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**Is it Noble? Nietzschean Reflections on Transhumanism**

Abstract: This article explores Nietzsche’s relevance to contemporary debates over transhumanism. This increasingly prominent politico-scientific creed advocates the deliberate use of emerging life sciences and technology in order to guide the next phase of human evolution. I argue that it is a mistake to see Nietzsche as an ally and precursor to modern transhumanism, a misperception stems from the declarations about the *Übermensch* and the overcoming of man in *Thus Spoke Zarathustra*. By contrast, I suggest that Nietzsche’s ambivalence toward science and outright hostility toward utilitarian projects like extending life and eliminating suffering mean that he would be skeptical of the promises made by advocates of controlled evolution. Instead, his voice is a useful corrective to a conversation that has become too simplistic. Unlike the many scientists who view transhumanist proposals through rose-colored glasses, Nietzsche’s work can reveal to us the dangers of a technological quest for mastery of nature, extended life, and an end to suffering. On the other hand, unlike religious traditionalists and neo-Aristotelian philosophers who insist that an enduring human nature exists and that the state should use its coercive powers to sustain it, Nietzsche suggests that human nature must evolve to face new historical challenges.

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*“The evolution of the higher animals and of man, and the awakening of consciousness at a particular stage. The picture is something like this: Though the ether is ﬁlled with vibrations, the world is dark. But one day, man opens his seeing eye, and there is light. In the ﬁrst place, our language describes a picture. What is to be done with the picture, how it is to be used, is still obscure. Quite clearly, however, it must be explored if we want to understand the sense of our words. But the picture seems to spare us this work: it already points to a particular use. This is how it takes us in.”*

– Wittgenstein, *Philosophical Investigations*[[1]](#endnote-1)

*“This is how souls of the noble kind would have it: they want nothing for free, and life least of all.”*

* Zarathustra, *Thus Spoke Zarathustra[[2]](#endnote-2)*

**I. Evolution as a Vision of Order**

Is contemporary political thought organized around some vision of the whole? It is no secret that this has been one of the key questions modern theory. From Nietzsche and Weber to Lyotard and Habermas, thinkers working from widely disparate perspectives have argued persuasively that it is not, that thinking now takes place without the aid (or baggage) of historical metanarratives and metaphysical nostrums.[[3]](#endnote-3) Some have been more positive about this development than others. Mark Lilla, for example, calls the division between practical life and cosmological speculation the “Great Separation,” and suggests that it might be a basic condition modern liberal democracy.[[4]](#endnote-4) Others despair: they see only a lamentable process of disenchantment and moral relativism.[[5]](#endnote-5) Much political debate today is, in essence, little more than a back and forth between these two camps, both of whom agree that we moderns lack a vision of the whole.

One purpose of this paper is to cast doubt on the assumption. In fact, if we pay attention to language as it is actually used, we can locate a series of “master concepts” that effectively circumscribe the horizon within which thought can take place. By doing so, these concepts function as “regulative ideals;” that is, they provide an order around which thinking gravitates. It may be the case that multiple ideas fill this role. Nevertheless, I would like to suggest that “evolution” is the most pervasive organizing concept in broad use today. Evolution (and its kindred notions of cumulative change, process, selection, and fitness) has replaced for us the ordering function that the concept of history once served, just as history replaced older metaphysical ideas about nature, and just as nature replaced ideas about the divine order of the cosmos.[[6]](#endnote-6) This phenomenon is evident in the ambient culture, where books with titles like *The Evolution of Everything*, *Cells to Civilizations,* and *The Evolution of God* are regular bestsellers.[[7]](#endnote-7) The same trend exists inside academia, where every discipline from cosmology to political science and economics to “process theology” has incorporated evolutionary categories in some fashion.[[8]](#endnote-8) There are a few holdouts, but for all practical purposes, evolution is the most broadly accepted picture of the whole that we have today. No subject has been fully explained until it has been seen from and evolutionary perspective, and there is no subject that cannot be so explained. To the extent that this is true, it has important consequences for the ways in which we orient ourselves toward the world.

As Wittgenstein notes, at the most abstract level evolution functions not as an empty idea or scientific hypothesis but rather as a kind of picture. (I invite anyone who doubts this to simply Google the term and peruse the thousands of images, charts, and schematics that result). Moreover, it is not simply “neutral” and inert. Instead, this picture is active in the sense that it seems to stage for its viewers a complicated set of possible responses. As Wittgenstein says, “it already points to a particular use.” For one thing, evolution seems to intensify notions of struggle and survival, as writers like Herbert Spencer immediately recognized in the years following Darwin. It also conjures images of “deep time,” a past and future composed of timeless eons out of mind, as we find in the fiction of Lovecraft. An enumeration of these cultural effects could be extended on indefinitely.

More important is the way this picture calls into question the true extent of human agency. On the one hand, it can imply the idea of being caught up a process beyond our control. This has obvious implications for conceptions of morality, freedom, and moral agency. To take a current example, Jordan Peterson argues in his recent blockbuster *12 Rules to Life* that, since hierarchical social structures are present even in relatively simple creatures such as lobsters, these “dominance hierarchies” are natural and humans have only a limited power to alter them.[[9]](#endnote-9) We are thus entitled to take a laissez faire attitude and relieved of a certain ethical burden.

On the other hand, evolution can have precisely the opposite effect, drastically increasing both our hopes and the demands placed upon us. This is because the picture also hints at the idea that, once the mechanisms are properly understood, the whole process can be ordered, improved, guided, and perhaps even mastered. Julian Huxley describes this more ambitious sensibility in his famous 1957 article “Transhumanism”:

“It is as if man had suddenly been appointed managing director of the biggest business of all, the business of evolution…What is more, he can’t refuse the job…he is in point of fact determining the future direction of evolution on this earth. That is his inescapable destiny, and the sooner he realizes it and starts believing in it, the better for all concerned…”[[10]](#endnote-10)

Huxley suggests that control of evolution is more than just possible: it is an obligation, a sort of conscious stewardship for life that is perhaps the highest duty of all. For him, transhumanism fills a function similar to older religious and metaphysical ideals. By situating humanity within a comprehensive vision of the cosmos, it prescribes an ethos, a set of duties, and hints toward a promise of future redemption.

This rest of this article attempts to explore transhumanism through a series of reflections that have emerged from my engagement with the philosophy of Friedrich Nietzsche. First, I situate Nietzsche in current debates over transhumanism. I argue that he sits midway between those who advocate transhumanist enhancement as a cure for human frailty and those like Francis Fukuyama and Michael Sandel who remain opposed. Both Sandel and Fukuyama base their opposition on a neo-Aristotelian conception of human nature; that is, they argue transhumanism threatens to undermine the very traits that make us distinctively human. Second, I briefly compare Nietzsche and Sandel in more detail. I show that both thinkers approach the question of human enhancement by asking what effects it is likely to have on the human character. Does it make us more heroic? Less ambitious? Less willing to brave life’s contingencies? In particular, Sandel argues that the quest for mastery risks undermining our appreciation of the “given” nature of life. Part of virtue, according to Sandel, is the ability to recognize life as a gift. By contrast, Nietzsche shows that a simple binary between mastery and gift cannot be sustained, and that what appears as given is sometimes the result of previous attempts at mastery. I conclude by reviewing the evolution of Western views on the promise of science and technology. On my reading, Nietzsche’s thought occupies a middle ground: it allows us to see the promise, perhaps even the inevitability, of a more affirmative stance toward human enhancement, even as it is subtle enough to reveal the many dangers inherent in any such process.

The reader is entitled to ask why we need Nietzsche to think through these questions. There are several reasons. First, Nietzsche was perhaps the first philosopher to explore what he called “the horizon of the infinite.”[[11]](#endnote-11) His understanding of Darwin was more radical than nearly all his contemporaries. Nietzsche’s pictured a universe in which nature – including human nature – was in a constant state of becoming, continually evolving and being selected. Finally, for the broader public Nietzsche is indelibly associated with projects like eugenics and transhumanism, in almost the same way that Marx has become synonymous with socialism, Hegel with history, and Burke with conservatism.[[12]](#endnote-12) This means that to some degree what we are able to think about transhumanism depends on our various interpretations of Nietzsche.

According to one popular view, Nietzsche is a Promethean theorist of evolution and a precursor of modern transhumanism. Although I will argue that this interpretation is essentially incorrect, it contains a grain of truth. It clearly draws support from Nietzsche’s use of terms like *Übermensch* and his emphasis on the importance of *Züchtung* (breeding or cultivation).[[13]](#endnote-13) And recent scholarship has shown that Nietzsche often used such language in a quite literal manner.[[14]](#endnote-14) There are other connections as well. In one of the more thoughtful comparisons between Nietzsche and transhumanism, Stefan Sorgner points to a whole set of common views. First, he argues, “[B]oth transhumanists and Nietzsche hold a dynamic view of nature and values.” Second, “Both Nietzsche and transhumanists have an outlook on the world which diverges significantly from the traditional Christian one.” Third, both Nietzsche and transhumanists see values as perspectives that individuals can adopt and alter. Finally, he writes, both transhumanists and Nietzsche seek to overcome humanity in its current incarnation.[[15]](#endnote-15)

Despite the aforementioned arguments, it is not clear that Nietzsche that has much to say about the program we now call transhumanism. It is even less clear that, if he did speak to the issue directly, it would be in flattering terms. Indeed, Nietzsche’s attitude toward modern science is incredibly ambiguous, and most of his reservations about the scientific project would apply to transhumanist proposals for genetic enhancement.

Yes, Nietzsche often praises the empirical mindset of modern science and the experimental orientation toward life it engenders; this is especially true in the works of his middle period.[[16]](#endnote-16) However, in the both the early and later works Nietzsche is far more critical of scientific rationalism. In *The Birth of Tragedy,* it is Socrates – who the young Nietzsche paints as the true ancestor of scientific Enlightenment – who ultimately saps the living vitality of Greek culture.[[17]](#endnote-17) In *Beyond Good and Evil,* he derides the idea that science produces anything like deep metaphysical truth.[[18]](#endnote-18) And, as Max More points out, Nietzsche has virtually nothing to say about the role of technology, the *sine qua non* of contemporary transhumanism.[[19]](#endnote-19) Nietzsche usually speaks of the *Übermensch* as akin to the artist or the statesman, not the scientist.[[20]](#endnote-20) On this account, it is simply a mistake for transhumanists to regard him as an ally.[[21]](#endnote-21)

Zarathustra declares that “Man is something that shall be overcome” and asks “What have you done to overcome him?”[[22]](#endnote-22) Yet, Zarathustra has something else in mind than Huxley does. Again, this is because Nietzsche’s general critique of science also applies directly to transhumanism. First, he argues that the hopes modernity has transferred to the scientific project (hopes for certainty, for progress, for increasing mastery, etc.) show it to be a kind of God substitute.[[23]](#endnote-23) Second, he suggests that the values of science (unity of truth, anthropocentrism, etc.) are a kind of secularized version of Christian theology.[[24]](#endnote-24) For this reason science posits a vision of redemption upon which it cannot deliver.

Most importantly, Nietzsche questions the idea of using science to improve the human estate through innovation and technology. The utilitarian project of extending the span of human life and minimizing suffering for all is precisely the contemptible ideology that Nietzsche attributes to the last man in *Zarathustra*. According to Michael Allen Gillespie, Zarathustra – and by extension Nietzsche – rejects “modern liberal/democratic/socialist life” science enables and the “somnambulant consumerism” that goes with it.[[25]](#endnote-25) In other words, Nietzsche suggests that science is or risks becoming the handmaiden to a political ideology that is ignoble because, above all things, it seeks to avoid striving, suffering, risk, and uncertainty. The scientific project can have a corrosive effect on the human character. To the extent that we attempt to pursue mastery of nature and fail, we become frustrated and filled with existential resentment at a life of suffering with solutions appear so near at hand. To the extent that we succeed, we become satiated and incapable of noble aspirations.[[26]](#endnote-26) This is Nietzsche’s worry.

**II. Perspectives on the Transhumanist Moment: The Advocates**

In their 2015 book *Evolving Ourselves: How Unnatural Selection and Nonrandom Mutation are Changing Life of Earth*, former Harvard Medical School professor Steve Gullians and futurist Juan Enriquez make a series of radical claims, nearly all of which seem custom designed to discomfit the layman in the social sciences. For most of evolutionary history, they argue, it was typical to find multiple species of the genus *Homo* living on the Earth at once.[[27]](#endnote-27) From this perspective, the current dominance of *Homo Sapiens* is something of an aberration, and we should expect – and even encourage – the reemergence of multiple new human species in the future.

What is more, they suggest that such speciation may already be underway via a process of rapid evolution that has been caused by the enormous social and environmental changes that have followed in the wake of industrial capitalism. While this transition has brought many benefits from longer life expectancies to powerful technologies, the unintended consequences of industrialism, many of which are only now coming into view, are troublesome. In fact, our constant exposure to new chemicals, combined with changes in lifestyle and new stressors, are causing the human body to mutate is surprising ways. Gullians and Enriquez, note, for example, that the exponential and simultaneous increase in the rates of obesity, food allergies, and autism all point to rapid evolution.[[28]](#endnote-28) For much of human history war and famine constituted a rigorous test of genetic fitness, but the elimination of these evils across much of the globe as has unintended consequences: harmful genetic traits are now more likely to persist across multiple generations. The consequence, they suggest, is that “if we keep going the way we are going, our grandkids may not be as healthy tomorrow.”[[29]](#endnote-29) For Gullians and Enriquez, the implication of this scenario is clear: deliberate intervention in the genotype may be necessary simply to ensure the health of humanity in the near future.

Disturbingly, these many of these trends are not limited to human society but are also evident throughout the rest of the natural world, where our activates are causing all manner of flora and fauna to grow fatter, mutate, or go extinct.[[30]](#endnote-30) We inhabit the Anthropocene, in which humans may represent a bigger factor in what lives and dies than Darwinian natural selection. From this perspective, humans have already taken on the vast ecological responsibility. The conscious and adoption of the full transhumanist – that is, the deliberately making decisions about the future of life on Earth – might actually more benign than our current mode of conduct.

Gullians and Enriquez also insist that this situation is something to be celebrated, not feared, since we are on the cusp of an epoch in which evolution, increasingly under human control, will become “non-natural and non-random.”[[31]](#endnote-31) Where the eugenic fantasies of the late 19th century proved to be premature, they point to the promise of the dramatic expansion of the life sciences in recent decades. Mapping the human genome was merely a first step. More important are the recent advances in virology and the emergence of entirely new fields such as epigenetics, which have given us a far subtler grasp of evolutionary change. And new methods of genetic engineering like CRISPR have broth this change within reach of conscious control. In the not so distant future, they suggest that controlled evolution might be useful to combat autism and the other harmful effects of rapid evolution.

On a much longer time scale, planned genetic engineering will be necessary for the survival of the human species. Stephen Hawking has recently argued that, given our dwindling resources and propensity to mutual destruction, humankind will become extinct unless space travel becomes possible within the next two centuries.[[32]](#endnote-32) But this project faces a number of complications, many of them having to do with the human body. Indeed, the problems are legion. Our short life spans make the massive time scale of interstellar travel implausible. The fact that we evolved to cope with gravity means that prolonged exposure to Zero G environments affects us adversely, causing everything from brain impairment to weakening of the muscles, including the heart.[[33]](#endnote-33) As Gullians and Enriquez note, it is difficult to see how these and myriad other problems can be addressed with deliberately re-engineering the human organism to thrive in new environments, allowing us to survive the hazards of space travel and life on other worlds. In the ultimate statement of their transhumanist program, they declare:

“We face extraordinary challenges. But we also have an array of opportunities never previously available to any other life form on this planet. It’s our responsibility to choose wisely, to continue to build, to prepare ourselves for very different environments, to eventually leave Earth. After dozens of versions of hominins, it would be bullheaded to think our species does not continuously change, that we cannot improve the species, that we will not beget other species. We cannot improve ourselves if we do not recognize what is happening and how quickly, and then forthrightly create a world we would wish for the variety of humans who will surely follow us. Darwin would have been a better guide. But he left us enough to build on as we embark upon the greatest of all human adventures: the creation of our own successors. For better and worse, we are increasingly in charge. We are the primary drivers of change. We will directly and indirectly determine what lives, what dies, where, and when. We are in a different phase of evolution; the future of life is now in our hands.”[[34]](#endnote-34)

This statement, with its strange combination of world-historical ambition and respect for the future of life, is perhaps as clear a statement of the transhumanist stance as one is likely to find.

Understandably, given the travails of the 20th century, the call to engineer humanity so that it can march boldly into the future continues to be polarizing. Many are, I think rightly, ambivalent. For instance, Peter Sloterdijk has argued that man and machine will eventually fuse into a single entity.[[35]](#endnote-35) Whatever our reservations might me about this, he sees it as more or less inevitable and as merely the extension of humanity’s attempt to master itself and its environment. Others, much like Gullians and Enriquez, are positively ecstatic. The quest for immortality and a scientific “cure for death” has become a prominent fad in some quarters of contemporary libertarianism.[[36]](#endnote-36) Interestingly, the 2016 election cycle featured a good deal of public handwringing about the presence of the so-called “Nietzschean transhumanist” views of billionaire investor Peter Theil, one of the most prominent backers of Donald Trump.[[37]](#endnote-37) This may be the first time that transhumanist philosophy played a role in the debate surrounding a presidential campaign, but I suspect that it will not be the last.

**III. Perspectives on the Transhumanist Moment: Critics**

On the other hand, critics have been legion. Here I will be focused on what I take to be the two main counterarguments. One focuses one the ethical dilemmas that transhumanism creates, the other on the way that enhancement threatens to generate a series of social pathologies. These positions are represented by Michael Sandal and Francis Fukuyama, respectively.

In *The Case Against Perfection,* Michael Sandal worries that genetic enhancement engenders an ethos of mastery, control, and perfection that undermines our appreciation of the given, the unpredictable, and the inherent nobility of striving.[[38]](#endnote-38) The transhumanist program would rob us of the ability to be our best selves, even as it increases our power over nature. At the most general level, Sandel sees three deep problems with current plans for genetic enhancement. First, he argues, human life is composed of activities that are designed to elicit certain qualities of excellence and virtue. Like Nietzsche, then, he worries about the effect of science on the human character. He points out that we have a different kind of respect for live rather than recorded music because we prize the poise and skill of the musician. We admire great athletes who push against the limits of their abilities. We see the nobility in parents who care for their children, even when they are less than perfect.[[39]](#endnote-39) He fears that genetic enhancement, by making perfection easy, would rob us of the opportunities to display excellence through striving. Not only would life be stripped of much of its meaning, but our character – our ability to become the sorts of people we desire to be – would be degraded in the process.

Sandel’s second worry approaches the same question from the opposite perspective. Here the danger is not that we will fail to strive for greatness once enchantment makes greatness easy. Instead, the problem is that as more and more aspects of reality are subject to conscious control, we may increasingly face the pressures of direct responsibility for all aspects of life. From this angle, the problem:

“is the explosion, not the erosion of responsibility...One of the [current] benefits of seeing ourselves as creatures of nature, God, or fortune is that we are not wholly responsible for the way we are. The more we become masters of our genetic endowments, the greater burden we bear for the talents we have and the way we perform...Today when a basketball player misses a rebound, his coach can blame him for being out of position. Tomorrow the coach may blame him for being too short.”[[40]](#endnote-40)

In this scenario, humans are primarily responsible for *who they are* rather than *what they* *do*. The difference here is subtle but important. For one thing, much of Western morality and law is largely based on on sanctions for actions; one wonders how these traditions could survive a world in which we are responsible for everything about ourselves, down to our gender, our race, and our “natural” endowments. Sandel also points to the obvious existential pressures result when we are directly responsible for choosing who we are – failing to select the best traits, the most useful traits. This is a world in which we continually bear the “burden of decision” and the guilt of choosing incorrectly.

Finally, society could become less progressive and more adversarial once people are held responsible for their own “natural” abilities. Why should we pity to unemployment or the disabled when their situation may be due to nothing more than poor genetic decisions made by themselves or their parents? “Changing our nature,” he insists, “to fit the world, rather than changing the world to fit our nature, is actually the deepest form of disempowerment. It distracts us from reflecting critically on the world, and deadens the impulse to social and political improvement.”[[41]](#endnote-41)

Sandel brings to light important moral problems, but other critics focus more on the social consequences of genetic enhancement. In a 2004 interview, Francis Fukuyama declared transhumanism, rather than, say, religious extremism, to be the most dangerous idea in the world.[[42]](#endnote-42) For him, the problem is that the benefits often seem so clear, and the negative consequence so that it is often difficult to make an accurate evaluation. In some respects, Fukuyama’s stance is incredibly pessimistic about the future, since he argues that societies are going to be faced with overwhelming short-term temptations. The historical record of humanity when faced with such situations is, to say the least, less than promising. For instance, virtually everyone can recognize the promise of technologies that hold the promise to drastically extend the span of human life. It seems wrong to deny citizens access to such technologies, especially if they are freely chosen.

There problem here is that the perceived individual benefits seem self-evident, whereas the long term unintended consequences for the broader social order are murky and will likely be borne by later generations, creating a kind of inter-generational moral hazard. For instance, problems can arise because innovations in different areas of medical research do not always proceed at the same rate. What happens if we gain the ability to extend the average span of human life before we have the ability to stave off the decline in mental and physical abilities that are normal aspects of aging? This scenario raises numerous problems. To begin with, there is the problematic ethical status of extending life span why decreasing the quality of life. Moreover, society and younger generations would face the enormous burden of caring for a growing class of dependents whose productive years have long since passed. This could cause economic problems, but it could also be the source of serious intergenerational resentments and political instability.

Let us, then, re-run the same thought experiment with more optimistic assumptions about the future of technology: this time both the average length of life increases in tandem with our ability to ensure that human retain their cognitive and physical abilities far into old age. This outcome also generates significant problems. Fukuyama worries that a glut of able-bodied elderly might lead to a sclerotic gerontocracy, where the youth cohort is effectively an unofficial underclass.[[43]](#endnote-43) It is also possible that longer lives could slow the pace of social change, since the procession of generations is one way the new ideas and practices come to the forefront. Transhumanist enhancement is likely to intensify class conflict, too. It will be most accessible to those with economic and political resources, and the result could be inequality and social stratification on a scale unlike anything that has been witnessed for centuries.[[44]](#endnote-44)

What is the solution here? It seems that there is only option. Both Fukuyama and Sandel argue that political regulation of enhancement technologies is possible, morally acceptable, and consistent with the freedoms of a liberal society. Indeed, Fukuyama goes one step further: once asked whether a government has the right to tell citizens that they must die rather than seek immortality, Fukuyama immediately responded, “Yes, absolutely.”[[45]](#endnote-45) On this view, death becomes an obligation of citizenship, enforceable by the coercive powers of the state.

I believe that Fukuyama has not taken enough time to consider the disturbing implications of his position. The obvious question is one of political authority. Is it right for the state to prescribe the conditions under which individuals must die? What are the penalties for failing to comply with these regulations? But the more difficult question is whether such prohibitions would even be feasible, and what would be the unintended consequences of trying and failing to prohibit enhancements. If such technologies exist but citizens are denied access to them, they are likely to be carried out a) on the black market or b) in other states with looser regulations. Indeed, Fukuyama himself is not fully consistent on this issue. Although he assures readers that it is entirely possible to regulate enhancement procedures, in his interviews on the subject he has admitted that they are likely to take place in the near future, probably in Asia. This is because, unlike Western moral schemas, Asian thought does not draw sharp distinctions between the human and the rest of nature. As a result, the prospect of designing or moving away from human nature does not raise the same moral dilemmas.[[46]](#endnote-46) All this suggests that, despite Fukuyama’s explicit claims to the contrary, genetic enchantment is likely to occur in at least some states. It is also likely that these states will reap considerable economic and military advantages. Once this happens, other states will probably feel compelled to follow a similar route due to the normal logic of international competition. The upshot is that, whatever moral problems result from human enhancement, it is likely to become a significant political issue at some point within the 21st century.

**IV. Nietzschean Perspectives on Transhumanism**

At this point, we have explored the core arguments of the two main camps in current debates over transhumanism. Its Promethean advocates see guided evolution as a project that can virtually eliminate suffering and that will ensure the necessary to the future survival of humanity. Opponents like Sandel and Fukuyama argue that, due to its corrosive effects on human nature and social stability, the state has an obligation to prohibit radical transhumanism. Nietzsche’s thought offers a third view. It is important because he starts from a completely different set of assumptions about the value of science and the contours of human nature. He therefore offers an effective critique that allows us to see the weaknesses of both positions.

Against the transhumanists, Nietzsche is skeptical of the value of science. (Note that skepticism is not the same thing as either suspicion or hostility.) As Leo Strauss shows in his lectures on *Beyond Good and Evil,* Nietzsche saw natural science and the scientific ethos as defining elements of modernity. For him, the question is, “Why science?”[[47]](#endnote-47) In other words, Nietzsche asks what value science has for life and the human character. Does it enhance our zest for life, our virtues, and our abilities to conceive projects and see them through to end? Or does science have a corrosive effect, making us dependent on technologies? Does science make us better able to bear the suffering inherent in life, or does it make us more susceptible to the inevitable pains of existence? Transhumanists typically do not ask these questions because they assume that science is, all things considered, simply a force for good. On the other hand, Nietzsche tragic view of the human predicament causes him to be more attuned to the way that the good tends to be inextricably bound evil.[[48]](#endnote-48)

This is all to say that Nietzsche’s presuppositions and basic questions are thus substantially different from those of both the advocates and supporters of transhumanism. However, the problem of the value of science have a long history in philosophy, extending back to the Greeks. As is so often the case, Plato, Rousseau, and Schopenhauer are Nietzsche’s major interlocuters when he considers this question. For example, In Book III of the *Republic,* Socrates questions the value of medicine, for the simple reason that a society with a great many doctors is already a sick society.[[49]](#endnote-49) In the *Phaedrus*, Socrates suggests mnemonic technologies like writing are harmful to humans because the degrade our natural abilities.[[50]](#endnote-50) Rousseau rocketed to fame when he made a similar argument in his *Discourse on the Sciences* *and Arts* at the high tide of the Enlightenment.[[51]](#endnote-51) Again, Schopenhauer – Nietzsche’s first philosophical love – was greatly interested in the science of the early 19th century. Large portions of his *The World as Will and Representation* are devoted to contemporary scientific debates about such topics as the nature of matter or the role of the retina in perceiving color. However, Schopenhauer also argues that since life is characterized by willing and striving, and these traits necessarily require obstacles and frustration, that the amount of suffering in the world was basically fixed.[[52]](#endnote-52) For him, science appears to be intrinsically valuable, but limited in its potential to alter the basic contours of the human predicament or the sources of our discontent.

Plato, Rousseau, and Schopenhauer all call attention to the paradox that even as science manages to ease the burdens of life, it also opens up new avenues for suffering. It thereby offers holds out the promise of redemption that it cannot fulfill. We saw some of the reasons why earlier during the discussion of *Evolving Ourselves.* Gullans and Enriquez argue that many of our current problems – from autism to obesity to mass extinctions – are due to the unintended consequence of the technological powers humans have acquired in recent centuries. From this they draw the lesson that a much-improved understanding of evolution combined with new technologies will allow humans to overcome these problems. But will this next round of intervention not produce its own unintended consequences, and so on, *ad nauseum*? The point is that transhumanists conflate two separate issues. They may be right that an explicit program of technology mastery may be required to cope with severe crisis that are already in play. At the same time, they may be wrong in their eschatological sensibility that this will usher in some radiant tomorrow, in which the dilemmas that have always plagued human life will be finally eradicated

In essence, Plato, Rousseau, and Schopenhauer comprise the skeptical pole of a longstanding philosophical debate about the value of science. On the other end stand thinkers such as Aristotle, Hobbes, and Mill who are, to various degrees, more confident about the powers of reason to improve the human estate though mastery of the physical world. It is this older debate that Nietzsche is participating in when he raises the question “Why science?”He comes down far closer to Rousseau and Plato than Aristotle and Locke. Although he prizes the empirical and experimental aspects of science and technology, Nietzsche also points to two major problems. One concerns what he calls the “nobility” of the whole enterprise. Like today’s transhumanists, the highest goal for many scientific optimists since early modernity has been threefold: the removal of suffering, the extension of life, and what I would call the “democratization” to ability. Let’s examine each of these goals along with Nietzsche critique of them.

Nietzsche opposes science to what he calls the spirt of nobility. “The noble taste which seems to *deny* suffering.”[[53]](#endnote-53) Here his point is not that suffering is in itself good. Rather, Nietzsche suggests that the ability to pursue higher goals depends on our ability to persevere though suffering, even to the extent of denying that it is really suffering at all. Conversely, when the removal of pain and suffering becomes the highest value – as it does for many contemporary transhumanists – we lose the ability to make distinctions about what values are worth suffering for.

The natural consequence of this outlook is that mere life itself becomes the primary value, and the extension of life the primary goal. By contrast, Zarathustra insists that it is a noble virtue to know how to “die at the right time,” in the service of some greater aspiration.[[54]](#endnote-54) Perhaps Nietzsche’s most extended treatment of the noble ethos can be found in Zarathustra’s speech “On the Tree on the Mountain.” Here Zarathustra declares:

“Know that a noble person stands in everyone’s way. A noble person also stands in the way of the good: and even when they call him a good man, they do so in order to get rid of him. The noble person wants to create new things and a new virtue. The good person wants old things, and for old things to be preserved. But it is not the danger of the noble one that he will become a good person, but a churl, a mocker, an annihilator. Oh, I knew noble people who lost their highest hope. And then they slandered all high hopes. Then they lived churlishly in brief pleasures, scarcely casting their goals beyond the day... Once they thought of becoming heroes: now they are libertines.”[[55]](#endnote-55)

Like the transhumanists, the ignoble souls that Zarathustra parodies are chiefly concerned to avoid pain and to do what they want. Although they ape the language of heroes, they are in fact often little more than libertines and hedonists. For these reason Nietzsche insists that it is impossible “to weld together ‘la science’ and ‘la noblesse’” because “‘la science’ belongs with democracy; what could be plainer?”[[56]](#endnote-56) Again, like Plato in the *Republic,* Nietzsche suggests that the unthinking union of technology and democracy creates a political order centered on the pursuit of egalitarian hedonism.

In fact, we can see this sort of disposition developing already in the depictions of transhumanist technology in popular culture, where its chief benefit is that both pleasure and new abilities become immediately accessible to all. For example, I am reminded of the 1999 film *The Matrix,* where viewers quickly learn that the high-tech world of virtual reality can 1) create realistic simulations of beautiful women and 2) teach Neo to become a master of martial arts in mere seconds. This is, in essence, a fantasy of unearned excellence. Nietzsche doubts whether such a thing exists. “This is how souls of the noble kind,” he writes, “want nothing for free, and life least of all.”[[57]](#endnote-57)

What are we to take from the preceding discussion? First, despite some more or less superficial similarities in rhetorical style, Nietzsche diverges from transhumanists on a series of important issues. Above all, he sees science as something that must be sublimated within a broader view of life, rather than as a good in itself. Second, Nietzsche highlights the thinly veiled providentialism at the heart of modern transhumanism. It hints at an end to suffering. It promises give meaning to our lives by a vision of future redemption in which the last shall be first and the first will also be first.

However, none of this this should not be taken to imply that Nietzsche agrees with the opponents of transhumanism. For one thing, his view of human nature as something in a constant state of flux becoming puts him at odds with commenters like Sandel and Fukuyama. Zarathustra says, “Mankind is a rope fastened between animal and overman–aropeover an abyss,” that is, an entity without a timeless nature.[[58]](#endnote-58) By contrast, Sandel and Fukuyama – together perhaps the two most well-known contemporary critics of transhumanism – approach the issues of human nature from the perspective of neo-Aristotelianism. In other words, both make a series of related claims about human nature that they trace back to Aristotle:

1. There is a definable human nature
2. There is thus a definable human good or set of goods
3. We can know these goods via rational reflection
4. We are both obligated and naturally inclined to seek these goods
5. We are therefore obligated to retain fidelity to our “given” nature

Now, it should be evident that these various claims do not logically imply one another, even if they do share a kind of elective affinity. Unfortunately, this is not the place to adjudicate the question of whether a human nature in fact exists. However, it is also clear that Nietzsche disagrees with virtually all of these claims. At the very least, we can see that the project of conserving human nature is not open to him. Nor could he conceive of allowing the state – what Zarathustra calls the “coldest of all cold monsters”[[59]](#endnote-59) – to be the final arbiter of human destiny.

Nietzsche also calls into the question the validity of Sandel’s thoughts on the distinction between mastery and appreciation of the given. For example, Sandel argues that medical technology is good because it seeks only to restore the normal functioning of the human organism – and thus it respects the given – whereas proposals for genetic enhancement are dangerous because they animated by a desire for mastery. However, much of the medical technology we now take for granted, and which thus appears to us as a modest intervention in the normal human organism, only emerged because of a prior quest for mastery that took place in some time out of mind. From vaccines to modern agricultural techniques, very little of what allows for the “normal functioning” of modern humans is the outcome of a long quest for scientific power. From Francis Bacon onward, theorists of modernity have been quite open about this fact. The distinction between mastery and respect for the gift of life is not as easy to uphold as Sandel suggests. The two are bound up together in human life.

Partly for this reason, Nietzsche would also be, I think, more willing to engage in the question of whether some form of fundamental change in human nature might be necessary, simply for the survival of humanity in the relatively short term. In that sense, his openness to the future places Nietzsche closer to the transhumanists like the authors of *Evolving Ourselves* on the question of whether, *in principle,* human nature should be altered. At the same time, he recognizes that the overt providentialism of transhumanist philosophy, and understands that this eschatological impulse carries its own risks and dangers.

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