

The search for the truth and the nature of reality via science is arguably the grandest initiative of mankind. But in what ways might it be biased and how might it have proceeded differently?

So much of our science has been a product of, or advanced via, technology, especially technology derived from warfare. If our species was less violent, or resources on our planet less scarce, could we be so much further ahead in terms of scientific progress? If humans were more violent would we be wiped for existence or rather even further along in our scientific progress?

How many factors could play into our particular path to scientific progress? If we had existed on a planet closer to the center of our galaxy, could the likelihood of a larger number of possible astronomical observations have driven faster advances in the physical sciences? Consider how Kepler and Newton worked together or Hubble and Einstein. Does human upbringing, dependent on years of parental care, bias us towards theories of a paternal creator or a maternal spirit behind Nature? As Arthur C Clarke has suggested, would an ant-like species with additional intelligence also believe in a God creator? Does life on a planet with a single star lead to similar biases toward a single creator, single origin, or single Grand Unified Theory equation? If human history had zero religion, or only a single religion, would that have led to faster progress? If our lifespans were significantly longer, or shorter, might our rate of progress have been different? What about if our birth rates were much lower or higher? Would high population pressures lead to greater expansion and innovation and more genius minds on the planet, or would it lead to more wars from scarcity and more suffering and less time and resources for education and science? What about our brain's memory? Had we evolved as a single gender would we have more intelligence and focus, or perhaps less and less drive from less competitive mating spirit? What if we had evolved on a single continent or as only a single race or as the only carnivore? Has violence and survival, the “mother of necessity,” lead to more progress or just wasted time, energy, lives, and resources - consider the loss of Karl Schwarzschild who died in World War 1 amongst the many of millions of creative minds lost in warfare.

Imagine a world where civilization focused “inward” instead of a reductionist approach to physical science. Might a humanity that understood and could communicate with our subconscious mind gain wisdom far beyond any super collider experiments? What ancient “secrets” and experience might some Jungian “collective mind” hold regarding existence and reality? Might a society that has experimented with altered states of consciousness found existential secrets via the results of thousands of formal LSD “trips”? Might a society that has solved the mental health problems of violence, cruelty, and/or suffering lead to a world where scientific progress advances exponentially faster as so much of mankind’s brutal existence would have been removed that hinders so much genius and creativity in our world. Consider the eons of lost ideas and progress from the subjugation of women and minorities. What if our entire species had only a single language?

Had the secrets of biology been revealed before major advances like Relativity, Quantum Mechanics, and Nuclear weapons, might patterns in DNA reveal constructs or messages related to life's ancient origins or the nature of our existence? Might the tools and patterns observed in the code of life be a more prescient signpost toward grand answers perhaps than particle physics or field theories? Imagine humanity able to communicate with other life on our planet e.g., whales, dogs, dolphins, chimps, etc. What wisdom might we be missing from these existentially equal perspectives?

What if computation had been discovered or engineered much earlier in history? Modern computer scientists evangelize a vision of a super-computing artificial general intelligence or "Singularity" where neuron-level processing occurs via photons at the speed of light thus enabling a super-computing "mind" to model millions of man years of mental processing in mere seconds. Imagine an industrial world where with this engineering feat has been achieved and science then leap frogs by vast jumps as humans no longer crawl but rather fly towards major discoveries in any and all fields of inquiry via this Singularity tool. Why waste decades doing calculations and experiments when we could simply create the ultimate calculator and simulator.

Our particular human history itself has unique interruptions and "bumps." Had World War 1 not interrupted the amazing progress in Quantum Mechanics at the start of the 20th Century might the puzzles of Quantum Foundations and Quantum Decoherence have been solved? Might the mental and physical epigenetic damage from the World Wars lead to major delays in progress? What about the Black Plague, the destruction of the library of Alexandria, or the construction of nuclear weapons?

Might worlds where non-commutative math, chaos theory and fractals, and/or resurgence math been discovered earlier be much further along than us? Might a world where super-computers were built much earlier have run cellular automata programs - akin to the famous "game of life" - over such a long period of time that they have realized and identified (discovered) deep secrets of our reality? Might they have verified or nullified the Simulation Hypothesis of Nick Bostrom?

From these alternative science scenarios and questions, might we glean some wisdom into how we can improve our current science and quest for faster and better progress. So many human endeavors, if not all of them, contain the bias of language, discrimination, and politics. First and foremost, we must always remain open minded. If an idea is "crackpot," then observations and tests will ultimately demonstrate it to be so, but no idea, no matter the origin or style, should be excluded outright or without any consideration. Consider how candidates applying for jobs have tremendous success when their name, school, age, etc. are removed from their resume. Technology can, and likely will, be used to help filter preprint papers and their ideas to notify relevant teams regardless of the origin of the idea. The success of computers in terms of their emergency room diagnosis of patients having greater accuracy than their human physician counterparts is a first step in this direction. Winston Churchill noted that "the empires

of the future are the empires of the mind," so, in this spirit, perhaps education should be considered a universal right and be made free of cost or tuition and more effort made to identify talent, to identify "late bloomers," to enable career change, to support and promote diversity of background and opinions, and to prevent stagnation in progress from privilege, lack of merit, nepotism, and discrimination. A hyper-competitive world with plugged-in humans overloaded with stress and multi-tasking without time to rest, heal, and organize and bombarded with ads, login screens, and computer LED screens, may be the furthest thing from a reality that promotes intellectual and scientific progress.