

## Science and the Left

*Yuval Levin*

A casual observer of American politics in recent years could be forgiven for imagining that the legitimacy of scientific inquiry and empirical knowledge are under assault by the right, and that the left has mounted a heroic defense. Science is constantly on the lips of Democratic politicians and liberal activists, and is generally treated by them as a vulnerable and precious inheritance being pillaged by Neanderthals.

“For six and a half years under President Bush,” Senator Hillary Clinton told an audience in October 2007, “it has been open season on open inquiry.” Senator Edward Kennedy, in an April 2007 speech at the Massachusetts Institute of Technology, bemoaned the many ways in which “the truth is taking a beating” under conservative influence in Washington. One popular recent book on the subject is entitled *The Republican War on Science*; another, by former vice president and Nobel laureate Al Gore, is called *The Assault on Reason*.

But beneath these grave accusations, it turns out, are some remarkably flimsy grievances, most of which seem to amount to political disputes about policy questions in which science plays a role. Ethical disagreements over the destruction of embryos for research are described instead as a conflict between science and ignorant theology. Differing judgments about the proper role of government in sex education in schools are painted as a quarrel between objective public health and medieval prudishness. A dispute about the prudential wisdom of a variety of energy policy alternatives is depicted as a clash of simple scientific facts against willful ignorance and greed. And the countless minor personnel and policy decisions that always shape the day-to-day operations of the federal executive branch are pored over in an effort to reveal a nefarious pattern of retrograde anti-rational obscurantism. The president’s science advisor, it seems, now has an office located a little further from the Oval Office than his predecessors had, and a member of a Food and Drug Administration advisory board once wrote a book about his religious conversion.

The American right has no desire to declare a war on science, and nothing it has done in recent years could reasonably suggest otherwise.

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WINTER 2008 ~ 15

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The left's quixotic defensive campaign against an imaginary enemy therefore has little to tell us about American conservatives—who, of course, *do* have a complex relationship with science, though it is not the one the left seeks to describe.

But if this notion of a “war on science” tells us little about the right, it does tell us something important about the American left and its self-understanding. That liberals take attacks against their own political preferences to be attacks against science helps us see the degree to which they identify themselves—their ideals, their means, their ends, their cause, and their culture—with the modern scientific enterprise. New Mexico governor Bill Richardson seemed to speak for many when, in a speech in the course of his ill-fated campaign for the Democratic presidential nomination, he called upon Democrats to make theirs “the party of science and technology.” This is a more positive (not to say less paranoid) way of expressing the deep connection between science—understood both as a way of knowing and a means to doing—and the agenda of liberalism and progressivism.

Putting aside all the loose talk of a Republican assault on reason, this simpler point does ring true: There is indeed a deep and well-established kinship between science and the left, one that reaches to the earliest days of modern science and politics and has grown stronger with time. Even though they go astray in caricaturing conservatives as anti-science Luddites, American liberals and progressives are not mistaken to think of themselves as the party of science. They do, however, tend to focus on only a few elements and consequences of that connection, and to look past some deep and complicated problems in the much-valued relationship. The profound ties that bind science and the left can teach us a great deal about both.

### **The Party of Science**

Every democracy in the modern age has seen its politics divided into recognizable camps of progressives and conservatives: a party of radical reform and social revolution and a party of tradition and social stability. The divide has never been a clean one, and in America in particular it has been complicated by the nation's liberal tradition (so that the conservative party often defends classically liberal ideals while the progressive party seeks to push beyond them). But nuanced though it always is, this divide has been a defining feature of the political life of the West in the last two centuries. It has been with us roughly since the time of the French Revolution—which indeed gave us the terms “left” and “right” for the two great streams of political instincts and attitudes.

It is not unfair to suggest that the right emerged in response to the left, as the anti-traditional theory and practice of the French Revolution provoked a powerful reaction in defense of a political order built to suit human nature and tested and tried through generations of practice and reform. The left, however, did not emerge in response to the right. It emerged in response to a new set of ideas and intellectual possibilities that burst onto the European scene in the seventeenth and eighteenth centuries—ideas and possibilities that we now think of as modern scientific thought.

It is difficult for us today to fathom the extent of the excitement, optimism, and enthusiasm set loose upon Europe by the emergence of modern science in the seventeenth century. As its teachings and its applications spread (and particularly in the wake of Isaac Newton's extraordinary reformulations of natural phenomena in mathematical terms), their potential seemed boundless.

To the layman enthusiasts of the new science (Voltaire, for instance, who published numerous popularizations of Newton's ideas and began a kind of "cult of Newton" in French intellectual circles) its great promise was not only in its power to explain nature, but in its capacity to offer an alternative to tradition, and especially religious tradition.

By offering both new answers and a powerful new way to seek more answers to the mysteries of nature, the methods of modern science seemed to promise a direct path to knowledge that did not depend upon archaic tradition and faith, and did not answer to the institutions of the church or the state. Using empirical observation properly assessed by straightforward scientific methods based in reason, individuals could abandon all they were told by authority and seek direct unmediated knowledge on their own. Knowledge, René Descartes and his followers asserted, could begin from scratch and build itself on firm foundations. The allure of starting from scratch in political life as well soon became hard to resist.

Descartes' and Newton's powerful new approach also introduced several other appealing methodological innovations. It worked by breaking large phenomena down to their constituent parts and understanding the whole as a function of parts, not the other way around (a mechanical, rather than organic, conception of nature). And it rejected teleology as well, and so sought to understand the objects of nature not by the ends toward which they were said to be oriented, but by the beginnings from which they appeared to emerge.

The power of these new and effective methods of knowing cannot be overstated. They were bound to burst the boundaries of merely scientific

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thought—and in the realm of political thought, they quickly gave shape to a fervent anti-traditionalism, and to a thoroughgoing mechanism and individualism, all of which would play a great part in the drama of the modern age.

On the one hand, and particularly in Britain, these ideas led to a rational new political philosophy based precisely on individualism, materialism, and a historical explanation of human affairs. In the beginning, Thomas Hobbes and John Locke argued, was the individual alone—a state of nature of equal unconnected particles in motion. These individuals, the atoms of society, eventually joined to address their material needs and their fear of death (which happen also to be the needs and fears addressed by the new science), and society is best understood as a function of those individuals, needs, and concerns, all accounted for by rational contract and individual will. This new politics, which we now think of as classical liberalism, made possible a thoroughgoing case for equality and liberty, defensible by postulates and premises grounded in individualist materialist premises and building up with geometric exactitude.

On the other hand, and particularly in France, these same ideas (including Locke's political translation of them) contributed to a powerful zeal to overthrow tradition and replace it with rational design. The *philosophes* who paved the way for the French Revolution were not only intensely anti-traditional and anti-religious, they were also in many cases able students (and in a few cases, like Jean le Rond D'Alembert, even great innovators) of the new science, not by coincidence. Their political principles emerged from an effort to produce a fully rational model of political life from scratch, a model that began from individualism, and that understood liberty and equality in terms borrowed directly from the parlance of the scientists. Science, for them, was a profoundly progressive liberating force, a great sword with which to slay mighty kings and priests, and a new path to ever-increasing knowledge that could only lead to ever-increasing freedom. It all depended on beginning every political action from the most basic possible material assumptions and reasoning from established premises to a conclusion—which in practice had to mean rejecting all that existed simply by habit, and beginning anew. Traditional institutions that had long endured could only be defensible if they, too, met this test of reason from scratch. The more thoroughly grounded in rational scientific thinking a society could be, the more legitimate and free it would be—and with time, the direction of progress was clear: away from tradition and toward rational mastery.

This is, of course, a crude, brief history of several centuries of new ideas. And in some respects it even minimizes the degree of integration between

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the new politics and the new science—integration that worked both ways, as the ideas of Machiavelli fed those of Bacon and Descartes, and theirs in turn gave rise to a liberal and a revolutionary politics. But when the modern left was born, largely in the great crucible of the French Revolution, these ingredients had long been combining, and the new way of thinking—anti-traditional, egalitarian, liberationist, progressive, highly rationalized, and always forward-looking—was bound up at its birth with modern science. The material aims of science suited the aims of the left, and the intellectual means of science were the preferred means of the left. Above all, the progressive vision of ever-growing knowledge, and with it ever-growing power (and therefore ever-growing freedom), is the common legacy of both.

The immense enthusiasm unleashed upon the world of ideas by the scientific revolution was a wave of progressivism—not just in science but also in politics. Its central assertion was that the future would be very different from the past, because the past was rooted in error and prejudice while the future would have at its disposal a new oracle of genuine truth. It was a revolutionary ethic of discontinuity the likes of which had never before been seen in human history.

That vision, of course, has always had an element of naïve utopianism to it, especially in its overestimation of the power of knowledge to liberate and an underestimation of the need for traditional restraints on human willfulness. This, too, has been a common legacy of science and the left. “The condition of the world being materially changed by the influence of science and commerce,” Thomas Paine wrote in 1782, “it is put into a fitness not only to admit of, but to desire, an extension of civilization. The principal and almost only remaining enemy it now has to encounter is prejudice; for it is evidently the interest of mankind to agree and make the best of life.” A lovely foolishness, of course, and still very much a strand of left-wing thinking, in both its loveliness and its foolishness.

As the left has advanced from its birth in the French Revolution, it has kept its eye on the value of science as a way of thinking and a way of doing. Its excesses—like the gruesome experiment in applied social science called communism—have drawn on science and pseudo-science. And its successes—like progressive social and public health reforms—have often done the same.

For modern progressives, science as a method of knowing has been especially important. John Dewey, perhaps the greatest philosopher of American progressivism, argued that the scientific method, “a shorthand designation for the great and ever-growing methods of observation, experiment, and reflective reasoning,” held the key to the solutions to

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social problems—and that these problems persist only because scientific methods of knowledge and reasoning have yet to be applied to them. “Science,” Dewey wrote in 1946, “bears exactly the same relation to the progress of culture as to the affairs acknowledged to be technological (like the state of invention in the case, say, of tools and machinery, or the progress reached in the arts, say, the medical).” He continued:

A considerable part of the remediable evils of present life are due to the state of imbalance of scientific method with respect to its application to physical facts on one side and to specifically human facts on the other side... the most direct and effective way out of these evils is steady and systematic effort to develop that effective intelligence named scientific method in the case of human transactions.

The great contribution of science, in this sense, is not so much in the technologies it makes possible, as in the modes and methods it has developed for understanding problems and conceiving solutions. Science is a path to knowledge, and for American progressives, scientific knowledge is the path to social progress.

Both as action and as knowledge, then, science has been a source of inspiration for progressives and for liberals, and its advancement has been one of their great causes. That does not mean that science captures all there is to know about the left. Far from it. The left has always had a deeply romantic and even anti-rationalist side too, reaching back almost as far as its scientism. But in its basic view of knowledge, power, nature, and man, the left owes much to science. And in the causes it chooses to advance in our time, it often looks to scientific thought and practice for guidance. In its most essential disagreements with the right—in particular, about tradition—the vision defended by the left is also a vision of scientific progress.

The left is therefore generally justified in thinking of itself as the party of science. But for all its advantages, this relationship is not a simple matter. It is subject to some important and complicated tensions, which are emerging with special force in our own day.

### **Power and Progress**

The great original appeal of the scientific enterprise was its potential to empower man over nature. Francis Bacon set out the conquest of nature as his aim. René Descartes sought to make human beings “masters and possessors of nature.” And the scientific community they helped to found

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has since continued to pursue these twin objectives: expanding human power and conquering nature.

But for the modern left, each of these key aims of modern science has grown deeply problematic. To begin with, over the past century the left has come to take a rather complicated view of power. It has become highly suspicious of certain kinds of power: the power of nations, of corporations, of the rich over the poor, of man over nature (or as it has been renamed, to make it passive, “the environment”).

Much of this change took place in course of the twentieth century—a time of previously unimaginable inhumanity and villainy. Shaken by examples of power run amok, and by exposure to and interaction with postmodernism (with its excessive and blinding obsession with power), many on the left became opponents of power as such, in ways that earlier progressives had decidedly not been. This is evident in the ethic of the environmental movement, in progressive views of foreign policy and economics, and in the general tenor of the left.

But this suspicion of power seems not to have made much headway in the left’s views about the two most powerful institutions of the age: the state and science. This is easier to explain when it comes to the state, which American liberals and progressives have taken to be the essential institution of social solidarity, political expression, material improvement, and justice. The ideology of the left is centered upon a proper employment of the power of the state, and so the left is naturally disinclined to turn against the use of such power.

But blindness to the power of science is a more perplexing quandary, and one not yet seriously faced by the left. Science (as the true postmodernists know) is the foremost font of modern power, and the underlying source of almost all the expressions and incarnations of power the left does find troubling: industrial power, corporate power, military power, imperial power, and especially human power over the natural world.

Indeed, it is in the arena of environmentalism, more than anywhere else, that this blind spot of the party of science is most pronounced. There, the left’s problem with power and the left’s problem with conquering nature become one—yet the role science plays in making both possible has never come front and center.

### **The Conquest of Nature**

In the past three decades, environmentalism has become a fully integrated component of the worldview of the American left, the party of science.

But the perspective of environmentalism could hardly be more different than that of modern science on the questions of nature, power, progress, and man.

Modern science is grounded in a particular view of nature, both material and moral. The natural world, thought the fathers of science, is matter in motion; it is best understood by being pulled apart into its constituent forces and pieces, and experimented upon under duress. “The nature of things betrays itself more readily under the vexations of art than in its natural freedom,” Bacon argued, because nature is not a whole but a sum of parts, and is not moved by a purpose, but driven by discrete causes alone. Nature, moreover, is the chief constraint on human power and human comfort, and the extension of the empire of man over nature is a noble and necessary goal. For too long, they thought, human beings had been subject to the whims of nature and chance, but by coming to know the workings of nature, we could master it, both removing natural obstacles and constructing artificial advantages for ourselves. “Nature, to be commanded,” Bacon wrote, “must be obeyed,” so the purpose of the new natural science was to learn nature’s ways so as to overcome them. This desire for knowledge of and power over nature was not power-hunger, it was humanitarianism. Nature, cold and cruel, oppresses man at every turn, and bold human action is needed in response. Science arose to meet that need.

If you had to devise a complete opposite to this scientific view of nature, a mirror image in essentially every respect, you would probably end up with roughly the notion of nature that gives shape to the modern environmentalist ethic. Nature in this view is, to begin with, a complete and ordered system, to be understood in whole and not in part. “When we try to pick out anything by itself, we find it hitched to everything else in the universe,” wrote John Muir, a founder of modern environmentalism. Far from conquering and manipulating nature for his benefit, moreover, man must be careful and humble enough to tread gently upon it, and respect the integrity (and even the beauty) of its wholeness. We are to stand in awe before nature, and never to overestimate our ability to overcome it or underestimate our ability to harm it (and with it ourselves). “We have forgotten how to be good guests, how to walk lightly on the earth as its other creatures do,” wrote the great British environmentalist Barbara Ward in her 1972 book *Only One Earth*.

Taken to the extreme, this approach turns the scientific view of nature on its head, and looks at man as an oppressor of the natural world instead of the other way around. The title of one popular recent book, for instance, imagines the peace and beauty of *The World Without Us*. “How

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would the rest of nature respond if it were suddenly relieved of the relentless pressures we heap on it and our fellow organisms?” the author asks.

How soon would, or could, the climate return to where it was before we fired up all our engines? How long would it take to recover lost ground and restore Eden to the way it must have gleamed and smelled the day before Adam, or *Homo habilis*, appeared? Could nature ever obliterate all our traces?

Not all environmentalism indulges in such anti-humanism, to be sure. But in all of its forms, the environmentalist ethic calls for a science of beholding nature, not of mastering it. Far from viewing nature as the oppressor, this new vision sees nature as a precious, vulnerable, and almost benevolent passive environment, held in careful balance, and under siege by human action and human power. This view of nature calls for human restraint and humility—and for diminished expectations of human power and potential.

The environmental movement is, in this sense, not a natural fit for the progressive and forward-looking mentality of the left. Indeed, in many important respects environmentalism is deeply conservative. It takes no great feat of logic to show that conservation is conservative, of course, but the conservatism of the environmental movement runs far deeper than that. The movement seeks to preserve a given balance which we did not create, are not capable of fully understanding, and should not delude ourselves into imagining we can much improve—in other words, its attitude toward nature is much like the attitude of conservatism toward society.

Moreover, contemporary environmentalism is deeply moralistic. It speaks of duties and responsibilities, of curbing arrogance and vice. As Charles T. Rubin puts it in his insightful 1994 book *The Green Crusade*, “environmentalism is the temperance movement of our time,” albeit largely devoid of the religious convictions that moved those prior progressives. Think “addicted to oil.” It is a movement stirred by moralism to reform a prominent human excess, and driven by the hope that this reform will improve almost everything about life. As Al Gore put it before a Senate committee not long ago, “the climate crisis is not a political issue; it is a moral and spiritual challenge to all of humanity.”

Indeed, writ large, the environmental movement aims to repeal the modern way of life. At its most ambitious, it seeks to curb industrialism and consumerism, to make the human experience less artificial and more “authentic” (or, to employ the favored buzzword of the day, “organic”), to emphasize the simple and the local, to reduce the scale of human ambition.

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This describes a brand of conservatism too conservative even for the American right, and one that is deeply at odds with the ethic of rationalization and scientific improvement and progress.

Some elements of this approach are not entirely new to the left, at home or abroad. The yearning for authenticity and simplicity, the revulsion at power, and the skepticism of technology and systematic knowledge have been elements of what came to be known as the “new left” in the late 1960s, and to some extent had characterized progressive politics for far longer, too. They have had a lot to do with shaping the ideology of left-wing parties throughout the West. But the manifestation of this approach in the modern environmentalist movement is far more prominent, more powerful, and, for the left, more complicated than any other.

It is prominent and powerful because environmentalism, and particularly concern with global climate change over the past decade or so, has come to play an astonishingly central role in the politics of the West. In a time when Iran is reportedly pursuing nuclear weapons, North Korea is violating international agreements, the future of Iraq remains uncertain, genocide persists in Sudan, and countless other crises threaten the peace of the world, Ban Ki-Moon, upon taking his post as Secretary General of the United Nations in 2007, listed climate change as his top priority. “The danger posed by war to all of humanity and to our planet,” he said, “is at least matched by the climate crisis and global warming.” European Commission President Jose Barroso has argued that climate change must be the European Union’s top priority as well. German Chancellor Angela Merkel has called it “humanity’s greatest challenge.” Even stipulating the basic facts regarding global climate change, this kind of attitude is surely absurd.

There is no question that for some, especially in Europe, the obsession with climate change is a way to avoid thinking about serious geopolitical problems, particularly the threat of radical Islam. Rather than marshalling modernity to defend itself, this obsession allows Western elites to persist in a silly and feckless pseudo-moralism. Instead of looking to America for leadership and protection, it allows them to blame America for its strength and its confidence. And for some on the left, too, the obsession is a way to stir up the kind of crisis atmosphere necessary for some pet causes and ideas to become politically plausible. But whatever the reason, environmentalism, and with it a worldview deeply at odds with that behind the scientific enterprise, has come to play a pivotal role in the thinking of the left.

So far, the American left has managed mostly to ignore this difficulty, and to treat environmentalism as a cause of the party of science. An ongoing dispute about the basic facts and figures of global warming has

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made this easier by putting science and environmentalism on the same side for a time. But as that argument subsides, and attention turns to the causes of environmental degradation and to possible solutions, the fissure between science and environmentalism will be harder to ignore. An American environmentalism newly empowered by a decades-long debate that put it front and center on the agenda of the cultural and political left may come to resemble the European Green movement, which shares many of the attitudes of American progressives, but which does not view itself by any means as a party of science. Indeed, the Greens in Europe have been at the leading edge of nearly every contemporary effort to curb the power and the reach of science, most notably biotechnology—from bans on human cloning to prohibitions against genetically modified foods. But in America, the left has yet to confront this glaring complication in its claim to the mantle of the party of science. Science, it turns out, is behind much of what troubles and worries the left.

### Created Equal

To the extent that Americans have pursued any serious limits on science in recent years, they have done so not as Greens concerned for the integrity of nature, but as conservatives concerned for the equality and dignity of man. And the most politically potent of these efforts have been grounded not in human dignity—a crucial concept, though one still sorely in need of intellectual refinement—but in human equality, largely understood.

The defense of dignity is a defense of the stature of man, and a reaction against efforts to demean or lower him. Some concerns about science take this form, as for instance when critics worry about enhancement technologies that could undermine the meaning of human performance, or about the potential of human cloning to distort family relations and confound human identity.

But as these tend to be futuristic worries, and as dignity so understood is something of an aristocratic notion, these concerns have not been key to the bioethics of the right. Most conservative critics of science (and particularly of biotechnology) are worried for human equality—and indeed very often when they speak of human dignity, they actually have equality in mind.

Human equality is, of course, the great American ideal, inscribed upon the nation's birth certificate as a self-evident truth. Equality has also been a defining cause of the left, from the French revolutionaries marching under the banner of "*liberté, égalité, fraternité*," to the movements for civil rights and equal treatment in America, to the commitment to democracy and the

economic theories that continue to shape the politics of liberals and progressives. The party of science has, from the beginning, also been a party of equality. And at the dawn of the modern left, the advocates of science and of equality believed the two great projects would advance together. “The general spread of the light of science,” Thomas Jefferson wrote, “has already laid open to every view the palpable truth that the mass of mankind has not been born with saddles on their backs, nor a favored few booted and spurred, ready to ride them legitimately, by the grace of God.” Science, he believed, would simply demonstrate human equality. But it has not worked out that way, and today modern science poses greater and deeper challenges to our belief in human equality than any other force in modern American life. Science exacerbates key difficulties with equality, and equality points to the limits of the scientific worldview—although the left, which seeks to advocate both, has not yet fully come to see this.

When the left is critical of science and technology on egalitarian grounds, its concerns tend to focus on unequal access to benefits. The emergence of new technologies, it is argued, contributes to inequality by creating new haves and have-nots. This has been a common concern from the beginning of the industrial age, but the evidence of history suggests it is not well founded. New technologies can surely exacerbate some existing inequalities, but they can also help ameliorate them, and in general they are not the cause of novel social inequalities. The fruits of technology, especially in democratic societies, have made their way to all levels of society fairly quickly. We no longer hear much about “the digital divide” that was much on the lips of social critics of computer technology just a decade ago, for instance, and it is unlikely that new biotechnological advances will create lasting distributive inequalities either.

The trouble science poses for egalitarianism runs much deeper than that: It involves on the one hand a weakening of the case for human equality, and on the other a positing of ends and purposes taken to be higher and more important than equality.

Science, simply put, cannot account for human equality, and does not offer reasons to believe we are all equal. Science measures our material and animal qualities, and it finds them to be patently unequal. We are, after all, obviously not all equally large or small, tall or short, strong or weak, healthy or ill. We are born physically and mentally unequal, and always remain so. To examine only our animal qualities is surely to conclude that we are far from one another’s equals. And so to assume that there is nothing more to us than our animal qualities (as the modern scientific outlook does) is to assume inequality is the human condition.

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Yet it is precisely the ways in which we are more than animals that any serious case for equality is grounded; to imagine that no such ways exist is to assert that no such case could be legitimate. The closer the left aligns itself with the ideology of modern science (taking, for instance, all human actions and beliefs to be mere functions of neural biochemistry) the further it seems to distance itself from any sensible case for egalitarianism.

The case for human equality does not require a rejection of empirical science, but it does appear to depend on some sense of the limits of science's reach, and on the view that some elements of the human experience are best understood in something other than scientific terms.

There are, in fact, several fairly distinct types of modern arguments for equality each best understood on its own terms, and some are far more vulnerable than others to the scientific case against equality.

One common and powerful case for human equality begins with the Judeo-Christian notion that human beings are made in the image of God. We are equal to every human being and unlike every other creature, this transcendent view asserts, as bearers of that image and that relation to the divine. This is also, for some, an argument for human dignity: equal dignity as creatures marked by divinity.

A related case for equality relies on the common created origins of human beings to assert a foundation for equal treatment in society. As the Declaration of Independence puts it, "all men are created equal" and "are endowed by their Creator with certain unalienable Rights." This approach makes equality itself the premise upon which all other political institutions and arrangements are constructed, and therefore does not so much make a case for equality as build all other cases upon the assumption (or self-evident truth) that all are equal. This is a less expressly religious egalitarian case: it posits God's creation of man as the source of human equality, but does not further rely on the divinity of that beginning. It relies upon the modern (and in some respects scientific) notion that origins explain everything. Since human beings are equal in their origin, they must also be equal in their social standing.

The classical liberal case for equality, meanwhile, builds on this argument from origins, adding to it a theory of the origins of society, and not just man. It posits a time before all society—a state of nature—and takes man's bearings by what might have been true of him in such a state. The state of nature, John Locke writes, is

a state also of equality, wherein all the power and jurisdiction is reciprocal, no one having more than another; there being nothing

more evident, than that creatures of the same species and rank, promiscuously born to all the same advantages of nature, and the use of the same faculties, should also be equal one amongst another without subordination or subjection.

This equality is so evident because there are no pre-existing social connections to define different ranks. Human beings in this state are unconnected individuals, and so are all on the same level—whether equally covetous and miserable (as Thomas Hobbes would have it) or equally free and desirous of peace (as Locke would). Liberal egalitarianism, in this sense, is actually a function of liberal individualism. The origins of society are, then, in the rational agreement of unconnected equal individuals: equally endowed with rights to life, liberty, and property, and equally vulnerable to nature and their fellow men. All association follows from that individualist premise.

The premise, however, is highly dubious. Liberalism's creation myth—that society's natural history begins with unconnected individuals—allows for an internally consistent case for equality, but it surely bears no connection to the actual history of humanity. As the philosopher David Hume put it, "men are necessarily born in a family-society at least." Conservatives, beginning especially with Edmund Burke, have been harsh critics of this terribly implausible liberal tale of beginnings. And in our time most on the left don't take it very seriously either.

Instead, some, following the lead of Immanuel Kant, have made a case for equality based on the rational capacity of the human person—a case that celebrates reason as worthy of respect, and shows regard for the rational animal; and therefore a case that values man for possessing a particular ability, rather than merely for being human. This is more of a case for rationalism than equality, though in practice it can build a foundation for significant protections of human rights, even if it cannot explain the source or nature of those rights.

But most liberals and progressives, to the extent they have thought through an argument for equality, have adopted egalitarianism as a means to justice, or more precisely to fairness, clinging to the ideal of equality because it is useful, or because it works, rather than because it is self-evidently true. This is not a bad reason to insist on equality, but it does make for a weak and very vulnerable egalitarianism. The exemplar of this approach is the political theorist John Rawls. Rawls takes for granted that the state of nature and the social contract are imaginary, and proceeds to ground his own theory even further from actual human experience. He

asks readers to imagine themselves designing a society from scratch with knowledge of how politics works, but no knowledge of what position they themselves would occupy in that society. In that situation, he reasons, all of us would choose an egalitarian society with equal opportunity for all—just in case we found ourselves on the lower rungs of the social ladder. Such a society is therefore the most fair and just (indeed, Rawls argues, fairness is the very definition of justice), and offers a model of what real societies should strive for. In other words, we would do best to *pretend* that all men are created equal.

This tentative and purely functional commitment to equality—an egalitarianism of convenience—is exceedingly vulnerable to being undercut by science. Science not only provides empirical evidence against material human equality, but it also sometimes proposes means to material ends (to comfort, to wealth, to power, to health) that rely upon unequal treatment. The left's thin egalitarianism is ill-equipped to resist such an offer.

### Liberal Eugenics

American progressives have stumbled on this path before. In the late nineteenth and early twentieth centuries, the cause of material progress and scientific control, together with some crude misapplications of Darwinism, combined to form an energetic and progressive program of eugenics, beginning with public education toward selective breeding based on valued family traits, and culminating in a massive project of sterilization—including coercive sterilization laws in more than twenty states—of those found mentally or physically wanting. Nearly every prominent American progressive championed eugenics as an appropriate application of scientific knowledge to the nation's social ills. Herbert Croly, founder of *The New Republic*, argued in 1909 that to “improve human nature by the most effectual of all means—that is, by improving the methods whereby men and women are bred” would be crucial to social reform. Margaret Sanger, the progressive activist and founder of Planned Parenthood, wrote in 1922 that “drastic and Spartan methods may be forced upon society if it continues complacently to encourage the chance and chaotic breeding that has resulted from our stupidly cruel sentimentalism.”

That “stupidly cruel sentimentalism” was, of course, American egalitarianism. Eugenics was most fundamentally a denial of human equality. By holding the quality of the gene pool above the equality of mankind, it forced a choice between science and equality, and most American progressives made the wrong choice. Eugenics was in time fatally tainted by its

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association with Nazi practices in the Second World War, though in some states eugenic laws and practices remained in effect well into the 1950s and even the early 60s. Most American progressives were not Nazi sympathizers by the time the war came, though, and so could legitimately distance themselves from the practices Americans found most abhorrent. This meant that the way eugenics went out of style actually protected progressives from fully coming to terms with their earlier commitment to scientific selection, and therefore with the tension between science and equality.

But such a reckoning, long put off, appears now to be nearing again. Today, a rather different sort of effort to apply control and selection over the next generation is emerging, in the form of a growing movement to test developing human embryos and fetuses for ailments and weaknesses (or even just the wrong sex), and to eliminate those found to bear them. The trend itself is undeniable. Ninety percent of Down syndrome pregnancies in America are aborted, for instance. In Europe, according to one recent study, “40 percent of infants with any one of eleven main congenital disorders were aborted” between 1995 and 1999.

Selection of embryos based on genetic traits (through what is called preimplantation genetic diagnosis) is becoming an increasingly routine element of in vitro fertilization treatment. And as the British IVF pioneer Robert Edwards put it in 1999: “Soon it will be a sin of parents to have a child that carries the heavy burden of genetic disease. We are entering a world where we have to consider the quality of our children.” This is the language of the new eugenics.

Its defenders argue that this “liberal eugenics” (as the British writer and advocate of such practices Johann Hari has dubbed it) is fundamentally different from that of the early twentieth century because it is not coercive or state-mandated but instead is a matter of individual or family choice. It is also not based on race distinctions or assessments of intelligence or social class. It is often (though not always) carried out by parents, when they discover their child has a condition they believe would be a grave detriment to his or her welfare or happiness, or (less often) when they find out that their child is simply not the kind of child they want. “Much of the bad reputation of eugenics,” write the liberal bioethicists Allen Buchanan, Dan W. Brock, Norman Daniels, and Daniel Wikler, “might be avoidable in a future eugenic program.”

These differences are certainly significant. But surely the most essential problem with the eugenics movement was not coercion or collectivism. It wasn’t even the revolting notion of a duty to improve the race. The deepest and most significant contention of the progressive

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eugenicists—the one that made all the others possible—was that science had shown the principle of human equality to be unfounded, a view that then allowed them to use the authority of science to undermine our egalitarianism and our regard for the weakest members of our society.

Today, as then, belief in equality remains essential for much of the worldview and agenda of the left. But today, as then, the left finds itself ill equipped to defend that belief against this kind of assault. The egalitarian justice of John Rawls offers little help, and indeed Rawls himself made plain that his theory was compatible with eugenics. In his magnum opus, *A Theory of Justice*, Rawls argues that given his principles, each generation should be seen to owe the future a society with “the best genetic endowment,” and that “thus, over time a society is to take steps to preserve the general level of natural abilities and to prevent diffusion of serious difficulties.” He is not specific as to just how this might be accomplished, but it is hard to conceive of an egalitarian means for achieving it. If equality is purely a means to an end, then a more effective means to that end will be hard to resist, and equality will be easily swept away as a needless obstruction.

### Science versus Equality

This two-fold challenge science poses to equality—dismissing it as unfounded on the one hand and condemning it as an obstacle to material improvement on the other—has crystallized in recent years in the heated public debate over embryo research. The capacity of the left to stand firm on the ground of egalitarianism has been tested in that argument, and found badly wanting.

The stem cell debate, which began in the 1990s and which may soon begin to subside thanks to scientific developments that provide alternative sources of cells that do not require the destruction of embryos, has been mired in confusion from the start. In large part because of its connection to the (related but distinct) abortion debate, the simplest terms of the argument have not been well understood.

The debate is, to begin with, not about stem cell research, any more than an argument about the lethal extraction of livers from Chinese political prisoners would be a debate about organ transplantation. There are ethical and unethical ways to transplant organs, and the same is true for stem cell research. The question is to which category a particular technique—the destruction of living embryos for their cells—belongs.

The debate is also not about whether there ought to be ethical limits

on science. Everyone agrees there should be strict limits when research involves human subjects. The question is whether those limits should apply to the case of human embryos. But that does not mean the stem cell debate is about “when human life begins.” It is a simple and uncontroversial biological fact that a human life begins when an embryo is created. That embryo is human and it is alive; its human life will last until its death, whether that comes days after conception or many decades later in a nursing home, surrounded by children and grandchildren. All of us were once embryos, and none of us were sperm or egg. Our lives began when the gametes combined to form a new human being.

But the biological fact that a human life begins at conception does not by itself settle the ethical debate. The human embryo is a human organism, but is this being—microscopically small, with no self-awareness and little resemblance to us—a person, with a right to life?

At its heart, then, when biology and politics have been stipulated away, the stem cell debate is not about when human life begins but about whether every human life is equal. The circumstances that have forced this question—the ability to create a human embryo outside the body of a mother—have also put it in the most exaggerated form imaginable, but they do not change the question. It is true that the destruction of embryos for research might yield great medical benefits, and so could help us or our loved ones in a time of grave need. And yet it is also true that human embryos are human beings in the earliest stages of development. Which truth is more important?

The answer depends on one’s view of the truth asserted as self-evident by the Declaration of Independence, and the science of embryo research has forced us to confront that question in the starkest possible way. The Kantian case for equality—which respects the bearer of reason—shows little regard for this human being at the brittle and mindless beginnings of life (or indeed for those at its frail and fallen end). Meanwhile, the thin functional case for equality finds it hard to ignore the greater use to which embryos might be put if only we disregard their humanity. The prospects of embryo research have caused liberal egalitarianism to come under attack by liberal humanitarianism. And the left has chosen to side with the latter, forgetting how profoundly it depends upon the former.

The American left seeks to be both the party of science and the party of equality. But in the coming years, as the biotechnology revolution progresses, it will increasingly be forced to confront the powerful tension between these two aspirations. In some instances, as apparently in the stem cell debate, it will be possible to avert the difficult choice (though

even doing this will require a commitment to equality sufficient to elicit the necessary scientific creativity for a solution). In other instances, a choice will be called for, and the character of the left will heavily depend upon the choice it makes.

To choose well, the American left will need first to understand that a choice is even needed at all—that this tension exists between the ideals of progressives, and the ideology of science.

### **The Uneasy Alliance**

Mastery of chance and of the given world is the deepest progressive longing, and so it is not surprising to find progressives on the side of science. But that same desire for mastery, and especially the rejection of the given, is also a denial of respect for equality and ecology, which progressives continue to claim among their highest ideals. Both ideals rely upon the presence of some unmastered mystery—some order beyond our grasping reach. A turning away from that humbling mystery, and toward unbounded will, is the inevitable (and indeed intentional) consequence of the progress of the modern scientific enterprise. That progress brings with it immense benefits, but if left to itself it threatens a great deal as well, including much that is of importance to the left.

Meanwhile, the left has also adopted an easygoing relativism about moral and cultural questions, so that science has come to be seen as the only source of objective knowledge—of knowledge equally true everywhere and all the time. Science thus cannot help but be elevated to an almost spiritual level, and to exercise an even more powerful pull on the thought and the politics and the imagination of the left, exacerbating the tensions inherent in the worldview of the party of science.

Recent political enthusiasms have aggravated these tensions all the more. The desire to win the stem cell debate (which proceeded under the shadow of the even more heated abortion debate) has driven the left closer to a rejection of equality than it might otherwise have been inclined to move. And the dispute regarding global warming has tied the left to an environmentalism that is in many respects a very strange bedfellow for liberalism. In the throes of political combat, however, these tensions have been obscured, and an imaginary larger fight for science—the enthusiastic counter-attack against a nonexistent “assault on reason”—has further helped to keep them hidden. But they will not remain hidden for long. In defense of science, the left has turned on itself, and forced to the surface some serious questions about its principles and priorities.

The answer, as ever, is moderation. The American left, like the American right, must understand science as a human endeavor with ethical purposes and practical limits, one which must be kept within certain boundaries by a self-governing people. In failing to observe and to enforce those boundaries, the left threatens its own greatest assets, and exacerbates tensions at the foundations of American political life. To make the most of the benefits scientific advancement can bring us, we must be alert to the risks it may pose. That awareness is endangered by the closing of the gap between science and the left—and the danger is greatest for the left itself.