

CHAPTER FIVE

*The Real Meaning of Progress***PROLOGUE: FATHERS AND SONS**

I've never really given that much thought to birds. Eating them, of course. But beyond that they do what they do and we do what we do. Dad's another story. If it hadn't been "let's try this experiment to escape from Minos," I'm guessing that sooner or later he would have found some other excuse to strap on wings. That's just the way he is—which means never satisfied with the way he is.

It's an admirable enough trait. I guess. We're supposed to strive for excellence, at least as much as the gods allow. But excellence for Dad seems to be more doing something new than doing something well. I've seen the "wings" he's making, and I'll never strap them on sober, I can tell you that. It's not that I'm against new things—where would we be without Prometheus? But Dad thinks that the fact that he *can* do something is reason enough to do it. So let anybody offer him the chance to do something new and he is all over it. No thought for the consequences. Even now I'm pretty sure that he misses the irony of the fact that we would not need these stupid wings if he had not made that disgusting hollow cow. And this damn maze.

If we do get home after all this I'm going to have to talk with him. It's not that I think he is likely to change, but the gods know that somebody has to try and straighten him out before something really terrible happens. I'd hate to be the one to have to pick up the pieces.

WHEN APPEALING to common sense, transhumanists promise a better world in humanly comprehensible terms. However, their own assumptions lead them to abandon those promises in favor of willful change toward incomprehensible outcomes. They promise that science and technology will provide us with more of whatever it is we want more of at any given moment—and it is indeed hard to deny the attraction of that promise to people like us. The hitch is that people like us are not going to be around to enjoy it. Indeed, we are not even supposed to see our elimination as a cost at all, but as a great benefit. At least, for the transhumanists, this outcome is in some fashion necessary, and we are supposed to accept that technological might dictates right.

The transhumanists believe that their ideas represent *progress*—not just technological progress, but progress in the much larger sense of humankind fulfilling its ultimate destiny (a destiny of overcoming itself). Now, one might have thought that ethical guidance would be central to deciding whether a given discovery or invention actually served to advance the well-being of humanity in a way that would deserve labeling it progress rather than mere change, or worse. When Condorcet spoke of progress, for example, we could see his hopes for moral improvement. But shorn of any serious moral content, the measure of progress—if it can be said to exist at all—comes to be simply our amazement at, or dissatisfaction with, the present state of our discoveries and inventions, our awed anticipation of what might yet be achieved. Indeed, our terror about what might go wrong along the way becomes a kind of measure of progress.

The result of framing the question of progress in this way is obvious in popular discussions of the future of science and technology. First, start with a little history to produce an attitude of pride that we know so much more than we once did. Then look at what we know now, and stress the dangers of our remaining ignorance. Finally, anticipate future discoveries, combining hopes and fears for what might happen with a humbling sense that, if only we stick with it, those who follow us will know more than we do and be able to do far

more than we can. It would look like Winwood Reade's vision of mankind "ripening towards perfection," if it had the idea of perfection and Reade's tragic insight into the sacrifices involved.¹

Beyond that, "progress" becomes the sheer accumulation of information, a kind of hoarding mentality that is based on the belief that you never know what might come in handy someday. This helps to explain the widespread belief that any effort to restrain science or technology on the basis of ethics represents a threat to progress. After all, if progress is mere accumulation, then of course restraint *is* a threat. Yet to see this concern as simply expressing the self-interest of researchers and inventors is to do them an injustice. Haldane wrote that the prospect for the future "is only hopeful if mankind can adjust its morality to its powers,"² and many well-intentioned professionals probably would agree that it is the job of morality to adjust to scientific and technological change without appreciating how that amounts to saying that might makes right, since they are saying that the question of what we ought to do must always bow to what we have the power to do. Others probably believe that ethical restraint is a weak reed. That is why we frequently hear the argument that if "we" restrain ourselves with respect to some line of research or development, "they"—some other country, usually—will not, putting us at a disadvantage. Combine these two perspectives and you can begin to understand why so often in practice "ethics" of science and technology becomes a matter of filing the right paperwork, following professional codes, publishing in highly specialized journals, or scientists and engineers being willing to have meetings with people from otherwise safely segregated humanities departments to talk about the "ethics of . . ." this or that technology or line of research.³

In fact, however, the kneejerk suspicion of any effort to limit developments in science and technology represents something of a betrayal of the bargain that gives science its high place in the modern world. The enlightened acceptance and public encouragement of science and technology was built on the assumption that freedom for such research and development by those so inclined would serve

human well-being. The so-far largely successful results of that bargain have made the modern world what it is. Whether the bargain can be as successful if we lose sight of its terms is another matter, about which one is entitled to be quite skeptical.

Some may argue, in the manner of this book's epigraph from Albert Einstein, that today we are too sophisticated to think that there really is any rational answer at all to the question of what human well-being means; hence it could hardly help us think about how to limit our growing power over nature. Cultural and moral relativism, historicism, postmodernism, dogmatic materialism, and fashionable nihilism all create obstacles to taking the question of the human good seriously in our time, obstacles that were not created by advocates of the eclipse of man but that are consistent with their unwillingness to tackle moral questions. But if it is no betrayal of the bargain behind our scientific and technological prowess to at least *inquire* into the limits represented by the pursuit of human well-being, is it not all the more urgent to pose the question when the ultimate promises of transhumanism so blatantly reject that goal in the name of powerful enhancers, willful negation, and the mystification of the Singularity?

It is no new observation that the great increase in our powers coexists with a diminished capacity to think about them with any kind of moral realism.⁴ But slighting ethics does not genuinely serve the cause of science and technology, since they only matter in human terms if they truly serve our humanity. When progress is defined by dehumanization, it is obvious that this result is by no means guaranteed.

While transhumanism is still a fairly recent development, questions about the extent to which human ingenuity serves human beings well are hardly new—as witness the ancient Greek myth of Daedalus and Icarus. The details of the story are familiar: Daedalus is a great craftsman and engineer, the builder of the Labyrinth used to entrap the Minotaur on the island of Crete. Despite this service, Daedalus and his son Icarus are imprisoned on Crete by King Minos. Daedalus fashions birdlike wings of feathers and wax so he and his son can fly

to their escape. Ignoring his father's cautions, Icarus flies too close to the sun; his waxen wings melt and he plunges to his death in the sea.

The tale has drawn a fair amount of attention from artists over the centuries, including the three paintings we will discuss in the next section. The discussion that follows does not aim at offering a comprehensive account of the human good. Nor does it attempt to defend any particular limit on how we might use science and technology to preserve a future of *human* well-being. But it suggests how we might begin to think about such limits in the course of even modest reflections on the world we are making day to day with science and technology. The transhumanist arguments obscure what is present in front of us in this world; its imperfections and failures, for example, are swept away in a tide of technological determinism drawing us on to some distant horizon of imagined possibilities. That transhumanist farsightedness is then taken to be the best framework by which to give a trivializing and dismissive meaning to present-day things. The three paintings we now turn to provide illustrations of the range of moral responses to the eclipse of man, responses that can illuminate the reasons for rejecting transhumanist farsightedness and put us in a better position to take seriously the human purposes that science and technology promised to serve.⁵

WINGS OVER THE WORLD: THREE VISIONS

Our first image is "Daedalus and Icarus" by the French writer and painter Charles Paul Landon, who would eventually become better known as a writer on art than an artist. It is a marvelous illustration of the transhumanist hopes for the progress of inhumanity. The wings seem so natural—the thin fabric straps that bind them to the bodies of Daedalus and Icarus are easy to miss—that the pair look less like human beings wearing improvised wings than like winged beings. We see a moment of great promise, aptly in what seems the light of a new day, as Icarus steps into his first moment of flight, with the intent assistance—perhaps a slight push, perhaps just steadying hands—of



Charles Paul Landon, *Daedalus and Icarus*, 1799

Musée des Beaux-arts et de la Dentelle, Alençon

Picture: David Commenchal

his ingenious father. How Icarus feels is anyone's guess (does his face need to be quite so heavily shaded?), and Daedalus exhibits more concentration than amazement or even satisfaction at what he has achieved. Without clothing, with only a sky as background, and with only the vaguest of classical motifs in the pedestal on which they stand and perhaps in their hair, the picture presents this moment of accomplishment, the dawn of a new day, almost completely abstracted from time, place, personality, and circumstance (Icarus is even curiously androgynous). Thus, all the distinctions by which we normally

define human beings, except the one that highlights our ingenuity, are missing, and perhaps therefore arbitrary, and the painting becomes a pure tribute to the magical-seeming potential of human invention. Landon of course knows we know what happens next in the story. But from this starting point, it is almost impossible to believe that Icarus will fall—it seems at least as incomprehensible as the fall of some angel. It is as if Landon has in mind a new version of the story, in which father and son both survive.

Our second image, “The Death of Icarus” by the contemporary German painter Bernhard Heisig, is a powerful illustration of a certain kind of problematic critical response to the eclipse of man. In contrast to Landon’s painting, Heisig’s shows the end of the story, perhaps at sunset, with a screaming, terrified Icarus (apparently a self-portrait of Heisig⁶) the center of attention as he is crucified on the obvious artifice of his father’s inventiveness. The background echoes the famous painting of the Tower of Babel by Pieter Bruegel the Elder, while the prophetic, prominent pointing finger beneath Icarus’ left wing could be a rotated image of the hand of God from Michelangelo’s *The Creation of Adam*. All these Biblical visual references add up to a strong warning against overreaching technological ambition—a reminder of the human moral imperfection that conditions the way we use our amazing abilities, and a useful corrective to transhuman aspirations.

Yet Heisig, like Landon, simplifies the moral equation at work in the story. Despite or even because of its cultural quotations, the context in which he places the unfolding events is perhaps even more mysterious than Landon’s. The violence of this image, something for which Heisig’s work is generally known,⁷ is quite shocking, and puts the primary focus on the very direct line between Daedalus’ innovation and Icarus’ terror. “Here is where your creative pretensions will end up,” the painting seems to be saying: not just in failure but in horrifying disaster visited upon those closest to you. So in a curious way this deeply negative outlook depends on accepting the same kind of necessity that transhumanists like to claim drives their project. It



Bernhard Heisig, *Der Tod des Ikarus* (“The Death of Icarus”), 1979

© 2014 Artists Rights Society (ARS), New York / VG Bild-Kunst, Bonn

appears that for Heisig failure is the only option given that human beings are as they are. There is no point in speaking of progress at all if, from Adam on, we are fated to make the same overreaching kind of mistakes again and again, as the painting seems to suggest.

However, that perspective overwhelms the fact that this son is, after all, not bearing his cross because he is self-sacrificing or even fated to be sacrificed, but is a young man personally responsible for having flown, against the warnings of his father, too close to the sun. Of course, we can hardly expect that sons will always obey their fathers. But it is not clear whether Heisig sees how the moral significance of Daedalus’ work looks very different when we take account of the fact that his son’s character plays a role in the way things turn out.

Our last picture is “Landscape with the Fall of Icarus,” generally attributed to Pieter Bruegel the Elder. It is loosely adapted from Ovid’s telling of the story in *Metamorphoses*. Much has been and deserves to be said about this remarkable painting; let us therefore just stick with



Pieter Bruegel the Elder, *Landscape with the Fall of Icarus*, CA.1555
 Musees Royaux des Beaux-Arts de Belgique, Brussels, Belgium /
 Giraudon / The Bridgeman Art Library.

the obvious. Icarus plays a very small visual part in the story the painting tells; it depicts nearly the same moment of failure that Heisig presents, but in Bruegel we see it at a great and impersonal distance. A splash at the bottom right, some scattered feathers, and Icarus' tale is done; Bruegel has to play with the perspective a bit even to make him as visible as he is.

Of course, that minimization is its own kind of warning against overreaching: who wants to be remembered most for self-imposed failure? But beyond disobeying his father's instruction to follow a middle course between sea and sun, what is the source of Icarus' failure? Ovid's version presents Daedalus in a not-very-flattering light that casts some doubt on his desire "to work on unknown arts, to alter nature,"⁸ but it is not so clear that Bruegel agrees. The shepherd tending his flock in the middleground of the painting may come closest to living with nature unimproved (or at least, improved so long in

the past as to *appear* unimproved), but the fisherman certainly requires artifice to make his living. And our farmer's contour plowing may reveal him to be conservation-minded, but his plow, clothing, and literal reshaping of the earth together suggest no small degree of technological sophistication, a suggestion only amplified by the great argosies plying the waves and the alabaster city in the distance that is their apparent destination. In short, Icarus is placed on a continuum of very human enhancements of the given. Yet the tiny part that Icarus plays in the picture suggests a very different view from that presented by Landon and Heisig.

Bruegel's potential witnesses to the fall of Icarus are barely witnesses, if at all—they are certainly not dismayed, as in Heisig.⁹ In this respect Bruegel changes Ovid's story:

A fisherman, who with his pliant rod
 was angling there below, caught sight of them;
 and then a shepherd leaning on his staff
 and, too, a peasant leaning on his plow
 saw them and were dismayed: they thought that these
 must surely be some gods, sky-voyaging.¹⁰

Bruegel keeps the same characters, but not one of them seems astonished by what he has seen; indeed, it is not really clear they have seen anything at all. Because we know what is happening, and because we know Ovid, we can wonder about their *lack* of wonder. Is it mere peasant stolidity, or the general human obliviousness in the face of something new and (as some would say) important? Perhaps the fisherman sees Icarus. He might have thought, "*Was that really a man falling from the sky? No, it couldn't be.*" before returning, like the farmer, to doing his job. A flying man is outside of his expectations, and a god would hardly crash-land. Our shepherd is a more interesting case; he, not the plowman, raises his eyes, but not in the right direction to observe Icarus' fall. Perhaps he looks up because he hears Daedalus calling to his son? Or perhaps gazing up at the birds he day-

dreams of flying? But for him it is a passing fancy; not everyone has the genius and motive of Daedalus to turn such dreams to reality.

In any case, the most thought-provoking thing about Bruegel's painting of the story is that he does not have us (as Landon and Heisig do) asking much about Icarus, does not have us wondering about his wondrous or terrible flight. By placing Icarus in a relatively commonplace landscape, Bruegel instead makes us wonder about what Icarus means to these commonplace figures. He is an easily missed part of Bruegel's story, overwhelmed by Bruegel's seductive landscape of the everyday. In other words, in the world out of which they arise, innovations by the likes of Daedalus may hardly appear at all. Daedalus' great purpose, to find a clever way of freeing himself and his son, and Icarus' great failure, echoing his own father's quest to be free, do not intersect directly with what is important to the others in the painting.

On one hand, Bruegel's painting reminds us that the mundane is not given once and for all: there was a time when ships, cities, plows, fishing rods, and even herding sheep were new, the kinds of novelties that might have been, like Icarus' strange flight, either dangerous or hardly worthy of notice by sensible people.¹¹ On the other hand, Bruegel's painting suggests the limits to the power of change, for the world he depicts would have been just as recognizable to a viewer four centuries before his time as it is for us four centuries after. Even four millennia before Bruegel there was food to grow, there were animals to catch or tend, there were goods to trade, and there were disobedient children. Familiarity across such time scales may be less than the blink of an eye from some imagined cosmic perspective, but this lived human experience provides the continuities that ground and shape human life. It is because of this backdrop that we have the chance to judge innovation and change to be merely that, or in some real sense *progress*; there has to be a human condition in order to speak of progressive improvements to it. Furthermore, it is because of this backdrop that the importance of an innovation will become obvious only in retrospect; we cannot know in advance whether its significance, if any at all, comes from the manner in which it is integrated into the

old world, or overturns it. Bruegel stresses what Landon did not: that Daedalus' achievement was a dead end.

BETWEEN TWO VISIONS OF THE FUTURE

There is a further consequence of Bruegel contextualizing Daedalus' invention within the commonplace earthy, watery, and airy worlds of the farmer, fisherman, and shepherd. Can we not imagine them absorbed not merely in their work, but in those they are working to support? Their own aspirations for and worries about their families and communities would actually be their point of contact with the otherwise unfamiliar events whose final moments unfold before them. As they pursue their daily lives, Bruegel's figures look better dressed and better off than might have been true for their forebears; they might have similar hopes for their own descendants' material improvement without imagining them to be like gods. If they could meet Daedalus, then, we can well imagine they would be more inclined to marvel at his escape from a tyrant and commiserate with him about a disobedient son than focus on the details of his invention. Daedalus does not invent in a vacuum.

The existence of this shared world may be frustrating to those who today pride themselves on being at the scientific and technological cutting edge. But Bruegel reminds us that, practically by definition, the cutting edge is not where most people are; it does not even loom large in their lives. (Indeed, I know of no ancient story that suggests that Daedalus himself ever flew again; even for him flying itself was perhaps less an aspiration than escape.) Still, to those who think themselves in the vanguard, like today's transhumanists, the rest of us will appear as the fisherman, plowman, and shepherd—the ignorant and unobservant who through mere inertia ignore a fabulous future, or seek to keep it at bay. However, there is a certain falseness about this perspective, since in fact the vanguard does not really live in the future they imagine and must continue to rely on the existing world built by the mundane choices and motives that they would rather not

acknowledge. Ovid presents Daedalus as an escaping prisoner, Icarus as proud and foolish. Such human details decisively shape how innovations come to be and how they are used. The extraordinary ambitions of the transhumanists and our other latter-day followers of Daedalus will be mediated by the complexities of the ordinary.

Is there any force that can move the ordinary world inexorably toward the radical changes foreseen by the transhumanists? Mightn't the powerful forces of Malthusian scarcity and Darwinian competition push us in that direction? Bruegel, as a man of the sixteenth century, of course cannot be blamed for being unaware of such ideas. Does his unawareness undermine the human vision that he is seeking to present?

The first thing that needs to be noticed in order to answer this question is that the lesson of ongoing scarcity Malthus taught, and to some extent also the lesson of Darwinian competition, is shocking only after hopes for *ending* it, such as those articulated by Condorcet, come on the scene and become widely adopted. Without a vision of progress like Condorcet's, scarcity and competition would more or less simply be taken as definitive of the way things are. You need to have a vision of progress first, and then the Malthusian challenge can contribute to its radicalization.

Bruegel chooses in this painting not to highlight the worst consequences of scarcity and competition, aspects of life that would have been perfectly obvious to a man of his time. But that does not mean they are absent entirely. We see them at work in the inequality implicit in the painting, the distinction between city and country life, the somewhat menacing island fortress, the occasion for Icarus to be flying that is the story behind the picture, the existence of trade, the fact that the three peasants must make their livings by the sweat of their brows. All such things are just the norm in Bruegel's world. His acceptance stands in stark contrast to the mental gymnastics that advocates of transhumanism have to attempt in order to deal with scarcity and competition. As we saw, Drexler is driven to reject Malthusian scarcity in the near term, accept it over the longer term, and then argue

for its irrelevance even in the long term. To one-up him, Kurzweil has to speculate that things we take to be fundamental physical limits may prove subject to intelligent manipulation after all.

We are fortunate to live in a world where, based on some very hard work, Malthus's gloomy predictions about scarcity so far seem to have been confounded. Perhaps, then, Bruegel's resigned attitude is misplaced—perhaps innovation, like that of Daedalus, deserves a much more central placement in our picture of the world. But if scarcity and competition have not yet done their Malthusian worst, we should also note that we can hardly claim that Condorcet has obviously been vindicated. Material progress has had costs with respect to both want and excess that Condorcet did not anticipate, and to be satisfied that it has produced the moral progress he expected it to create would plainly be mere smugness. If, as suggested above, some sort of progress is not entirely alien to Bruegel's picture, it may navigate between the Scylla and Charybdis of these alternatives—between the pessimistic vision of Malthusian decline and the optimistic vision of progress—that so readily occupy our contemporary imaginations. Bruegel's in-between depiction may therefore be truer to the world we live in.

Finally, does Darwin's argument for the mutability of forms of life require us to abandon the perspective on human things that Bruegel seems to be suggesting? At the simplest level it does not, because a great many people in the world today, perhaps even most of them, are as little influenced by Darwin's ideas as Bruegel's peasants were, despite all the efforts of bestselling neo-Darwinian popularizers. We may decry such ignorance or (worse) obstinacy, but there it is; integrating Darwin into a horizon for understanding the world remains the achievement of a relatively small number, and it would be a brave soul today who would claim that these represent the vanguard the rest must necessarily follow.

Furthermore, it is not really that clear that Darwin's vision of natural evolution should be *expected* to change the shape of our lives to something other than what Bruegel observed. What life lessons ought we to learn from Darwin?¹² If his work represents a warning against a

certain kind of human pridefulness, it is hardly the only source of such a warning; if it teaches us that this too shall pass, we likewise need not learn that lesson from him. If Darwin links us to animals in our origins, that is a more distant link than the one a dispassionate observer of human things like Aesop can readily see in our actions.

It seems true that Darwinism confounds both pagan and Biblical stories of human origins, and it is impossible to deny the corrosive effect Darwinism has had on Biblical faiths. Yet here again its limited impact is worth noting. The secular view that Darwinism has been taken to advance has not achieved its ultimate victory, not only because (for better and worse) faith can trump materialistic rationalism, but because faith has adapted. Rather than say Darwinism confounds the Biblical stories, it would be truer to say that Darwinism confounds certain ways of understanding those stories, and long before Darwin there were ways of reading them that did not treat them simply as scientific, historical, or journalistic accounts of events.

The transhumanist case for modifying our Bruegel-like understanding of the everyday world depends on making a very un-Darwinian move: transforming evolution from a natural and long-term process into a human project today. Is it truer to Darwin to modify his ideas in this fundamental way, or simply to let evolution take care of itself, and continue, as a great many people seem to do, to live out their lives without a concern for the ultimate fate of *Homo sapiens* and our evolutionary successors?

No, if there is a flaw in Bruegel's portrait of the everyday, it is not in how it treats Malthusian and Darwinian realities, but that it contains so little hint beyond the scattered feathers of Icarus' wings of what Heisig reminds us of—that terrible things can become mundane. But Heisig and Bruegel might agree at least on this: what is terrible in the tale of Daedalus and Icarus reflects flaws and limits that make the human story what it is. We cannot simply wish these flaws away, lifting ourselves into some new state of affairs where they will make no difference. We might hope that our innovations always be motivated by a wish to be better, but they will certainly always arise within a

framework in which that wish has not yet been fulfilled, and that fact will always make their actual result uncertain.

THE POWER OF THE SEEMINGLY MUNDANE

Bruegel's painting suggests how transhumanists slight the power of the everyday, instead projecting our hopes and fears for the future onto what is essentially a blank canvas. Hoping to overcome the merely human, they look at the present from the point of view of their projection—judging the world around us as though they already understand the future—in order to give meaning and direction to present human activities. So what is important to them are the real or imagined innovations that serve as a prelude to this future whose own meaning will be beyond us. The prosthetic hand that could serve the disabled veteran is immediately attached to the pioneer who wants a third hand, and since he *wants* it, no further thought about the context in which such a thing might happen is considered necessary. If the transhumanists bother to look at anything in the past or present at all, it is only the as-yet-unrealized dreams of things like immortality or super powers. The godlike capacities that have long been wished for, and yet traditionally have been regarded as at least as much curse as blessing, if not far more curse, are turned into unambiguously normative aspirations. Such wishes become human essentials rather than aberrations.

With this blank canvas as their starting point, it does not seem so strange to transhumanists when they go on to assert that the meaning for life today, and a direction for future “progress,” is to be found in an incomprehensible future. Yet that argument creates a powerful bias, a tunnel vision that focuses on developments and possibilities that make the least sense from the point of view of where we are today and for that very reason suggests they are the most important things in the world of tomorrow. At the very least, this kind of tunnel vision is not the only way of treating the future. Like Bruegel, we can admit the desirability of innovation and still value the continuities that for

better and worse influence the meaning that those innovations will come to have for our lives, projecting the past and present into the future rather than the other way around.

Bruegel's alternative is not his alone; for example, a similar way of looking at the world is found in Tolstoy's *War and Peace*. Tolstoy describes how Pierre Bezukhov was changed by his experiences as a prisoner of Napoleon's army. Pierre grew up and, abandoning a way of looking at the world that sounds rather like the transhumanist vision, adopted a perspective like Bruegel's:

All his life he had looked off somewhere, over the heads of the people around him, yet there was no need to strain his eyes, but only to look right in front of him.

Formerly he had been unable to see the great, the unfathomable and infinite, in anything. He had only sensed that it must be somewhere and had sought for it. In all that was close and comprehensible, he had seen only the limited, the petty, the humdrum, the meaningless. He had armed himself with a mental spyglass and gazed into the distance, where the petty and humdrum, disappearing in the distant mist, had seemed to him great and infinite, only because it was not clearly visible. . . . Now he had learned to see the great, the eternal, and the infinite in everything, and therefore, in order to see it, to enjoy contemplating it, he had naturally abandoned the spyglass he had been looking through until then over people's heads, and joyfully contemplated the ever-changing, ever-great, unfathomable, and infinite life around him.¹³

For the advocates of the eclipse of man, the "spyglass" may be some distant future, aliens from the stars come to save us, the ever-rising trend line that brings the actual ever closer to the limits of the possible, or the posthuman Singularity. From all these imagined points of view there is little to be said for humanity as we see it in front of us—it is indeed petty, humdrum, and meaningless. Yet even if the futures

they look forward to are possible, and even if there are powerful forces at work behind the innovations that would bring them about, there is no necessity to look at them through the "spyglass" that the advocates of dehumanization use. The peculiar farsightedness of the spyglass makes small, speculative things look big and important while turning things that are close up into a blur. Instead of looking "over the head" of humanity to the alien or posthuman, we can attempt to see what is right in front of us, to meet human life face to face, and at the very least not abandon it until we are certain we have understood it and appreciated it on its own terms.

G. K. Chesterton writes of a reformer who sees a gate in the road and says, "I don't see the use of this; let us clear it away." A more intelligent reformer, Chesterton says, would respond this way: "If you don't see the use of it, I certainly won't let you clear it away. Go away and think. Then, when you can come back and tell me that you *do* see the use of it, I may allow you to destroy it."¹⁴ It is far from clear that the advocates of dehumanization have given much thought to the "use" of human beings, beyond various attempts at material explanations of why we are the way we are. There are a few exceptions: Winwood Reade and Nikolai Fedorov sought to place their arguments within an understanding of human things wider than the horizon of the power of technological possibilities. But most advocates of dehumanization, including today's transhumanists, are far more likely not only to take the world to revolve around the actual technological and scientific infrastructure, but to assume it revolves around what *might* become possible if only we clear away all old gates.

If we appreciate instead how important the seemingly mundane is in shaping our expectations and hopes about the world, we are more likely to ask why we have this or that technology, and why we want it, or why we want something different. What good does it do, or would we expect it to do? How does it fit with our vision of what makes for a good life—which of course may or may not be a vision of a good life simply.

Such questions will not be easy to answer. Since science and tech-

nology as such offer few if any resources for ethical reflection, on their own they leave us with a painfully thin understanding of the shape of human life. Furthermore, the advocates of dehumanization are just one part of a larger picture, and in our time that larger picture in commerce and the arts, in the humanities, in the natural and social sciences, is one that *often* simplifies, if not outright debases, our self-understanding in ways that reinforce the eclipse of man. If we lack the general intellectual tools required to make distinctions between progress and change, for example, or between freedom and willfulness, some of the transhumanists' heaviest lifting has already been done, for then it is easy to transform the possible into the necessary simply because it satisfies someone's desire.

THE PROGRESS OF HUMANITY

Beyond these particular blinders of our time and place, investigating the meaning of well-being has *never* been easy, because it requires a willingness to look at the question of the human good with care and seriousness, not taking the day-to-day for granted but not rejecting it dogmatically. That would mean neither the dogmatic acceptance nor the dogmatic rejection of the moral values of one's time and place. It would require avoiding cynicism and utopianism about human motives and possibilities. Such an investigation might yield a complex and mixed picture of what a good life is and how science and technology contribute to it. There will be grave uncertainties and honest disagreements along the way. We will likely find that even as individuals we have conflicting desires and visions of the good, not to speak of wider social and cultural disagreements. But the investigation is still worth undertaking if we want to speak meaningfully of "progress."

Putting all such challenges together, we begin to see why the problem of benevolence that has arisen in these pages looms so large. It can be hard enough to know what is genuinely benevolent when human beings are relating to human beings under the best of circumstances. When we start talking about benevolence directed to us by

beings of unimaginable power and knowledge, the only intellectual experience we have is summarized in theodicy, the effort to understand God's goodness in light of the manifest evils of the world. That effort, which has occupied many a great mind over many centuries, is, shall we say, ongoing. Why it would be any easier to settle were we to start having to talk about artificial superintelligence or advanced aliens is far from clear.

A willingness to act on the basis of nearly complete moral ignorance relative to the central question of progress—the question of what would make for a better world—is really the only justification for the otherwise simplistic desire for the eclipse of man. Otherwise, we would surely want to adopt more *modest* expectations for a human future. Surely it is not as if the only future that is worth looking forward to, and working hard for, is one in which we can achieve anything we can imagine, where everything will be permitted. If it were, what we are left with is mere pride in novelty and superlatives, a constant one-upmanship of imaginative possibilities that diminish the worth of human beings as we actually know them. With no clear goal, direction, or purpose, with willful freedom of choice as the guiding light, how could it be otherwise?

To be clear, this kind of needed modesty is not that of the SETI advocates, who are happy to expose what they take to be human vanity about our place in the universe. For that is a patently false modesty; diminishing what we are is only a prelude to pride in the great expectations of what we can achieve once we meet up with aliens, a goad to take up our true task of creating limitless possibilities.

The kind of modesty that we need acknowledges that there is much that can and ought to be done to make human lives better, and that science and technology will play a major role in that effort. At the same time, it does not take for granted what we mean by "better," in light of the whole range of human strengths and weaknesses that we observe when we pay attention, like Bruegel, to the world in front of us. We are notoriously in-between beings, neither beasts nor gods as Aristotle famously put it.¹⁵ How much confidence is appropriate, then,

in our abilities to wield the great powers that are being promised to us? We can hardly afford to act on the basis of thinking that because we can imagine a day when we are without human vices, we can therefore ignore their reality when presented with technologies that could be used to help them flourish.

Anything we actually accomplish will be the product of limited and flawed creators, so the odds are that our creations will of necessity perpetuate those limits and imperfections. As we have seen repeatedly in these pages, the more we place our understanding of technological change within the constraints of the world out of which it actually arises and through which it must percolate, the more it seems likely that the result will never be as wonderful or as terrible as less-disciplined imaginations can so easily make it.¹⁶ That hardly guarantees a good result, but if we are unwilling to take up seriously the question of what good means, and if we are too much influenced by the tunnel vision of the dehumanizers, we can hardly expect anything better.

Human beings, unlike other animals, can make deliberate choices to change what it means to be human. It may be that now we are seeing the beginnings of a real choice about being human at all. In attempting to confront the “grand vision” of the eclipse of man as such, we have seen how its advocates have made arguments against our humanity based on a painfully thin understanding of what it means to be human, and made promises that will lead to the demise of the goods sought even as they are fulfilled. Their project is neither as inevitable nor as rational as they would like to believe, and they are therefore certainly not excused from defending it on the moral grounds implicit in calling it progress: that it will actually create a *better* world.

Acknowledgments

THIS BOOK has taken longer to bring to fruition than I ever imagined it would. As a consequence, there are more people to thank than might otherwise have been the case. I only started to enhance my memory of such people by making a list after the process had already extended itself to such a degree that I fear there is every likelihood that I have forgotten some important assistance, kindness, or inspiration. To any of these people who might pick up this volume without finding the recognition due them, my sincere apologies.

It has been a deep pleasure for some years now to work in a variety of contexts, not the least of which is the Futurisms blog, with the talented editorial staff of *The New Atlantis*: Adam Keiper, Ari N. Schulman, Samuel Matlack, Brendan P. Foht, and Caitrin Nicol Keiper. They also served as my editors on this book. As usual, their thoughtful corrections and suggestions have the net result of making me seem a better writer and a more intelligent person than I am. My only excuse for complicity in this deception is that at least I am smart enough to recognize that is the outcome, and to acknowledge it herewith. Eric Cohen was the founding editor of *The New Atlantis*; he along with Peter A. Lawler at *Perspectives on Political Science* were

NEW ATLANTIS BOOKS

Adam Keiper, Series Editor

PREVIOUS VOLUMES:

Why Place Matters:

Geography, Identity, and Civic Life in Modern America

Edited by Wilfred M. McClay and Ted V. McAllister

Merchants of Despair:

*Radical Environmentalists, Criminal Pseudo-Scientists,
and the Fatal Cult of Antihumanism*

Robert Zubrin

Neither Beast nor God:

The Dignity of the Human Person

Gilbert Meilaender

Imagining the Future:

Science and American Democracy

Yuval Levin

In the Shadow of Progress:

Being Human in the Age of Technology

Eric Cohen

www.newatlantisbooks.com

Charles T. Rubin

ECLIPSE OF MAN

Human Extinction and the Meaning of Progress



New Atlantis Books

ENCOUNTER BOOKS • NEW YORK • LONDON



© 2014 by Charles T. Rubin

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Encounter Books, 900 Broadway, Suite 601, New York, New York 10003.

First American edition published in 2014 by Encounter Books, an activity of Encounter for Culture and Education, Inc., a nonprofit, tax exempt corporation.
Encounter Books website address: www.encounterbooks.com

Manufactured in the United States and printed on acid-free paper. The paper used in this publication meets the minimum requirements of ANSI / NISO Z39.48-1992 (R 1997) (*Permanence of Paper*).

FIRST AMERICAN EDITION

LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA

Rubin, Charles T.
Eclipse of man : human extinction and the meaning of progress /
by Charles T. Rubin.

pages cm

Includes bibliographical references and index.

ISBN 978-1-59403-736-8 (hardcover : alk. paper) —

ISBN 978-1-59403-741-2 (ebook)

1. Philosophical anthropology. 2. Human beings—Forecasting. 3. Human evolution.
4. Human body—Technological innovations. 5. Cyborgs. 6. Biotechnology—Moral
and ethical aspects. 7. Humanity. 8. Progress. I. Title.

BD450.R73 2014

128—dc23

2014022022

CONTENTS

Introduction · 1

CHAPTER ONE The Future in the Past · 11

CHAPTER TWO Discovering Inhumanity · 46

CHAPTER THREE Enabling Inhumanity · 81

CHAPTER FOUR Perfecting Inhumanity · 120

CHAPTER FIVE The Real Meaning of Progress · 162

Acknowledgements · 183

Notes · 187

Index · 217