

Killing Biology

Introduction. The basis of evolution is differential survival and reproduction. Through natural selection, heritable traits promoting successful differential survival and reproduction increase in the population.

Before the Industrial Revolution, war, disease, and famine maintained a check on human population growth. Wealthy people, less influenced by these events, out survived and out-reproduced the poor, resulting in their heritable traits increasing in the population. The foregoing is the basis of our Differencing Engine.

“Growth of World Population,” figure 3.3, makes obvious that, prior to the Industrial Revolution, our growth rate was close to zero. Disease, war, and famine kept us in check, and it was only after the advent of the Industrial Revolution that these natural constraints to growth lessened, allowing our population growth to explode. It did.

Darwinian fitness, at least as we have used it, no longer operates nearly as intensely as before. There is still war, but compared to our Neolithic days, death due to war is minimal. Famine only occurs in the poorest corners of the world, places where food aid cannot reach. Not only do we know what causes disease and how to prevent it but, once sick, we know how to effect cures. (However, do keep in mind that evolving bacteria and viruses could still defeat us.) With modern birth control methods, reproduction can be purely a matter of choice. We indulge in the procreative act but have control over its consequence. Another point is that we are now acquiring the ability to modify the code of life and engineer our own adaptations—no need to wait for evolution.

Before the Industrial Revolution, traits promoting survival and reproduction increased in the population. One consequence of the Industrial Revolution was the minimizing of constraints

to growth. Currently, though constraints still exist, they are not nearly as formidable. After the Industrial Revolution, surviving and reproducing are becoming independent of heritable traits; now, they are more dependent on technology. Traits that used to increase in the population, because they increased fitness, no longer do. We have learned how to bypass Mother Nature; we have become masters of our own fitness. This is our new world, bright or not.

We developed our Differencing Engine with the premise that those with higher living standards had more surviving progeny. Before the Industrial Revolution, that was true. Today it is not. In the modern, advanced world, and in most of the remaining, everyone, poor or rich, survives. Additionally, based on personal choice, everyone can reproduce or not. It is now a matter of personal choice, not biological imperative. The key conclusion is that in our modern world, wealth does not confer fitness, at least not nearly to the extent it used to.

Importantly, our Differencing Engine no longer runs. Accordingly, populations will no longer change as they used to. Their engine of change has stopped.