

## Transhumanism

1. The pace and magnitude of the evolution of virtual technologies has given rise to a movement among the most technophilic that envisions and advocates for a post-human future; a future in which the ever increasing technological transcendence of limitations creates a life form that we today would no longer even recognize as human.
2. A few quotes from “The Transhumanist Manifesto” by Simon Young gives one a feel for the heady, ecstatic character of this vision and sheds light on why transhumanists find it so inspiring and galvanizing.
  - a. At the birth of capitalism, Jean Jacques Rousseau begins his essay “On the Social Contract” with the words (1) “Man is born free, yet lives everywhere in chains.” Simon Young creatively draws upon these words in beginning his Transhumanist Manifesto: (2) “Man is *not* born free but is everywhere in *biological* chains.”
  - b. In the early days of industrial capitalism, at the beginning of his “Communist Manifesto” Karl Marx expanded upon Rousseau’s words: “Workers of the world unite! You have nothing to lose but your chains!” (3) Young continues analogously: “People of the world Unite! You have nothing to lose but your *biological* chains!”
  - c. Further aphoristic passages follow to drive the message home:
    - a. (4) Humanity- a species so weak it defines its own condition as tragic! How long must we endure such a pitiful condition?
    - b. (5) What is a human being? A weak mind in a decaying body...Human beings are the slaves of a three-part genetic program reading, “survive, reproduce, and self-destruct. Why should we accept death, disease and decay like some helpless sheep? (6) Let us learn to think beyond the human condition: *Not what humanity is, but what it could be!*

This is the language of a manifesto to be sure. But even more, it is the language of prophecy. Further, I would argue it is the language of religious prophecy, calling upon a new virtual sacred to animate a new post-human ground and horizon of meaning and significance. What is this new sacred and how do virtual technologies already begin to draw us towards it? This is the principle question to ask ourselves as we elaborate the transhumanist vision.

3. First, we need to consider the kinds of limitations transhumanists seek to transcend: (1) physical, (2) cognitive, (3) affective, and ultimately (4) mortality itself, the ultimate human evil in the eyes of most moderns who identify themselves with their individual existence and, as we shall see, and even more the emergent digital natives, for whom personal encounters with death is ever rarer.
4. Secondly within each domain, we need to distinguish different degrees of technological enhancement. Virtual technologies can be (1) therapeutic, in which (2) deficient function is restored to (3) normal performance activity, or (4) optimizing, in which normal performance is enhanced to (5) peak human functioning, or finally (6) radical enhancement technologies, where functioning is improved (7) beyond human capacities altogether.
5. Let's start with new virtual technologies that transcend physical limitations.
  - (1) Therapeutically smart prosthetics have already evolved that restore full functioning to those who have lost a limb through an immediate electronic interface between nerve endings and the prosthetic device such that it moves at will. Haptic, thermal, pressure and other forms of sensory feedback from the device to the nerves, which would be necessary for full restoration of function is at various stages of development.
    - a. (2) More dramatically yet is the use of Brain-Machine Interface technology (BMI) to enable those with full body paralysis to write and speak through a device by thought alone. Neural imaging correlated with certain letters are detected by electrodes in the brain and then typed on a screen or vocalized through a synthesizer. Early indications are that as many as 25% of those thought to be in a coma, may actually be conscious and accessible through a BMI device
    - b. (3) Optimizing technologies is common in sports. For example, Roger Bannister was the first to break the four minute mile back in 1954. It was not in a race, but in a specially designed run, with a couple "rabbits" to pace him.
    - c. (4) However running under four minute miles is now table stakes for world class track and field racing. Over 1,400 athletes have sub-four minute mile personal bests. What was peak human performance is the new normal for world class runners. Some attribute this to Bannister having broken an "imagination" barrier,

by showing that it could be done. However technological advances in footwear, track, training and even running style likely play a greater role.

6. Steroids in sports can arguably be considered a transhuman enhancement. It is also a good example of how these categories blur in practice. Steroids reduce muscle inflammation. In that sense they are often used therapeutically. However by reducing muscle inflammation it also enables athletes to train harder and more frequently than they could otherwise, leading to performances that are arguably “superhuman”. For example Roger Maris’ single season home run record, set in 1961 held for thirty five years only to be crushed by Mark Maquire (70), Sammy Sosa, and Barry Bonds (73) within a couple years of one another. Later it was discovered that they all had taken steroids to build up such superhuman strength. Sporting bodies have to regulate what innovations enhance human capacities and which surpass human capacities altogether. For presumably the meaning and value of athletic competition lies in competition bringing out not the best performance overall, but the best human performance.
7. Turning to cognitive enhancements, one can begin with amphetamines such as (1) Adderall that enhance concentration. For those suffering from attention deficit hyperactivity disorder (ADHD) Adderall is a therapeutic intervention that restores normal cognitive performance. On the other hand for those without ADHD, Adderall can enhance attention towards optimal levels, and perhaps sometimes even beyond. Given no harmful side effects, is there a problem with regular students being pharmaceutically enhanced to optimal attentiveness so as to be able to cram for tests in classes they have not studied for during the semester? Or again, some critics claim that the rising prevalence of ADHD is itself the product of an inhuman multitasking lifestyle. Is the solution to distraction due to multitasking a technological fix that enables us to multitask even better?
  - a. Military applications also raise unsettling questions. Contemporary fighters require preternatural attentiveness and reaction times only possible through amphetamines. Even during world war two, soldiers on all sides of the conflict used “pep pills” or “go pills” in combat. (2) The Nazi Blitzkrieg required not only technological innovations in tanks and artillery but also pharmaceutical innovations to enable soldiers to “run through walls” fighting ferociously for three days without a rest.

- b. (3) A new cognitive enhancement just coming on the market is cortical magnetic stimulation headsets. This is beginning to be used therapeutically for treating difficult cases of depression that resist current anti-depressant medications. But it is also being marketed to athletes and musicians to enhance muscle memory and so learn complex fine motor movements more quickly. Should this be treated like steroids, or is it that in this area the quality of the performance is more important than whether or not it remains at a human level?
  - c. (4) Discussion of neural implants take us into the transhuman even more quickly.  
(5) The ocular ear implant therapeutically restores human hearing to the deaf, but  
(6) future neural downloads of whole bodies of knowledge or immediate neural access to the internet clearly lead us into a posthuman future.
8. With regards to affective enhancements, here too the therapeutic/enhancement continuum will vary from person to person. (1) Anti-depressants promise to save many suffering depression from suicidal despair, but taken by people within a normal range of affect, critics worry (2) it can produce people who are “better than well.” Some resist proscribed medications for fear that their mood will no longer be attributable to them as the product of their own character. On the other hand, (3) (chemical mood enhancement is as old as alcohol. In the nineteenth century there were movements within Protestant evangelicalism to ban not only intoxicants but even stimulants, such as (4) coffee and cigarettes. When do drugs move from improving to surpassing human mood?
- a. (6) In the late sixties a “war on drugs” was launched, to ambiguous effect. More recently marijuana use has become decriminalized, first for therapeutic purposes, but now increasingly for “normal” “recreational” use. Marijuana is moving into from a transhuman to an optimizing mood enhancer.
  - b. (7) But what of ecstasy, a drug so named for imparting a state of mystical ecstasy without the long ascetical training in religious meditative practices. What could be wrong with being able to induce such a blissful state on command, whenever and wherever by whomever? Or would its dissociation from the conduct of the rest of one’s life only ensure a fragmented sense of self?
  - c. (8) So too there is new research in controlled microdoses of LSD to explore its therapeutic potential, again for depressives. Research into hallucinogens in

general, shut down by governmental regulation in the early seventies are being restarted to explore the “higher” states of consciousness they can induce, not as a permanent transhuman way of life altogether but as a psychedelic adventure from which we can learn more about the limitations inherent to our “normal” mental functioning. Is there a problem with conducting such research? Do they induce states of consciousness not meant for humans to experience, experiences corrosive to a meaningful human life? Even if true, though, is this just another reason to transcend our humanity altogether?

9. Finally, the last domain of human enhancement I want to address is that of mortality itself. As mentioned earlier, death has often been seen as the ultimate evil of the human condition. Young for example considers it the ultimate bug in our natural programming. We have evolved to die so as to make room for our offspring and prolong the species.
  - a. But with so much technological power, why do we still need to die? (1) Modern medicine in industrial societies has already doubled human life expectancy in the last century or so. (2) What if we could find cures for the remaining diseases, now largely those of old age.
  - b. (3) In fact what if we could stop or even reverse the aging process itself? There are a number of biological processes at work here, but many seem to have genetic triggers. What if we could edit those genes, repair them when needed, keep them turned off, or turn back on those processes that keep the body so vital in its youth?
  - c. (4) Finally with medical 4-d printing coming online, we could swap out failing organs with no risk of tissue rejection, as they would be reprinted/grown from the hosts own cells.
  - d. (5) Finally, the pixie dust of this vision, is the promise of nanobots that could be injected by the millions into the body to repair damaged cells, assist the immune system in fighting viral and biotic infection and maintain our circulatory infrastructure. The most optimistic transhumanists are claiming that by “surfing the wave” of medical advance, with new cures coming on line just as we begin to fall prey to them, the first human being to live a thousand years may already be born! 20% of those born today are already conservatively expected to live a full 100 years.

10. But what would radical life extension mean for human identity? (1) Since the rise of speech, human identity has had a narrative structure. We are the stories we tell or write about ourselves often to ourselves. (2) But without an ending off on the horizon to plot our lives around, could we sustain a narrative arc that continues on and on indefinitely? (3) Or would human meaning and identity fragment into a mere aggregate of episodes without an ongoing narrative to integrate them into a single story. Would our lives resemble an actors credits, a series of roles enacted in no particular order? (4) And without death to haunt us, would we ever wake up from the day to day immediacy of our existence to ask questions of direction and purpose. (5) How would we ever come to appreciate what we could always take for granted?
11. Whether one considers oneself religious or no, these are inherently religious questions, calling for religious responses. (1) For it envisions technological enhancements that do not simply ameliorate the human condition but to transcend our human condition altogether, raising questions around the meaning and value of such a radically enhanced, posthuman life. Thus, while adopting the language of science it is itself a religion, (2) one that does not simply believe the truths of science, but believes *in* science; it puts its faith in evolving virtual technologies to save us from traditional human limitations now seen as demonic, relative to what we could become. As noted at the outset of this video, transhumanism is a (3) prophetic call to use and further develop our virtual technologies to evolve beyond our humanity, to take the next posthuman step in cosmic evolution. (3) What ultimately motivates such a vision? What inspires its oracles addressing our future? What do transhumanists hold sacred?