Humanity's End:
Why We Should Reject Radical Human Enhancement

by Nicholas Agar

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In *Humanity's End*, Nicholas Agar responds to serious people making serious proposals about how human beings can and ought to develop self-enhancing technologies that will exponentially increase their intelligence and indefinitely extend their lives. According to Agar's chosen interlocutors, Ray Kurzwell, Aubrey de Grey, Nick Bostrom, and James Hughes, such forms of radical enhancement could be available to us in a mere twenty or thirty years. The technologies and therapies that will make these enhancements possible will alter the lives of the human beings that make use of them so radically that, according to some, those beings will no longer be human. They will be nonhuman, post-human, and perhaps superhuman.

As the title of his book suggests, Agar offers counterarguments to these proponents of radical enhancement in favor of forestalling humanity's end. He does not focus on questioning the possibility of the kinds of radical enhancement being proposed. He attempts no rebuttal of Kurzwell's law of accelerating returns, dictating that technology is bound for continual exponential advancement, or Kurzwell's notion of the singularity, "A future period during which the pace of technological change will be so rapid, its impact so deep, that human life will be irreversibly transformed" (7). In fact, though skeptical about Kurzwell's proposed timetable, Agar thinks that the technological change he envisions could go beyond irreversibly changing human life. He thinks it could change humans into post-humans. Neither does Agar question the feasibility of de Grey's "strategies for engineered negligible senescence" that promise to end human aging once "longevity escape velocity" is achieved and anti-aging therapies begin to add years to a person's life span at a rate that outpaces aging itself (84). Agar's purpose is not to resolve theoretical questions about whether, to what extent, or how quickly such radical enhancements might be achieved. He is interested, rather, in the ethical question: Given that we could radically enhance ourselves, should we?

Agar goes about answering that question by responding, one by one, to each of his four conversation partners. After opening chapters explaining radical enhancement and its prospects for producing a post-human species, Agar goes on to introduce and respond to the proposals of Kurzwell and de Grey, whom he respectively dubs the technologist and the therapist. He then applies a similar treatment to Bostrom, the philosopher, who defends the morality of radical enhancement, and Hughes, the sociologist, who forecasts the peaceable coexistence of humans and post-humans in transhuman democratic societies. The book ends with Agar's own "species-relativist conclusion about radical enhancement" (179).

Agar, as the title of his book states, advocates the rejection of radical enhancement. In this way, he contradicts the would-be radical enhancers to whom he responds. Yet though he rejects their conclusions, Agar accepts, or at least leaves unchallenged, many of their premises and presuppositions. His argument against Kurzwell's proposal does not reject the latter's "strong AI" conviction "that it may someday be possible to build a computer that is capable of genuine thought" (58). He

merely contends that the proposition " 'no computer can think' has a positive [non-zero] probability of being true" (63). Like de Gray, he measures the worth of human lives by the sum total of valuable experiences (110). He seems to grant Bostrom's claims about the objective superiority, not only of post-human intelligence, but of post-human values as well (142–145, 185–186). He calls Hughes's notion of democratic transhumanism, which excludes unborn human children from the ranks of the morally considerable while including chimpanzees, an attractive moral ideal (157).

Agar's many points of agreement with the proponents of radical enhancement to whom he responds may make him an effective critic. Presupposing like worldviews and operating within common thought traditions, Agar and his chosen interlocutors are able to debate the desirability of radical enhancement proposals from common starting points and with mutually plausible argumentation. This may make Agar a good conversation partner and, perhaps, an effective critic from the perspective of those whose ideas he criticizes and those who concur with such ideas. I, however, do not concur and neither, I venture to presume, do the great majority of this journal's readers.

So, while I agree with Agar's conclusion—the rejection of radical enhancement—I do not find his critique of radical enhancement proposals especially effective. Instead, I find it woefully shallow. Agar accepts, affirms, or at least grants for the sake of argument fundamental presuppositions about God, the human person, and human values that are not only widely controverted but, I am convinced, demonstrably false. To Agar, the nonexistence of God is a practical certainty that need not be considered. His anthropology is soundly biological, and he values biologically conditioned human experiences, such as being in love and participating in competitive athletics (186–196). However, he thinks an individual self-conscious subject could transition between species, such that a human being might be genetically altered to become a Neanderthal or a radically enhanced post-human while retaining the same self-conscious identity (23–25). Moreover, as I have alluded to, Agar endorses a transhumanist definition of personhood that includes certain non-human animals while excluding humans who lack self-awareness. Finally, Agar's ethical assessments of what is good and desirable for human being to do seem to combine consequentialism, relativism, and liberal notions of justice and personal autonomy.

Agar's practical atheism is nowhere stated and everywhere presupposed. It is most clearly evident in his application of Blaise Pascal's famous wager to the debate between Kurzwell and philosopher John Searle on whether computers could be capable of conscious thought (59–70). According to Agar's interpretation of Pascal's Wager, "Only those who are justifiably certain of God's nonexistence" should bet against it (60).[1] The absence in Agar's book of any consideration of God's possible existence or relevance to the present or future lives of human beings leaves the reader to conclude that Agar believes himself to possess such justifiable certainty. His only other nod to God occurs in a hypothetical thought experiment. In order to highlight the difference between immortality and the indefinite life span of one who is, according to de Gray's terminology, negligibly senescent, Agar suggests the following: "Suppose that an omniscient, omnipotent being were to offer you immortality." Then, he warns, "you should think very carefully before you accept." The reason? You might "succumb to an incrementally and inexorably increasing boredom … [and] your infinite life span will accrue more suffering than the most miserable finite life span" (113). Agar's hypothetical omniscient, omnipotent being is a suspect character. This god might turn out to be a sadistic trickster or else not so omniscient after all—failing to understand the perils of immortality as keenly as Agar does. He never considers the possibility that even a hypothetical god might be benevolent or know how to secure a blessed immortality for human beings better than they themselves do.

In this book, Agar defends humanity against those who would radically enhance it. He wants to forestall humanity's end rather than precipitate it—not only because

he rejects the radical enhancement proposals he considers, but because he regards humanity as something worth celebrating (179). The humanity that Agar celebrates is defined biologically. He says, "I define humans as members of the biological species *Homo sapiens*. A biological species is a group of populations whose members are capable of interbreeding successfully and are reproductively isolated from other groups" (19). Agar thinks that common membership in this species forms the basis for meaningful relationships that would be threatened by the radical intellectual enhancement of one or both parties. He also thinks the physical limitations of human beings ground human interest in athletic achievements that would be undermined by radical enhancements to human bodies. Furthermore, Agar opines that access to radical enhancement on the part of the wealthy and privileged in human society would lead to their further alienation from and injustice to humans who are less privileged. In all these ways, I think Agar is correct.

For Agar, however, being a human is quite different from being a person or having a personal identity. Agar claims to absent himself from the philosophical debate about the definition of human nature, but that does not stop him from suggesting that Aristotle's classical definition of the human being as rational animal is scientifically unjustified and philosophically unsatisfactory, or from endorsing a transhumanist definition of personhood. For Aristotle and the classical tradition represented by figures such as Boethius and St. Thomas Aquinas, the human being was the only known rational animal, and being a person simple meant being rational. Prescinding from immaterial existence, such as angels or divine persons, humanity and personhood are, to this way of thinking, coterminous. To be human means being a person. Being a person means being an individual subject of a rational nature (Boethius's definition), and, among material beings, the only known rational nature is human nature.

Agar and the would-be radical enhancers he critiques do not espouse this classical anthropology. Even supposing they did, they might well ask, "Why couldn't an individual subject who is now human become, through radical enhancements, a subject of a new superhuman rational nature?" For at least some of Agar's opponents, the answer would be that this person could—and should—become superhuman. For Agar, the answer would be, "That person could become superhuman but should not." He would justify this answer according to what he calls species-relativism. Agar describes species-relativism as a view according to which "certain experiences and ways of existing properly valued by members of one species may lack value for members of another species" (12). Agar does not claim that human beings and human values are superior to the post-human beings and post-human values that might result from radical enhancements. On the contrary, he acknowledges that, as a consequence of radical enhancements, post-human intelligence would be greater than and athletic abilities superior to their human counterparts. Agar even suggests that post-human values would be greater. He hypothesizes that, after "a ten-fold increase in intelligence," a formerly unenhanced human who cared "about the consequences of global warming … [might] have a dozen or so more cerebral concerns" that would seem more important. To this post-human, that former concern about global warming "is unlikely to occupy the same place in his moral consciousness as it did prior to the radical enhancement" (186).[2] For Agar, however, the question of whether we should radically enhance ourselves is not answered by considering how our minds, bodies, or values might be better than they were before. The question is answered by considering how the valuable experiences we have as humans compare to the valuable experiences we would be likely to have if we chose to radically enhance ourselves. Judging that "radical enhancement alienates us from experiences that give meaning to our lives," Agar concludes in accordance with his book's title (179).

According to Agar's species-relativism, humans should choose to remain humans because they happen to be humans and so have human experiences and human values. For Agar, self-aware persons exist among a variety of biological species with a variety

of physical attributes, across a continuum of intellectual capacities, and with values relative to their own species and its characteristic abilities. Human persons might be able to radically enhance themselves to become members of a different species and ascend to higher levels of bodily ability, intellectual capacity, and moral consciousness. Agar says they should not, not because they would not be better, but because they would not be human and would not retain the human experiences they value as humans. If he applied this rationale consistently, he would say the same thing about monkeys who had the ability to become human beings.

I think the truth is otherwise. I think we should want to be better and to attain the greatest possible perfection of our physical, intellectual, and moral capacities. I do not think radical enhancement proposals of the kind Agar considers would likely bring us closer to that perfection. Far from making us superhuman, I think they are much more likely to make us subhuman for many of the reasons that Agar identifies: the likelihood that radical enhancement would lead to the breakdown of loving relationships, social injustice, and exploitation of the poor. Radical enhancement might make us better at computation and improve our bodily health—things that are authentically good and rightly to be sought. If it also makes us uncaring of our neighbors, disloyal to our families, abusive to the needy, and independent of our God, then we are made worse, not better. Our path to perfection is not to be found in the radical enhancement considered in this book. It is not in making ourselves post-human. It is in God making us fully human. As St. Irenaeus said, "The glory of God is man fully alive."

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1. Presenting Pascal's wager authentically does not seem to be Agar's concern. In any case, his presentation is not wholly authentic. For example, Pascal claims that if one bets in favor of God's existence, one loses nothing. According to Agar, one loses "little—You waste time worshiping god(s) … [and lose] time to devote to more pleasurable or meaningful activities" (40).

2. In this example, the pre-enhancement human's moral consciousness of the consequences of global warming is presumably based on a human perception of the reality of global warming. It would seem to follow that the post-human's superior intellectual perception would mean the more cerebral concerns that take precedence in his moral consciousness would be superior concerns based on more important realities.

Beyond Humanity? The Ethics of Biomedical Enhancement

by Allen Buchanan

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Allen Buchanan's wide-ranging book argues strongly in favor of what he calls biomedical enhancement. His position is influenced by his expertise in international law coupled with his considerable experience in bioethics. Significantly, the first edition of *Beyond Humanity* was published simultaneously with *Better than Human: The Promise and Perils of Enhancing Ourselves* in 2011. The first is presented as a scholarly work, whereas the second is more popular and explicit in its presumptions and conclusions. *Better than Human* does not ask a question; it manifests what is only implicit in *Beyond Humanity*.

The preface to *Beyond Humanity* reveals one of Buchanan's basic premises: "Human