

A Truer Humanism

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Prof. David Heyd's response to my essay is serious and substantive. It thus deserves a serious and substantive reply, despite the fact that Prof. Heyd is rather careless in representing my stated views and more than careless in attributing to me opinions I neither expressed nor hold. These errors to the side, there is one large issue between us, the central theme of my essay and the one that prompted him to write: how to understand our humanity, especially in an age of science and scientism. Before turning to this question, I must briefly correct a number of errors, lest silence be taken for acquiescence.

My AZURE article was the text of a thirty-minute public lecture, in which I compressed materials and arguments more fully expressed elsewhere.¹ Ambitious in scope, it necessarily dealt but lightly with several large themes, offering in outline an argument begging for more expansive treatment. Still, that argument as given was orderly and tight, and I frankly had to reread the essay, so little did I recognize my thought in Prof. Heyd's (mis-)characterization of it. My essay was, quite explicitly, *not* about novel biotechnologies or the ethical issues they raise. Neither was it an attack on science or scientists, nor did I even hint at a call to ban *any* scientific research (I oppose such calls) or even a single technological practice. (Full disclosure: I have elsewhere called for one—and *only* one—legislative ban,

on the cloning of human beings; and I also favor retaining our current laws that prohibit euthanasia and physician-assisted suicide. In large cultural matters, I believe in education and persuasion, not in legislation and prohibition.)

My essay was, instead, devoted to a critique not of science but of “*scientism*,” a quasi-religious faith proclaimed by a growing array of bioprophets who insist that genetics, neuroscience, and evolutionary psychology can offer a complete, purely *scientific* account of human life (our moral preferences and religious beliefs included), and who explicitly seek to overturn traditional religious and moral teachings and even our self-understanding as creatures with freedom and dignity. I do not “dread” this point of view; I repudiate it as false. While clearly noting my esteem for the findings of these exciting new sciences, I argued that the knowledge they provide must always be partial and incomplete, owing to science’s conceptual limitations. No science of human life can do justice to its subject if it refuses even to inquire into the nature, character, and meaning of our “aliveness,” with its special inwardness, awareness, desires, purposiveness, attachments, and activities of thought, while nonetheless believing that it has “explained” these richnesses of soul by reducing them to the electrochemical events of the brain. I pointed out the moral poverty of scientistic thinking and its failure to speak to the deepest human questions: “What ought I do?” “What may I hope?” Against the shallow teachings of scientism, I pointed to corrective philosophical and biblical teachings about our humanity, constituting an enduring wisdom that neither threatens science nor is undermined by science’s discoveries, if they are rightly regarded.

No friend of scientism himself, Prof. Heyd underestimates—if he does not altogether deny—its rise and its challenges to human self-understanding. Perhaps because he associates with and pays more attention to philosophers rather than molecular biologists and neuroscientists, he chooses to ignore the concrete examples of scientistic thinking I cited in my article (and I could cite many others, including the writings of scientists Francis Crick, Richard Dawkins, Michael Gazzaniga, Ray Kurzweil, Jacques Monod,

Stephen Pinker, Lee Silver, Gregory Stock, James D. Watson, E.O. Wilson, and a wide range of so-called “transhumanists” and “immortalists”). Perhaps because he himself does not appear to share their materialist prejudices or their belief that man does not differ decisively from other animals, Prof. Heyd underestimates the intellectual and cultural challenge that this way of thinking poses for our contemporaries, especially for impressionable and illiberally educated students who have been taught to believe that science offers the whole truth about whatever phenomena it studies. Yet Prof. Heyd offers an equally “soulless” account of human life. Despite his lack of sympathy for reductionism, he appears to join the scientists in their refusal to countenance any notion of “soul” (or *anima* or *psyche*) as an explanatory principle in biology. By “soul” (as relevant for biology and psychology) I mean not some immaterial ghost in the animal machine, or some separable entity, infused by God, that leaves the body after death; I mean, rather, the soul as *the empowering organization* (or “vital form”) of the body’s materials, the integrated *capacities and activities* it makes possible, and the *meaningful “in-formation”* that it manifests in its active being and that it receives from and conveys to the outside world.

A notion of “soul” is needed in biology—and not just in human biology—not only to bridge the gap between our science of the objectified body or brain and our subjective experience (what things “feel” like to us). It is needed also for addressing and explaining the nature of vital activity itself. As I pointed out, “the eyeball and the brain are material objects, they take up space and can be held in the hand; but neither the capacities of sight and intellect nor the activities of seeing and thinking take up space or can be held. Although absolutely dependent on material conditions, they are, in their essence, *immaterial*: they are capacities and activities of soul—hence, they are not objects of knowledge for a materialist science.” All the fundamental features of life—“information,” “development,” “awareness,” “appetite,” “striving,” and “action”—are not truly explicable, not only in their being but also in our coming to know them in terms of the actions of genes or electrochemical brain events. We know them, as we know any

idea, only by acts of mind, receiving and grasping the *immaterial* units of intelligibility that, *mirabile dictu*, hitch a ride to audible sounds or visible symbols—like those you see when reading (that is, seeing *through* them) on this page. While our brains are surely involved in the processing of these sounds and symbols, the immaterial meanings are not mere by-products of material events, but, in many cases, their cause. How else to explain that a verbal insult can make the blood boil—if, and only if, its insulting meaning is understood? Even if you believe that the brain resembles a hard-wired computer, you must acknowledge that it is activated and ruled by the *meanings* of its software.

The human animal is constituted to be at once a source of its self-directed motion, beginning with metabolism and culminating in action; a source of awareness (sensation and intellection); and a source of appetite and aspiration (hunger and eros). What accounts for the unity of these vital and integrated powers of action, awareness, and appetite, and our capacity to (partially) direct them through knowledge and choice? On principle, our molecular genetics and neuroscience have no interest in this question. A more natural science, truer to life as lived, would not be so neglectful. Readers interested in how it might be pursued should have a look at my book *The Hungry Soul: Eating and the Perfecting of Our Nature*.

Prof. Heyd's main quarrel with me concerns human nature. He (erroneously) attributes to me a belief in a *fixed* human nature, based on what he takes to be my (allegedly Aristotelian) commitment to the eternity and immutability of species (I believe in man's evolution from non-man) or my (allegedly biblical) commitment to the infusion by God of a soul or essence into the human being at creation (this forms no part of my reading of Genesis). Relying on Pico della Mirandola, Prof. Heyd argues instead that man has no fixed nature, that he is a radically free being whose *sole* enduring characteristic is his ability to (re-)create himself through his own freedom. Prof. Heyd not only asserts this conception of our humanity; he

celebrates it. He believes that human dignity consists largely if not wholly in this capacity for making of ourselves whatever it is we please. There are two difficulties with his position, one concerning its truth, the other (and more important) concerning its goodness.

I do not deny that human beings, more than all other animals, have the capacity to change their surroundings and shape their way of life, and even, to some extent, to alter aspects of their bodily and psychic being. Man is by nature the animal that lives by art and culture and therefore *to some extent* “makes himself.” As Winston Churchill put it, “We shape our buildings, and afterwards our buildings shape us.”² But this does not mean that *all* of human nature is alterable, or that the *only* permanent trait of humanity is its capacity for self-creation. Such a capacity is, first of all, neither primary nor essential. Our ability to alter ourselves rests on certain more fundamental and essential powers of soul: powers of awareness and cognition to discern what can and should be altered; powers of practical reason and technical action, to give effect to what the mind chooses to try to alter; and powers of desire and aspiration, to energize the entire effort in the service of some perceived or imagined “good.” In a word, the power of “self-creation” is in fact but one expression of more fundamental powers of *reason, freedom, and appetite* or *desire* (what the Greeks called *eros*). Our supposedly ever-self-changing human nature depends on certain more permanent powers of the human soul, powers whose meaning is, to say the least, hardly exhausted by their contributions to altering our way of being in the world.

Second, human freedom of self-alteration is hardly unlimited or radical. There are limits to what we can make of ourselves, so long as we have bodies that are perishable, and so long as our choices for self-alteration are made with the necessarily incomplete knowledge and wisdom that ever attaches to merely mortal beings. Prof. Heyd, quoting Pico, seems to embrace the view that man in his essence is neither mortal nor immortal. Yet this power of self-alteration finds its home only in an animal and mortal body. Indeed, the erotic spur to alteration and “improvement” depends absolutely on our being embodied creatures of need and aspiration. Homer’s immortals, for

example, are not erotic or aspiring, and they have no incentive to achieve anything at all.

Third, Prof. Heyd, following Pico, speaks of “man’s control over his own development”—a control that he himself admits is limited—as enabling us to become free of the accidents of chance and necessity. But he works with a very limited understanding of “control.” True control requires not just powerful tools, but a knowledge of how to use them *well*. True control requires not just cleverness in the means, but wisdom about the ends—the kind of wisdom our putative masters of nature neither have nor seek. To borrow an image from a sage observer of the modern scene, we have retail sanity in our means but wholesale madness regarding our ends. This surely does not look to me like “control.”

This leads directly to the biggest difficulty with Prof. Heyd’s view, which emerges when we examine the *desirability* of human freedom and the powers of self-recreation. Even were we to grant to human beings as much self-transformative power as he (mistakenly) claims we have, Prof. Heyd offers no argument as to why we should stand up and cheer that fact. He denies that man has any pre-given ends or goals to guide his human self-recreation. How, then, will we know whether any alteration we propose for ourselves is, in fact, *progress*, rather than just “change”? Like all progressives, Prof. Heyd talks cheerfully about “improvements” and “perfections” in our nature that we can perhaps accomplish through enhancement biotechnologies. But how—and by what standard—are we able to judge the change to be an improvement? It is by now a commonplace that much of what we choose in life we choose under the veil of ignorance, that our choices have unintended and undesired consequences, and that, like Midas, we often get what we wished for, only to discover that it is far less than what we really wanted. How, according to Prof. Heyd’s standardless embrace of self-recreation, will we know whether we are humanizing ourselves or dehumanizing ourselves?

Prof. Heyd does not deny that the biological revolution brings with it certain ethical dilemmas, but he mentions only those favorite concerns of progressives—“social justice and equality,” “the distribution of resources,” and the issue of “futility.” He does not even acknowledge the possibility that we can willingly degrade ourselves, both in deed and in self-conception. If some choices can make us “better,” surely others can make us “worse”—however Prof. Heyd chooses to define these terms. Even on Prof. Heyd’s preferred principles, it cannot be true that *all* acts of self-fashioning are *ipso facto* humanizing and dignified. What of choices that might attack or undermine what he himself regards as the essence of our humanity: the power and desire for creativity itself? On Prof. Heyd’s own terms, would not a free choice to dampen the power of human freedom degrade our humanity? Is a free choice to live as a buffalo really a manifestation of human dignity and greatness, merely because it is freely chosen? Would not a desire that saps the desire for change be a degradation? Let me generalize the point: Is it wise to embrace perfectibility if one insists in advance that there is no such thing as perfection?

Let me illustrate Prof. Heyd’s naïveté in matters of “improving ourselves” through technology by looking at his concrete assertions regarding contraception and in-vitro fertilization—admittedly not the main subject of his critique or of my paper. He points out, correctly, that the primary intent of birth control pills is to assist couples in preventing unwanted pregnancies. But he ignores the effect of this separation of sex from its procreative possibility and its inner meaning on the attitudes toward sexuality and erotic desire in the entire population, including the unmarried and the uncoupled. Does he think that the pill has played no role in the transformation of our thoughts about intimacy, in which “making love” has become “having sex,” and where “having sex” is itself regarded as “no big deal,” much like scratching an itch? Does he think that the pill has played no role in the decline of sexual restraint or modesty, itself the condition of the transformation of animal lust into erotic longing for the one true love?

Likewise, Prof. Heyd correctly points out that in-vitro fertilization enables couples who suffer from infertility to become parents. But he ignores the meaning of placing the origins of human life in human hands, available for manipulation and selection. Before in-vitro fertilization, every child-to-be took up residence in its mother's womb unnoticed and unannounced, as the gift and mysterious stranger that each child truly is, a being who—*by its very being*—needs, merits, solicits, and receives our warmth, protection, and love. Now, in the age of reproductive technologies, a child comes increasingly to be seen as a project and product of our wills rather than as a gift of nature or nature's God, and his existence (or hers—we can, after all, today choose both the gender and the correct pronoun) is now precisely arranged to satisfy parental wishes for *their* self-fulfillment. Thanks to in-vitro fertilization, Americans have become comfortable storing 400,000 so-called spare embryos in freezers and regarding nascent human life as one more natural resource to be mined and exploited for use and profit. Thanks to in-vitro fertilization, biologists—who ought to appreciate, more than anyone, the meaning and mystery of developing human life—come now to look upon human embryos, in the words of a distinguished neuroscientist-ic friend of mine, as “no different from piles of lumber lying in the home-building lumber yard.”

I mention the examples of contraception and in-vitro fertilization, taken from Prof. Heyd's essay, not to condemn these practices, but merely to show how such welcome innovations have unintended and undesirable consequences, both in our practice and (especially) in our thinking. Only on the preposterous faith that whatever happens by human design is always for the good are we free from the difficult task of assessing—critically—the often bittersweet fruits of our technological and “self-fashioning” labors.

Not content to rest his case on Pico della Mirandola's hubristic seizing of the voice of God to proclaim his own radical view of human nature, Prof. Heyd concludes by offering, in the spirit of Pico, *his* equally radical interpretation of God's creation of man in "his own image" (Genesis 1). Midrash is, of course, a venerable sport, and no one needs a license to play. But Prof. Heyd's offerings are wildly implausible, to say the least, and ill-supported by the text, both near and far. After caricaturing other ways (none of them, however, mine) of interpreting the meaning of "creation in the image of God," he attempts to deduce the meaning of *tselem elohim* from the surrounding context—an eminently reasonable practice. But rather than consider what I have suggested that we learn about the divine from the *entire* first chapter of Genesis, he focuses only on the further *entailments* of man's god-like standing—"have dominion"; "be fruitful and multiply"—and asserts that it is these derivative entailments themselves that constitute our special *nature* as god-like. But read carefully, the verses suggest that it is because man's "nature" already shares something of the divine *capacities*—that is, man as created is *already* in God's image, or god-like—that it then makes sense for God to give him dominion over the other animals.

Prof. Heyd then compounds his error by his remarkable claim that it is in procreation that human beings most clearly resemble the divine, also making "something out of nothing." (I note in passing that the biblical text does not expressly say that God's creation was *ex nihilo*; this is a latter-day theological interpretation, and in my view hardly a necessary one.) But the divine mode of creation in Genesis 1 is entirely through *intelligible speech*, not through generative concourse: Creation is not generation. Indeed, one of the chief targets against which the Bible is silently polemicizing is the view that the cosmos has its origins in the sexual coupling of (two) gods, for example, Sky Father impregnating Earth Mother. Prof. Heyd also ignores a crucial textual fact that vitiates his entire thesis: The same injunction, to be fruitful and multiply—is it a command, or is it part of the blessing?—has

previously been offered to the creatures of the sea and the fowl of the air, beings that are in no way said to be god-like (image of God) (Genesis 1:22).

Ignoring the fish and the fowl, we may still ask: Why are only human beings (among all the land animals) exhorted to be fruitful and multiply? Perhaps it is because only human beings, capable of “rational choice,” will freely refrain from the natural (animal) work of procreation, preferring, selfishly, their own self-fulfillment to the self-sacrificing activity of making way for the next generation. When the injunction to be fruitful and multiply is repeated after the Flood—first to Noah and all the animals, but then, in the Noahide code, only to human beings³—it seems likely that a command to procreate is needed against the twin dangers of self-indulgence or despair, either of which would keep human beings from devoting themselves to future generations and the perpetuation of life.

Prof. Heyd is surely correct in noting that only with the creation of man does God declare the whole of creation to be “very good”—which is to say, “complete” or “perfect” (as in the “perfect” tense of verbs). But he does not notice that, alone among the creatures (except for heaven), man *himself* was *not* said to be good—an omission that must be related to man’s god-like status. Precisely because the human animal is created with the god-like powers of speech, reason, and freedom in doing and making—note, please, not the radical freedom of complete indeterminacy or the radical creative power of the divine—man is open, incomplete, a project unfinished. In this respect, the Bible freely acknowledges what Prof. Heyd and every sensible student of human nature (including Aristotle) know: Man is born incomplete and open, much more so than any other animal. And for the cosmic whole to be complete, there needs to be a creature like man whose openness includes the possibility of appreciating the creation and its creator, as well as the possibility of living a moral and spiritual life higher than that of the un-god-like beasts.

But man’s freedom, from the Bible’s point of view, is not simply to be celebrated. Human freedom and human reason are deeply problematic, as

the so-called second creation story seeks to instruct us. Man is the one animal that stands in need of a prohibition; man is the one animal that can go astray. Human freedom needs constraint and guidance if man's god-like potential is to be a force for good in the world, even for his own flourishing and well-being. In the biblical account, man's unbridled efforts at radical self-recreation—celebrated by Pico and Prof. Heyd—lead to disaster and human degradation: Consider both the city of Babel, built under the explicitly self-creating motto “Come, let us *make* us a (new) *name*,” and the technological, death-denying, but God-ignorant high civilization of Pharaoh's Egypt, where the image-of-God status of all humanity is, in practice, utterly denied. When God finally summons the Israelites to realize their god-like capacity to imitate the divine, it is not through some project of radical and Nietzschean self-creation, but through an effort at holiness—“Be holy, for I the Lord am holy”—a calling that (still) comprises Sabbath observance, reverence for one's mother and father, and the love of one's neighbor—*not* improving our memory and sexual potency through biotechnology or inhabiting virtual worlds that we design for ourselves with artificial intelligence.

Human nature, even allowing for man's evolutionary rise from non-human origins, has for millennia remained largely recognizable. The deepest powers of the human soul, explored by Homer and Plato, Shakespeare and the Bible, are still recognizable and operative: powers of learning and doing, love and friendship, song and story, healing and comforting, serving and worshipping. So, too, is the moral ambiguity of man, precisely because he is the animal with a difference. Biology and biotechnology have many gifts to offer human life, beginning with reducing illness and improving health, both somatic and psychic. But it will take a deeper wisdom, about both the limits of science and the meaning of human life, to keep us from losing our souls in the bargain.

A proper exploration of these questions requires more than short essays and quick rejoinders, and I am grateful to Prof. Heyd for challenging me to make my humanistic argument against scientism more compelling. But as we continue the difficult search for the right way to understand our

humanity and to keep life human, I suggest that we remember the encouraging advice of E.E. Cummings:

while you and i have lips and voices which
are for kissing and to sing with
who cares if some one-eyed son of a bitch
invents an instrument to measure Spring with?⁴

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Notes

1. Fuller versions may be found in my “Science, Religion, and the Human Future,” *Commentary* (April 2007), pp. 36-48; and “Permanent Tensions, Transcendent Prospects,” in Christopher DeMuth and Yuval Levin, eds., *Religion and the American Future* (Washington, D.C.: AEI Press, 2008), pp. 83-117. Readers are also referred to my books *Toward a More Natural Science: Biology and Human Affairs* (New York: Free Press, 1988); *The Hungry Soul: Eating and the Perfecting of Our Nature* (Chicago: University of Chicago, 1999); *Life, Liberty and the Defense of Dignity: The Challenge for Bioethics* (Washington, D.C.: AEI Press, 2004); and *The Beginning of Wisdom: Reading Genesis* (Chicago: University of Chicago, 2006).

2. Winston S. Churchill, from a speech in the House of Commons (meeting in the House of Lords), October 28, 1943, commenting on the need to restore accurately and fully the bomb-destroyed meeting chamber of the House of Commons.

3. Compare Genesis 8:17 with Genesis 9:1, 7.

4. E.E. Cummings, “voices to voices, lip to lip,” part 1, no. 33, in “Is 5” (1926), from *E.E. Cummings: Complete Poems 1904-1962* (New York: Liveright, 1994).