



« THERE IS CONTINUITY BETWEEN THE MYTHS AND THE DIFFERENT VIEWS ON HUMAN ENHANCEMENT. »

« WHEN ENHANCEMENT CRITICS INVOKE ICARUS, THEY GIVE VOICE TO THE AWARENESS OF DANGER AND HUMILITY IN THE FACE OF HUMAN LIMITATION CONVEYED BY THAT MYTH SINCE ANTIQUITY. »

Chapter 5

Heracles or Icarus : Mythological References in the Human Enhancement Debate

T.FRANSEN AND E.MALMQVIST

«LET US BE THE NEW PROMETHEANS. LET US UNITE IN OUR COMMITMENT TO BOLDLY GO WHERE NONE HAVE GONE BEFORE IN SEARCH OF THE KNOWLEDGE BY WHICH TO TRANSCEND THE LIMITATIONS OF THE HUMAN CONDITION»

(Young 2006)

"IN HIS MOMENT OF TRIUMPH. PROMETHEAN MAN WILL BECOME ALSO A CONTENTED COW"

(Kass 2002).

An intense debate currently rages over the possibility and desirability of radically altering human characteristics by means of technologies such as in vitro fertilization (IVF), cloning, genetic engineering, information technologies, nanotechnologies and artificial intelligence. Some vigorously advocate using such technologies not only to overcome disease and disability but also to “enhance” our capabilities and expand our cognitive and physical powers far beyond the normal range – and perhaps even to pursue immortality. Others passionately argue against

such “human enhancement” and object that seeking to cross the limits of human “nature” would threaten human dignity, erode the meaning of valuable social practices or even of life itself, or result in other disastrous consequences.

Nothing seems more novel than this debate launched as the result of the most recently developed technologies. It is therefore striking that this same debate is frequently riddled with ancient mythological references. Both proponents and opponents of human enhancement

refer to these characters in support of their arguments. This chapter explores the significance of these references. We show how both sides of the “enhancement debate” invoke mythological figures and explain how these figures relate to their views. We end by suggesting that Greek mythology influences the manner in which we think about enhancement more deeply than is commonly recognized and that acknowledging this influence might help cool down the frequently overheated debate.

MYTHOLOGICAL CHARACTERS INVOKED BY PROPONENTS OF ENHANCEMENT

Proponents of human enhancement are optimistic about the prospects of using newly developed technologies to overcome our current limitations. Some advocate for considerably expanding the human life span. For instance, David Gems – a scientist working on the biological process of aging – argues that:

« AGING SHOULD NOT BE CONSIDERED A "NORMAL PROCESS" BUT A "SPECIAL FORM OF DISEASE". AT LEAST IN HUMAN BEINGS (GEMS 2011, 109). »

Gems believes that this redefini-

tion may help us more efficiently work on human age-related diseases. Currently, each illness on the broad spectrum of age-related diseases is studied independently. To emphasize the lack of effectiveness that this single approach has for patients' health, Gems use the metaphor of the hydra that Heracles must kill. “For clinicians, the challenge of treating illnesses in the elderly must at times seem like Heracles' triumphs of combating the multi-headed Hydra. Each time one head was severed, two more would sprout in its place” (110). Although Heracles' task seemed impossible at the outset, he finally succeeded by burning the Hydra's neck stumps after each decapitation. Gems suggests an even more radical approach to fighting ill health in the elderly: “In principle, a more effective way to tackle human age-related illness would be to intervene in ageing itself. Deceleration of ageing provides protection against the full spectrum of diseases of ageing thereby assuring late-life health, and strikes at the heart of the Hydra of ageing” (ibid.).

For Gems, the Hydra represents aging and death, two evils that should be resisted and/or overcome. There is one important aspect of



Heracles' tale that seems particularly relevant to his argument that Gems does not explicitly discuss. The Hydra was the guardian of the world of death. Therefore, by analogy, killing the Hydra of aging may offer us some semblance of control over death. In other words, fighting aging may reduce age-related illnesses, which in turn may delay death and truly increase the human lifespan. Although Gems acknowledges that some may feel uncomfortable with it, "the only serious option is to adapt as best as we can to a future involving ever greater extension of lifespan" (111). He is confident that we will have the Heracleian courage and capacity to overcome our current human condition and believes that we have a responsibility to do so.

Gerontologist Aubrey de Grey is another firm supporter of life extension whose views have been cast in mythological language. De Grey believes that "we are close enough [to the biomedical revolution] that our action (or inaction...) today will affect the date at which ageing is defeated". (De Grey and Rae 2007, xi) He expects "many people alive today to live to one thousand years of age and to avoid age-related health problems even

at that age" (325). His enthusiasm and strong belief in scientific progress is aptly described in the book's dedication as "tirelessly and courageously bearing Promethean fire" (vii).

Prometheus was a clever Titan god. When Zeus devised a plan to wipe out the human species, Prometheus took pity on the mortals, stole fire from heaven and gave it to them. He also granted wisdom to these still rather ignorant beings, taught them various techniques and arts, and in several versions of the myth, he even took part in the creation of humankind.

BECAUSE OF HIS COURAGEOUS, BOUNDARY-CROSSING, CREATIVE AND TECHNOLOGICAL NATURE, PROMETHEUS HAS BECOME A POPULAR ICON WITHIN THE HUMAN ENHANCEMENT DEBATE.

With Promethean courage, de Grey bears the fire of humanity's future improvement, which is life extension.

The figure of Prometheus is also assigned an important role by Simon Young, the author of *Designer Evolution*. Young asserts that :

« THE GREATEST TRAGEDIES IN LIFE ARE HUMAN BIOLOGICAL LIMITATIONS AND DEATH. »

Unwilling to accept the suffering and restrictions that accompany such limitations, he put his trust in the power of science to eventually conquer them. “Humanity will take evolution out of the hands of butterfingere nature into its own [...] hands” (38). For him, “Designed Evolution” is the inevitable next step in humanity’s history of self-improvement; overcoming our biological limitations is no mere wish but our natural destiny. “[The] goal of human life is survival – we are programmed that way” (15-16). Young claims that humans naturally have

“THE INSTINCTIVE DRIVE OF A CONSCIOUS ENTITY TO EXPAND ITS ABILITIES IN PURSUIT OF EVER-INCREASING SURVIVABILITY AND WELL-BEING” (39).

This “will to evolve” is incarnate in the figure of Prometheus, who represents “the innate human drive to increase knowledge and abilities, even at the expense of present pains” (ibid.) – the drive to progress, improve, enhance. Although Young

acknowledges that a future of self-enhancement is not without risks, he believes that rejecting the “Prometheus Drive” would mean to remain forever constrained by the power of our limitations and to continue suffering from disease and death. He writes: “Let us be the New Prometheans. Let us unite in our commitment to boldly go where none have gone before in search of the knowledge by which to transcend the limitations of the human condition. Let us cast aside cowardice and seize the torch of Prometheus with both hands” (40). In relating the tale of Prometheus, Young encourages people to employ Promethean bravery and creativity, to enlighten themselves with the fire of knowledge that will enable them to end their suffering, overcome their limitations and enhance themselves.

MYTHOLOGICAL CHARACTERS INVOKED BY OPPONENTS OF HUMAN ENHANCEMENT

In contrast to the views surveyed thus far, many people seriously question the possibilities and/or desirability of technologically enhancing human beings. The ethicist Alfred Nordmann strongly criticizes the speculative and fantasi-

zing character of the pro-enhancement arguments: “The contemporary fascination with space travel, artificial intelligence, and genetic engineering has led to the resurrection of the age-old visions of the transcendent power of artifacts and techniques to transform the human condition. We are constantly being presented with retellings of the classic tales of conquest and ingenuity that can be subsumed under the ‘myth of progress’. More than two millennia after the sun melted the wings of Icarus for coming too close, we are still under the spell of hubris, trying to fly higher and higher” (Nordmann 2007, 32).

The myth Nordmann refers to is that of Daedalus and Icarus. While imprisoned with his son Icarus in a labyrinth on Crete, the clever craftsman Daedalus thought of a way that the two might take flight and escape their imprisonment. Thus, Daedalus created two pairs of wings out of feathers and wax, one pair for himself and one pair for his son. Before they flew off, Daedalus warned Icarus not to fly too high, but when he found himself moving freely through the air, Icarus became captivated by his enthusiasm and flew higher and

higher. As he neared the sun, the heat melted the wax of his wings, his feathers fell off and the boy fell into the sea and drowned.

THIS MYTH IS ABOUT HUBRIS: IT WARNS OF THE DANGERS OF UNREALISTIC IMAGINATION, OVER-AMBITION, AND OVERESTIMATION OF ONE'S OWN POWERS.

In noting this myth, Nordmann implicitly warns of the danger that people might let themselves become seized by Icarian hubris when imagining, believing in and pursuing unrealistic objectives, such as transforming the human condition. The message here is that caution is important because over-ambition can be truly perilous.

The political philosopher Michael Sandel (2004) and the scientist and medical ethicist Leon Kass (2002) have both criticized the attitude that they believe motivates human efforts at self-enhancement. Both these thinkers believe that a deeply objectionable desire to master nature lies at the root of these efforts. Notably, following the enhancement advocates discussed above, Sandel and Kass employ the allegorical value of the myth of Prometheus. However,

for these critics of self-enhancement, the story does not symbolize heroism or progress but instead warns of the dangers of ambition. Sandel argues that biotechnological enhancement represents “[...] a Promethean aspiration to remake nature, including human nature, to serve our purposes and satisfy our desires. The problem is not the drift to mechanism but the drive to mastery.

And what the drive to mastery misses and may even destroy is an appreciation of the gifted character of human powers and achievement” (Sandel 2004, 54). Losing this appreciation, Sandel believes, threatens to undermine some of society’s most cherished values: humility in the face of human imperfection and solidarity with the least fortunate.

To a greater degree than Sandel, Kass believes that :

« WHAT IS AT STAKE IS OUR VERY HUMANITY. »

Because the goals of medicine – which traditionally have been understood to be healing diseases and avoiding death – have recently been extended to include human enhancement, “human nature itself lies on

the operating table” (Kass 2002, 4). According to Kass, we risk “dehumanization”, and we risk reaching the point at which we will no longer pursue anything “humanly richer or higher” (9) than health, amusement and pleasure. The problem with the project of enhancing humans is that it extends the drive to control nature to our very minds and souls.

THE “PROMETHEAN MAN”. AS CHARACTERIZED BY KASS. IS THE HUMAN WHO HAS LOST ALL HER HUMANITY DUE TO HER UNSATISFIED URGE FOR TECHNOLOGICAL MASTERY – A MATERIALIST DRIVE SO STRONG IN ITS SEARCH FOR ENHANCEMENT THAT IT TAKES AWAY PRECISELY WHAT MADE HER HUMAN AND WHAT GAVE LIFE MEANING: DESIRE. PAIN. PLEASURE. LOVE AND, ESSENTIALLY. MORTALITY.

“Here, the final technical conquest of his own nature would almost certainly leave mankind utterly enfeebled [...]. Homogenisation, mediocrity, pacification, drug-induced contentment, debasement of taste, souls without loves and longings – these are the inevitable results of making the essence of human nature the last project for technical mastery. In his moment of triumph, Promethean man will become also a

contented cow" (48).

Sandel's and Kass's worries correspond to the side of the Prometheus myth that enhancement advocates tend to overlook. When Zeus discovered his misdeed, Prometheus was severely punished. Zeus chained the rebellious god to a rock, where each day a vulture ate his eternally regenerating liver until, many centuries later, Heracles freed him. In other words, our drive to mastery will ultimately cost us dearly, as it did Prometheus.

Following the lead of Kass but focusing on sports, applied ethicist Mike McNamee challenges "the hubris of modern biomedical science" and its "vertical ambition in transforming our very nature as humans" (McNamee 2007, 182-3). He asks us to reflect on the concept of victory. Once you have become an elite athlete with considerably higher capacities due to technological enhancements, what would remain of the meaning of winning? McNamee draws on the Odyssey to explore this issue. After his ship is wrecked in a storm, Odysseus is rescued by the divine beauty Kalypso, who offers him "a life of endless pleasure, without suffering or fatigue". "This life", says McNamee,

"of course stands in marked contrast to the vulnerabilities, struggles and eventual death that define the shape of human life" (McNamee 2013, 194). However, Odysseus rejects the offer and chooses instead to return to Ithaca, where Penelope, his wife, is waiting for him. He chooses to continue his mortal life, accepting both its dangers and its agony.

McNamee quotes Martha Nussbaum, who explores Odysseus' choice in her essay, "Transcending Humanity": "We don't quite know what it would be for this hero, known for his courage, craft, resourcefulness, and loyal love to enter into a life in which courage would atrophy, in which cunning and resourcefulness would have little point, since the risks with which they grapple would be removed" (Nussbaum 1990, 366). Even love would be different. Nussbaum wonders "where, and who, in such a life, would our hero actually be?"

DO WE WISH FOR HIM A GOOD RESULT THAT INVOLVES A TRANSFORMATION SO TOTAL THAT HE MIGHT NOT REMAIN HIMSELF?"

(ibid). McNamee draws an analogy to a robot that would be a

perfect firefighter. While operating very efficiently and effectively, such a robot would not be considered heroic because, as a machine, it would risk nothing and would have nothing to lose. "What is missing are the possibilities of choice, fear, an understanding of life that might be saved, or risked, and so on" (McNamee 2013, 195).

Our disposition toward technologically transformed athletes performing excellently would surely be similar: "Would any kind of a proverbial vocabulary, such as we employ of virtuous and vicious, be apt? The nature and limits of human excellence shape the kinds of admiration we have for those who aim at perfection, humanly conceived. The framework gives meaning to the action and its evaluation" (ibid.).

McNamee chooses the myth of Odysseus to show that a heavenly existence of endless pleasure would deprive life of its meaning. Virtue and victory derive their value and significance from the very fact that humans have limits. Thus, the only athlete whom we can genuinely marvel at is the one who, despite these limitations, nevertheless dares to undertake the risky odyssey toward human excellence.

LEARNING FROM MYTHOLOGY ?

It might be wondered why both sides of the debate on human enhancement draw so heavily on ancient Greek mythological figures. At first glance, it might be thought that these myths are simply convenient and apt illustrations of the positions taken by different debaters that make their views more vivid and accessible without having much to do with the content of these views. We agree that ancient myths can be clarifying illustrations of elusive philosophical concepts. However, their sheer ubiquity suggests that they are more than that. We suspect that it is no accident that participants in the enhancement debate constantly return to these particular myths (rather than to other narratives).

THERE IS CONTINUITY BETWEEN THESE MYTHS AND THE VARIETY OF VIEWS ON HUMAN ENHANCEMENT

These views are colored by the same complex attitudes that these myths have inspired over the course of their history.

INVOKING PROMETHEUS :

When proponents of enhancement invoke Prometheus:

« THEY EXPRESS ADMIRATION FOR HIS BRAVERY AND THRILL AT TRANSCENDING THE BOUNDARIES THAT THIS MYTH HAS ALWAYS EVOKED. IN ADDITION. »

INVOKING ICARUS :

When enhancement critics invoke Icarus:

« THEY GIVE VOICE TO THE AWARENESS OF DANGER AND HUMILITY IN THE FACE OF HUMAN LIMITATIONS THAT THIS MYTH HAS CONVEYED SINCE ANTIQUITY. »

In this sense, contemporary thinking on human enhancement is part of the living and evolving legacy of these myths.

What, if anything, can we learn from recognizing that mythology not only illustrates different contemporary views on enhancement but also helps shape these views? The pessimistic conclusion is that we might as well abandon any attempt to solve the perplexing socio-ethical questions that the possibilities of human enhancement raise. If the ancient Greeks grappled with these questions and if humanity still has not answered them despite its attempts

over the last two and a half millennia, can we genuinely hope to be able to answer them today? Better, it seems, to spend our time and energy on more worthwhile pursuits that might have a direct impact on the problems that humans currently face.

Although such pessimism might not be altogether unwarranted, we want to hint at a different and more productive conclusion. There is an important sense in which confronting the history of our thoughts and passions renders them more comprehensible. Indeed, this insight animates a range of different intellectual traditions: from Marxism through psychoanalysis to hermeneutics. Explicitly or implicitly, these traditions all assume that reflecting on the origin and evolution of present ideas and attitudes – on how these ideas and attitudes came about – allows us to understand them better. In this spirit, we suggest that taking their mythological references seriously might make participants in the human enhancement debate more humble regarding their own views. There is no doubt some truth to the charge that enhancement critics remain in the grip of irrational fears, just as there is some truth in the charge that

enhancement enthusiasts are overly excited about current prospects for human enhancement. To the extent that both fear and excitement can cloud reasoned judgment, they must sometimes be tempered. Tracking the history of such reactions is useful in this regard because it provides a critical perspective on them.

Enhancement critics have much to benefit from realizing that concerns about new practices and technologies have sometimes proven unwarranted. Similarly, enhancement proponents have much to benefit from realizing that enthusiasm for scientific and technological progress has sometimes proven to have been overblown. Such realizations might make each side of the debate more cautious with respect to their own convictions and, ideally, more likely to recognize that they share more than they might think with the other side (Parens 2005). Although it largely reiterates ancient and unresolved socio-ethical quandaries, there is yet hope for progress in the debate on human enhancement.

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