The Best Essay Award is intended to recognize students' efforts and achievements, and to showcase their good work. Essays receiving the Award and put under this Collection are reviewed according to the selection criteria of the Award and do NOT necessarily meet all of the requirements for a written assignment/coursework of the General Education Foundation Programme.

Man, Nature, and COVID-19: The Origins and Resolutions of the Pandemic

HEIBA Serageldin Amre Abdelaziz Energy and Environmental Engineering, Morningside College

As the number of confirmed cases of COVID-19 quickly approaches the fifteen million mark worldwide, I recall a journal entry I wrote on January 28th, 2020. In this entry, I remarked how the number of cases had just passed four thousand and how uncertainty caused by the nascent outbreak would affect my immediate future in Hong Kong. That was 172 days ago, and the number of cases since then has increased by a factor of three-and-a-half thousand. Despite some naive conversations held with friends back in Hong Kong discussing if "the whole thing would just blow over," in hindsight it now appears as though this pandemic was always inevitable. Far from being a matter of governance, transparency, or authoritarian control, I believe that this crisis was made inevitable by the very factors that will determine its ultimate outcome: our human values and our parasitic relationship with nature.

The Start of a Virus

Around the time of the Industrial Revolution, world population swelled

to one billion (Roser, Ritchie and Ortiz-Ospina). That milestone took dozens of thousands of years to achieve, and yet in just 200 years since, we have reached a population of more than seven billion people and counting. As we grow in number and prosperity, the amount of space we need to sustain our civilizations expands even more rapidly. Today, no corner of the world save for the darkest depths of the oceans are safe from human reach. Advancing from hunter-gatherer societies into agricultural ones and eventually industrialized nations means that our impacts on the delicate balance of nature have become more and more severe. We are now well into what many scientists refer to as the "Anthropocene", a new geological epoch in which man has decidedly triumphed over nature and has in many ways begun to shape it (Carrington).

In her book, *Silent Spring*, Rachel Carson deliberates exactly this, though through the context of the destructive effects of manmade herbicides and pesticides. In the beginning of the sixth chapter she writes, "Although modern man seldom remembers the fact, he could not exist without the plants that harness the sun's energy and manufacture the basic foodstuffs he depends upon for life" (141). Her emphasis on using the term *modern* man is very representative of the view expressed throughout the remainder of the text that humanity today holds very little regard for nature, apart from that which would bring him material benefit. This point is further illustrated when she writes, "Our attitude toward plants is a singularly narrow one. If we see any immediate utility in a plant we foster it. If for any reason we find its presence undesirable or merely a matter of indifference, we may condemn it to destruction forthwith" (141). If we generalize the above statement beyond its immediate contextual confines, we will find that Dr. Carson very effectively summarizes the reality of human values in the

modern world: we value only that which makes us become better off. There are, certainly, people like herself who value nature for its intrinsic worth, but through the economies and institutions we have built we have amplified the voices and actions of those who, much like the herbicide salesmen she mentions who seek to increase their profits by ruining the beauty of New England's countryside, act only out of immediate prospect for material gain (147). Such people must therefore believe that nature has value insofar as she presents to them instrumental worth.

Thus, through the institutionalization of such a way of thinking and such perceptions of the world, we have come to hold very little regard for the natural environment around us. We expand freely into untouched wilderness perfected by millions of years of evolution, and in the space of just one generation leave behind nothing but devastation. However, as Dr. Carson also points out, this behavior will surely harm us in the long run. We fail to take into account that there is a reason the natural world is the way it is, and that tampering with it so extensively will only amplify the repercussions we have been trying so hard to deny. Now, however, the consequences of our actions are hard to ignore.

From Disease to Pandemic

This disregard and ignorance of nature was critical to the development of the COVID-19 pandemic which is the disease caused by the SARS-CoV-2 virus. It belongs to the coronavirus family, a type of virus which develops primarily in animal reservoirs and may only infect or "spillover" into a new population through direct contact (Forrester-Soto, "Coronavirus: Where Do New Viruses"). By blurring the lines between where society ends and where wildlife begins, effectively declaring no place safe from the grips of our machines or the incursion of an invasive species, many—including Bill Gates—argue that it was only a matter of time before a pandemic of this proportion seized the world (Gates).

Furthermore, even though it was our value (or lack thereof) for nature and disregard for its boundaries and inherent worth that led to the emergence of this virus in human populations, it was our initial skepticism and aversion to change that has caused it to become the full-scale catastrophe that it is today. This, too, is rooted in our human values because it has become evident that, far from our predecessors who explored and discovered the world for the betterment and growth of human civilisation, we have now become reliant on growth for growth's sake. In our fast-paced lives and leveraged economies, staying static means falling behind and possibly falling apart. This is why I believe that far from enough people were willing to take the necessary measures early on to ensure the containment of the virus, and why so many people even today are unable to accept that we must change—even if just temporarily—in order to emerge on top in this battle against COVID-19. What could have been an isolated epidemic and exceptional lesson to the rest of the world quickly evolved into a global pandemic—an unrestrained wildfire kindled by humanity's disregard for nature and fanned by skepticism and aversion to change.

Possible Solutions

If our entanglement in this crisis was as a result of the role of our human values and beliefs about nature, it will be the role of scientific knowledge to help ensure safe passage into the future. There are currently dozens of different projects underway around the world to find a potential vaccine for the novel coronavirus, but it is not yet clear which—if any— will prove successful. This has resulted in what can be described as "a race to find the cure", with governments as well as private corporations throwing their hats into the ring.

Though it would be amicable to believe that the race to find a vaccine is purely out of want to save human lives, I think it is just as equally a competition to potentially seize control over and reap the rewards of a post-COVID-19 world. Such a strategy invariably weaponizes scientific knowledge and the scientific community as a whole, a road which tends to lead to the triumph of one nation, civilization, or way of thinking over another. Like the manufacturing of the two atomic bombs used to coerce Imperial Japan into capitulation, science can be used as a tool to literally and figuratively shift the balance of power in the world. Nathan Sivin conveys this in his essay "Why the Scientific Revolution Did Not Take Place in China", arguing that it would be a mistake to think that science and its role in society today is universal. He states, "science and technology have spread throughout the world, but that has not made them universal, in the sense of transcending European patterns of thought" (225). To him, modern science is undoubtedly reliant on its social and historical origins which have, through efforts not necessarily always related to the science itself but perhaps instead to politics and culture, been predominantly Western. Sivin further argues that "true universality would require modern technology to coexist with and serve cultural diversity rather than standardizing it out of existence" (225). Though he refrains from explicitly stating whether a truly

universal science is possible in the future, I take his statement to condemn science as being unavoidably an apparatus through which an increasingly globalized world becomes standardized.

Thus, any possible solution in the form of a vaccine to the coronavirus brought about by science will see scientific knowledge become a politicized matter, a role I strongly believe it should not play. The pandemic has only aggravated mistrust and racial prejudice between world governments and populations, and just as Trump has called COVID-19 the "Chinese Virus", so too can a vaccine be dubbed the "American Vaccine" or the "Chinese Vaccine" (if it so happens that the vaccine is discovered in America or China) by those aiming to sow dissent or boast superiority (Gan). Such titles would surely escalate the ". . . profound differences between the character of modern scientific activity in the contemporary People's Republic of China and United States" (Sivin 226). Therefore a vaccine could, over time, export the particular role played by scientific knowledge in the country in which the vaccine was found to the rest of the world. Sivin uses the example of "[t]he great disparity in Chinese and American definitions of psychology" as "one particularly obvious example that affects the life and death of particular theories in one society or the other", but many such fields of study could be impacted—perhaps intentionally—by a country using its scientific knowledge and practices to influence the rest of the world for benefits far unassociated with the ideally-nonpartisan role of science (226). As a result, it can be argued that whether they hope to cement their role as a world leader in the scientific community or transfer that title unto themselves, such an opportunity is surely presented to the earth's vying global powers by the COVID-19 crisis.

However, a critique to the argument laid out above must also be acknowledged, since it could very well be that the solution to the pandemic will not come in the form of viral resistance, but rather coexistence. Several countries-including my own-have started to openly welcome talk of living alongside the virus, citing the extensive damage done to their economies and the uncertain prospects of a vaccine as reasons to "go back to normal". In either of these two paths, scientific knowledge can and must be used, but the way it is used and the solution which is favored will depend on our own human values and what we perceive to be of more importance. Though it would cost untold human lives, perhaps a resolution such as coexistence would force us to reexamine our views towards nature, possibility shifting our beliefs towards it from those which authorize us to parasitically benefit from its destruction to those which are centerpiece to a revived respect towards nature and its inherent worth; a view in which humans view themselves as being a part of nature, not apart from it. Such a paradigm shift, though admittedly idealistic, could help begin the process of reestablishing a balance between humans, nature, and the symbiosis of scientific knowledge and human and environmental well-being-not only to prevent further catastrophes such as this one, but to usher in an entirely new age of human organization and thought.

The Future

What I sought to argue and reflect upon in writing this paper as stated in the introduction is that our flawed human values and our relationship with nature are what fundamentally caused the COVID-19 crisis, but they are also what will eventually relieve us from it. Whether through applying scientific knowledge in finding a vaccine (and thereby shifting the role of science in the world thereafter) or by coming to terms with the virus and returning "back to normal", it will be our human values that pave the way forward. Will we continue to fight an uncertain battle to find a vaccine and save invaluable human lives (though such a fight may be fueled by ulterior motives), or will we assign more importance to our economies and financial markets, pump them full of life and through them interpret what "healthy" looks like? Or is it possible that, reinterpreting the allegory of the cave in Plato's *Republic* (6–7), man will be "freed and suddenly compelled to stand up, turn his neck around, walk, and look up towards the light", finally seeing "the things whose shadows he had seen before" which he mistook for being the true nature of reality?

Perhaps only now, when we have been forced to sit at home and actually think and reflect, will we be able to question the notion of going "back to normal"; a notion championed by those privileged few traversing the road between us and the fire, casting as shadows on a wall false hopes and ideals we have been made to look at and accept as irrefutable. Going back to normal as defined by existing notions of normalcy would mean defeat— a failure on our part to learn from this crisis and readjust our beliefs about nature, about science, about ourselves as humans, and redefine what truly is of value and what is not. But if we are somehow successful in achieving such change and manage even the slightest glimpse of sunlight such that our eyes become reaccustomed to the new light of a better life, maybe then will be able to recognize how dark our cave dwelling has been all these years.

Works Cited

- Carrington, Damian. "The Anthropocene Epoch: Scientists Declare Dawn of Human-influenced Age." *The Guardian*, 29 Aug. 2016, www. theguardian.com/environment/2016/aug/29/declare-anthropoceneepoch-experts-urge-geological-congress-human-impact-earth. Accessed 20 Jul. 2020.
- Carson, Rachel, Silent Spring, 1990. Rpt. in In Dialogue with Nature: Textbook for General Education Foundation Programme. Edited by Chi-wang Chan, Wai-man Szeto, and Wing-hung Wong. Rev. 2nd ed., Office of University General Education, The Chinese U of Hong Kong, 2016, pp. 141–156.
- Forrester-Soto, Naomi. "Coronavirus: Where Do New Viruses Come From?" *The Conversation*, 14 Apr. 2020, theconversation.com/coronaviruswhere-do-new-viruses-come-from-136105. Accessed 19 Jul. 2020.
- Gan, Nectar. "Coronavirus Has Created a Rift Between the US and China that May Take a Generation to Heal." *CNN*, 9 May 2020, edition.cnn. com/2020/05/08/asia/us-china-relations-nationalism-intl-hnk/index. html. Accessed 9 May 2020.
- Gates, Bill. "The First Modern Pandemic." *Gatesnotes.com*, 23 Apr. 2020, www.gatesnotes.com/Health/Pandemic-Innovation. Accessed 8 May 2020.
- Plato. *Republic*, 2004. Translated by C. D. C. Reeve. Rpt. in *In Dialogue with Nature: Textbook for General Education Foundation Programme*.
 Edited by Chi-wang Chan, Wai-man Szeto, and Wing-hung Wong.
 Rev. 2nd ed., Office of University General Education, The Chinese U of Hong Kong, 2016, pp. 5–10.

- Roser, Max, Hannah Ritchie and Esteban Ortiz-Ospina. "World Population Growth." *Our World in Data*, May 2019, ourworldindata.org/worldpopulation-growth. Accessed 8 May 2020.
- Sivin, Nathan. "Why the Scientific Revolution Did Not Take Place in China—or Didn't It?", 1982. Rpt. in *In Dialogue with Nature: Textbook* for General Education Foundation Programme. Edited by Chi-wang Chan, Wai-man Szeto and Wing-hung Wong. Rev. 2nd ed., Office of University General Education, The Chinese U of Hong Kong, 2016, pp. 217–242.

* * * * * * * * * *

Teacher's comment:

The essay by Serageldin Heiba is impressive for a number of reasons.

First of all, he provides a comprehensive analysis of the COVID-19 problem. All the fundamental aspects are identified and delineated briefly but accurately: historical developments, beliefs, human values, and facts of nature. He presents them in plain language and a pleasant rhetorical form showing how they interplay in our personal and social life.

Of particular importance is his choice not to shy away from presenting his personal views and preferences. At the same time, he is able to point out difficulties and limitations of his own views, thus providing intellectually honest and engaging arguments.

Finally, and most interestingly, the author is able to offer a nonideological proposal for the future of human life through its relationship with nature. It is non-ideological because it recognizes the central role of human values (and of how we rank them) and of the fact that, ultimately, what type of life we lead is ours to choose: "... the solution which is favored will depend on our own human values and what we perceive to be of more importance." His proposal addresses both the spiritual and the practical needs of a human being, while distinguishing between fundamental and secondary values. He envisions a "symbiosis of scientific knowledge and human and environmental well-being". Not "growth for growth's sake" but exploring and discovering "the world for the betterment and growth of human civilisation" as "a part of nature, not apart from it". (COLANERO Klaus John Charles)