Abstract: A few thinkers have given voice to a range of deeply felt but largely unarticulated concerns that may explain much of the resistance and opposition to transhumanist goals. This essay examines those concerns and how they interrelate, primarily looking at the issues as presented by Michael Sandel and Leon Kass. These concerns revolve around a fear that human nature and personal identity will become unglued, losing all shape and meaning. Many of these concerns come together in Sandel's discussion of hyperagency. The idea of hyperagency appears to be a focal point both for people's attraction to and repulsion from transhumanism.

Keywords: Sandel, Michael J.; Kass, Leon; hyperagency; transhumanism; morphological freedom.

Transhumanism, as a still-emerging philosophy, has been attracting a growing amount of discussion, both pro and con. A few thinkers have given voice to a range of deeply felt but largely unarticulated concerns that may explain much of the resistance and opposition to transhumanist goals. Two major contributions to this debate are by Michael Sandel, "The Case Against Perfection,"\(^1\) and Beyond Therapy\(^2\) by the President's Council on Bioethics under chairmanship of Leon Kass. To understand those concerns we must first have a clear view of transhumanism. Practically all the varied flavors of this philosophy can probably accept the following definition:

Transhumanism is both a reason-based philosophy and a cultural movement that affirms the possibility and desirability of fundamentally improving the human condition by means of science and technology. Transhumanists seek the continuation and acceleration of the evolution of intelligent life beyond its currently human form and human limitations by means of science and technology, guided by life-promoting principles and values.\(^3\)

One way to grasp the core content of this philosophy is to think of transhumanism both as "trans-humanism"

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and "transhuman-ism." The first emphasizes the philosophy's roots in Enlightenment humanism. Here we find the emphasis on progress (its possibility and desirability, not its inevitability), on taking personal charge of creating better futures rather than hoping or praying for them to be brought about by supernatural forces, and on reason, technology, scientific method, and human creativity rather than faith. The early religious humanist, Pico della Mirandola, foreshadowed transhumanism in his Oration on the Dignity of Man when he wrote, from the perspective of the creator:

Neither a fixed abode nor a form that is thine alone nor any function peculiar to thyself have we given thee, Adam, to the end that according to thy longing and according to thy judgment thou mayest have and possess what abode, what form, and what functions thou thyself shalt desire. The nature of all other beings is limited and constrained within the bounds of laws prescribed by Us. Thou, constrained by no limits, in accordance with thine own free will, in whose hand We have placed thee, shalt ordain for thyself the limits of thy nature.4

"Trans-human" emphasizes the way transhumanism goes well beyond humanism in both means and ends. Humanism tends to rely exclusively on educational and cultural refinement to improve human nature whereas transhumanists want to apply technology to overcome limits imposed by our biological and genetic heritage. Transhumanists regard human nature not as an end in itself, not as perfect, and not as having any claim on our allegiance. Rather, it is just one point along an evolutionary pathway and we can learn to reshape our own nature in ways we deem desirable and valuable. By thoughtfully, carefully, and yet boldly applying technology to ourselves, we can become something no longer accurately described as human—we can become posthuman.

To some ears, "posthuman" may sound threatening—as if it implies the replacement or usurpation of the human race by a new species. However, as the term "transhumanism" perhaps implies more clearly, it really refers to the transformation of *homo sapiens*, step by step, into a species sufficiently different from the genetically-defined human that it counts as a new species. Becoming posthuman does mean necessarily throwing out everything that makes us human. Much of that we will want to preserve and build upon. Becoming posthuman does mean consciously and deliberately deciding for ourselves which aspects of humanity to keep and which to overcome.

When we set aside the defensive apologies that rationalize the human condition as ideal, we can see that it includes questionable or obviously undesirable elements. As posthumans who have used self-applied technology to transcend genetic and biological limitations, we would no longer suffer from disease, aging and inevitable death. We can expect to have far greater physical capability and freedom of form—often referred to as "morphological freedom."5 Becoming posthuman also means developing much greater cognitive capabilities, and more refined emotions (more joy, less anger, or whatever changes each individual prefers). The changed internal condition of posthumans will be accompanied by an expansion in the range of possible future environments for posthuman life, including space colonization and the creation of rich virtual worlds.

### Limitationism

All forms of transhumanist thinking have been characterized by a determination to overcome natural and traditional limitations on the human condition. This is especially clear in the first fully developed transhumanist philosophy as defined by the *Principles of Extropy,*6 the first version of which was published in 1990. The concept of extropy captured and conveyed the core values and goals of transhumanism. Intended as a metaphor rather than as a technical term inverting entropy, extropy was defined as "the extent of a living or organizational system's intelligence, functional order, vitality, and capacity and drive for improvement." The various versions of the *Principles* included core values such as perpetual progress and self-transformation, finally expressed in the commitment to perpetual

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progress as follows:

Pursuing extropy means seeking continual improvement in ourselves, our cultures, and our environments. Perpetual progress involves improving ourselves physically, intellectually, and psychologically. It means valuing the perpetual pursuit of knowledge and understanding. Perpetual progress calls for us to question traditional assertions that we should leave human nature fundamentally unchanged in order to conform to "God's will" or to what is considered "natural." Achieving deep and sustained progress leads us to consider fundamental alterations in human nature. This pursuit of betterment stimulates questioning of the traditional, biological, genetic, and intellectual constraints on our progress and possibility. [PE np]

And concluded, in the declarative challenge of a manifesto:

No mysteries are sacrosanct, no limits unquestionable; the unknown will yield to the ingenious mind. The practice of progress challenges us to understand the universe, not to cower before mystery. It invites us to learn and grow and enjoy our lives ever more. [PE np]

The same tone exists in the principle of Self-Transformation. For example: "We can shrug off the limits imposed by our natural heritage, applying the evolutionary gift of our rational, empirical intelligence as we strive to surpass the confines of our human limits" (PE np). It is precisely this call to challenge and overcome those aspects of human nature until now thought to be inevitable and irremediable that have stirred up opposition. This opposition comes in various forms but strikes common themes. Those commonalities allow us to pin the label "limitationism" on that opposition. Limitationism is therefore the general attitude that the fundamental limits that have been part of human nature—cognitive, somatic, sensory, emotional, mortal, etc.—are sacrosanct, or crucial to dignity, humility, or meaningfulness.

These concerns revolve around a fear that human nature and personal identity will become unglued, losing all shape and meaning—and that nothing comprehensible with replace them. Many of these concerns come together in Sandel's discussion of hyperagency and in his contrast of this "Promethean aspiration to remake nature, including human nature, to serve our purposes and satisfy our desires" (CAP 54) with his ideals of humility, solidarity, and responsibility, and the concepts of beholding, giftedness and "the given," authenticity, and identity. Hyperagency effectively conveys the transhumanist imperative to enable us to choose and transform every aspect of ourselves.

Sandel makes a contrast between molding and beholding, apparently expecting us to check only one of these two boxes. It appears that this sharp distinct—and his preference for beholding—is based on some religious belief in the creation of the world as it is and the sacred nature of that world. After all, if the world is no more than a natural outcome of a natural, unguided process, it is not sacrosanct. There is no offense involved in molding it. It should be obvious, however, that transhumanists can have a fondness also for beholding. Indeed, those of us with a reasonably comprehensive scientific understanding of the world frequently finding ourselves marveling at its structure and phenomena—whether the vastness of the universe, an eclipse, the self-organization of flocks of birds, or the interaction of forces on a subatomic level.

Closely related to Sandel's elevation of beholding is his emphasis on the notion of giftedness. Again, this concept in this context makes no sense unless we believe that there is a higher being who is bestowing the gifts. Sandel observes that

To acknowledge the giftedness of life is to recognize that our talents and powers are not wholly our own doing, despite the effort we expend to develop and to exercise them. It is also to recognize that not everything in the world is open to whatever use we may desire or devise. [CAP 54]

Two different ideas are packed into this quote. The first is ambiguous: It could simply means that none of us is entirely self-creating. No matter how much we may shape ourselves, we are also formed by genetic accident and environmental influences. But who would disagree with that? He might also mean that a divine power creates and limits us. Only on that interpretation would transhumanists reject Sandel’s view. The second idea is independent of the first. Again, the idea is left hazy. Does he mean "not open to use" in the sense that we are unable to use it? Or that it would be somehow improper to use it? If the first, then that remains to be seen. The transhumanist imperative is to explore how far we can move in that direction. If the latter, then such an injunction is again meaningless in the absence of a creator and law-giver. Furthermore, even if a divine law-giver were to exist, we would have to ask what gives those laws any legitimate authority over us. Are the laws good simply because a more powerful being says so?
In discussing and critiquing hyperagency and enhancement, Sandel confuses matters in two other ways. First, he makes heavy use of the terms "perfect" and "perfection." Transhumanists instead use terms such as "enhance" and "improve" and "augment." There is a good reason for this. For one thing, when we say we want to perfect something (a skill or an outcome), we might mean that we want to improve it and keep improving it over time. That sense of the term is compatible with the transhumanist emphasis on self-transformation and perpetual progress. But we might also be using it in a Platonic sense, where we imagine there really is a state of perfection to be reached. Outside the realms of pure mathematics and logic, it's not clear that the concept of perfect or perfection makes sense. That concept is certainly not one meant by transhumanists. The goals and means of enhancement are far too variable among individuals and groups, and will almost certainly change over time. There is no single goal toward which all enhancement is directed.

Second, Sandel devotes much of his discussion of enhancement to ways to enhance children. For instance, the problem is not that parents usurp the autonomy of a child they design. The problem lies in the hubris of the designing parents, in their drive to master the mystery of birth. Even if this disposition did not make parents tyrants to their children, it would disfigure the relation between parent and child, and deprive the parent of the humility and enlarged human sympathies that an openness to the unbidden can cultivate. [CAP 57]

This evokes the familiar narrative of the controlling parent forcing the unwilling child to take piano lessons in order to conform to the parent's concept of a worthy offspring.

I will not argue that such a controlling form of molding of another person has serious problems. But parents can enhance their children in numerous ways that are not in the least controlling, but instead widen the child's range of freedoms and capabilities. Those enhancements might include ensuring the absence of a genetic predisposition to depression, anxiety, rage, schizophrenia and other serious cognitive-emotional disorders; ensuring a strong immune system, sharp senses, and the neurological basis for an intellect that can excel in a wide variety of ways—as the offspring shall choose. Sandel notes that "medical intervention to cure or prevent illness or restore the injured to health does not desecrate nature but honors it" but somehow misses the fact that exactly the same can be said of enhancements. Take children out of the picture and focus on self-directed enhancement—as emphasized in the transhumanist idea of morphological freedom—and Sandel's main basis for objection dissolves.

Even without coercion of any kind, Sandel still believes that enhancement (in the form of eugenics and genetic engineering) remain deeply problematic in that they "represent the one-sided triumph of willfulness over giftedness, of dominion over reverence, of molding over beholding" (CAP 60). Again, the basis for his objection is religious: "To believe that our talents and powers are wholly our own doing is to misunderstand our place in creation, to confuse our role with God's" (CAP 60). Those of us who see no evidence for a God, or at least one who insists on controlling our fate, will hardly be swayed.

Reasons other than religious exist, says Sandel, to care about giftedness. (How we can be gifted without a gift-giver is left as a mystery.) He worries that if the myth of the self-made man come true, "it would be difficult to view our talents as gifts for which we are indebted, rather than as achievements for which we are responsible. This would transform three key features of our moral landscape: humility, responsibility, and solidarity" (CAP 60). Of course, the transformation of key features of our moral landscape is not necessarily something to rail against. Not long ago, it was considered perfectly acceptable and normal to own slaves, to beat children, and for men to own women. Changing those beliefs, expectations, and practices certainly upset many people and pushed outside their comfort zone. But most of us regard those changes as desirable.

When it comes to responsibility, Sandel worries not about the erosion of responsibility, but an explosion in responsibility.

As humility gives way, responsibility expands to daunting proportions. We attribute less to chance and more to choice…. One of the blessings of seeing ourselves as creatures of nature, God, or fortune is that we are not wholly responsible for the way we are. [CAP 60]

In other words, enhancement and the expanded range of choice that comes with it is a lot of trouble. But progress and a better world can come about only by going to trouble, by taking on responsibility. Similarly, the humility espoused by Sandel can simply be a rationalization of fear or laziness in improving one's condition.
The radical extension of choice into previously immutable aspects of the human condition also, in Sandel’s mind, threatens solidarity. This concern is shared by Leon Kass in his book, Beyond Therapy. In his view, the more aware we are of the unchosen and fortuitous nature of our situation, the more we will tend to share it with others. The meritocracy, even more convinced of being self-made and responsible for their success, would become less forgiving and colder toward those doing less well. It is possible that there is something to this point. Sharing misfortune and limitation does sometimes bring solidarity, such as when a society must share privation in wartime against a common enemy. However, these episodes of solidarity are always short-lived. If the privation continues for too long—as in Soviet Russia—then people turn on each other with heightened viciousness.

We should also note that we have no experience with the kinds of changes transhumanists are bringing to our attention. Historical experiences may not be a reliable guide. The outcome of widespread enhancement technologies could be quite different. I believe that, currently, we typically attribute too much responsibility and self-control to individual choice. A better understanding of the underlying causes of our common and individual constitutions should only help us form a more accurate sense of responsibility. I would add that the enhancements that concern Sandel are likely to be widely available, at least after an initial period. The time between the first appearance of a new technology and its widespread availability has generally been shrinking.

Sandel and Kass agree on several points in their respective critiques of enhancement. Kass refers to vague conceptions of dignity and authenticity to make similar points. Interestingly, though, Kass talks mostly about a narrowing and flattening of human qualities. This echoes older critiques that claim the application of technology to humans will mechanize them, turning them into programmed objects. Despite their areas of agreement, their perspectives here are radically opposed. Sandel's worries about hyperagency are the very opposite of Kass' the narrowing and flattening of human qualities.

In the end, Sandel's worries about the removal of limits in achieving the hyperagency of transhumanism calls to mind Nietzsche's dramatic picture of life after the death of God: 7

But how did we do this? How could we drink up the sea? Who gave us the sponge to wipe away the entire horizon? What were we doing when we unchained this earth from its sun? Whither is it moving now? Whither are we moving? Away from all suns? Are we not plunging continually? Backward, sideward, forward, in all directions? Is there still any up or down left? Are we not straying as through an infinite nothing? Do we not feel the breath of empty space?

And yet, the many millions of us who have let go of belief in a divine being, or who never had such a belief, with few exceptions manage to keep our balance. Rather, we feel freed from arbitrary or outdated rules and have formed more reality-based guidelines. We impose our own limits, not those pressed on us based on a mythical and mystical authority. Limits are not inherently bad according to transhumanists. It is unchosen and imposed limits that are disliked. Imposing specific limits on oneself for particular purposes is valuable, such as when we deliberately focus attention on one task or object to the exclusion of others. As we develop the capability to make choices about previously immutable aspects of our bodily, cognitive, and emotional functioning, we will indeed have to take greater responsibility and push through temporary discomfort. This author envisions that the reward will be more conscious creatures who have taken themselves further out of the blind process of natural selection to create more mature individuals and communities.