context" of the British empire. However, though his bust may be moved in the Museum, his name remains to venerate Sloane Square, formerly Hans Town, in Chelsea London, the habitat of upper class persons embodying a sophisticated upbringing and outlook. Darwin, Galton, and Sloane would all be amused.