It is not a question of annihilating science, but of controlling it. Science is totally dependent upon philosophical opinions for all of its goals and methods, though it easily forgets this.
—Friedrich Nietzsche

The more that the results of science are frankly accepted, the more that poetry and eloquence come to be received and studied as what in truth they really are,—the criticism of life by gifted men, alive and active with extraordinary power.
—Matthew Arnold

The Corridors of Power” and “The Two Cultures”: these phrases are essentially what remains of the once towering reputation of Sir Charles Percy Snow, novelist, pundit, and—as his harshest critic, F. R. Leavis, put it—“public relations man” for science. C. P. Snow (1905–1980) was the son of a provincial church organist who rose to public acclaim and a baronetcy through a mixture of geniality, application, and talent—more or less in that order. He was the embodiment of a certain type of educated philistine: bluff, well-meaning, clubbable, so well-rounded as to be practically spherical. In the Thirties, Snow abandoned an incipient scientific career in order to devote himself to writing. He published his first novel, a whodunit called Death Under Sail, in 1932. During the war, Snow’s technical background helped win him the important post of overseeing recruitment for Britain’s scientific research (hence his acquaintance with “the corridors of power”). And the novels kept appearing. By the Fifties, Snow’s novel sequence Strangers and Brothers was occasionally compared to A la recherche du temps perdu. Today, the word that seems most often used to describe his novels—on the rare occasions that they are described—is “inert.” In a generous moment, Edmund Wilson defended Snow but anticipated the judgment of history in finding his novels “almost completely unreadable.” “The corridors of power” furnished the title for one of Snow’s novels; it is all that is left of the work. Things are a little different with “the two cultures.” The phrase has lived on as a vague popular shorthand for the rift—a matter of incomprehension tinged with hostility—that has grown up between scientists and literary intellectuals in the modern world. Lack of precision has been part of its appeal: to
speak of “the two cultures” is to convey regret, censure, and—since one is bold enough to name and appreciate a presumably unfortunate circumstance—superiority all at once.

Snow first used the famous phrase in 1956 as the title for an article in *The New Statesman*. The article provided the germ for his 1959 Rede Lecture at Cambridge University, *The Two Cultures and the Scientific Revolution*, which was subsequently printed in *Encounter* magazine in two installments. As soon as it appeared, the brief, avuncular work—in book form it fits comfortably into fewer than sixty printed pages and is full of men who “muck in as colleagues,” etc.—became a sensation on both sides of the Atlantic. The edition I have was published in 1961; by then it was already in its seventh printing. Its fame got an additional boost a year later when the critic F. R. Leavis published his attack on *The Two Cultures* in *The Spectator*. Originally delivered as the Downing Lecture at Cambridge, “Two Cultures? The Significance of C. P. Snow” is a devastating rhetorical fusillade. It’s not just that no two stones of Snow’s argument are left standing: each and every pebble is pulverized, the fields are salted, and the entire population is sold into slavery. Leavis spoke of “the preposterous and menacing absurdity of C. P. Snow’s consecrated public standing,” heaped derision on his “embarrassing vulgarity of style,” his “panoptic pseudo-categories,” his “complete ignorance” of history, literature, the history of civilization, and the human significance of the Industrial Revolution. “Snow is, of course, a—no, I can’t say that; he isn’t: Snow thinks of himself as a novelist,” Leavis thundered, but in fact “his incapacity as a novelist is … total”: “as a novelist he doesn’t exist; he doesn’t begin to exist. He can’t be said to know what a novel is.” It gets worse. Snow is “utterly without a glimmer of what creative literature is, or why it matters.” “[N]ot only is he not a genius,” Leavis concluded; “he is intellectually as undistinguished as it is possible to be.”

Literary London was stunned and outraged by Leavis’s performance (which was something of an official swan song, since he retired from teaching that year). A certain degree of rhetorical politesse still marked British literary journalism; Leavis had been the opposite of polite. In the weeks that followed, *The Spectator* printed more than thirty irate letters, many from eminent personages, most of them siding firmly with Snow. It was an extraordinary outpouring. One correspondent deplored Leavis’s “insincerity, incapacity and envy.” Lord Boothby, claiming that there was “not a single constructive thought in his lecture,” spoke of Leavis’s “reptilian venom.” Stephen Toulmin wrote that the lecture was “an insult to the audience and to Snow himself.” Other indignant commentators dismissed Leavis’s lecture as “ludicrously overdone,” “a demonstration of ill-mannered, self-centered and destructive behaviour,” or, more simply, “bemused drivelling.” The extreme reaction was partly a response to Leavis’s own extremity: Lionel Trilling, reflecting on the controversy in *Commentary*, summed it up when he spoke of the “unexampled ferocity” and “bad manners” of Leavis’s attack. In fact, Trilling agreed with much that Leavis had to say; but he could not abide the scorched-earth rhetoric: “it is,” he wrote, “a bad tone, an impermissible tone.” Perhaps so. But in the English response there was also a large element of snobbery: by 1960 Sir Charles was, well, Sir Charles: a member of the Athenaeum, a reviewer for *The New Statesman*, someone whom one knew. Thus Dame Edith Sitwell: “Dr. Leavis only attacked Charles because he
is famous and writes good English.” Charles, indeed.

The ruffled feathers of London’s intellectual elite make for an amusing footnote to the cultural history of the period. But the questions raised by The Two Cultures—and by Leavis’s searching criticisms of Snow’s position—are something more serious. It is not simply that the gulf between scientists and literary intellectuals (and the general public, too, of course) has grown wider as science has become ever more specialized and complex. Because of the extremely technical nature of contemporary scientific discourse — think, for example, of its deep reliance on abstruse mathematical notation—that gulf is unbridgeable and will only widen as knowledge progresses. The more pressing issue concerns the fate of culture in a world increasingly determined by science and technology. Leavis described C. P. Snow as a “portent” of our civilization because, in his view, Snow’s argument epitomized modern society’s tendency to trivialize culture by reducing it to a form of diversion or entertainment. For him, it was not surprising that The Two Cultures so captured the public imagination: it did so precisely because it pandered to the debased notion of culture championed by established taste. This year marks the thirty-fifth anniversary of Snow’s essay. As we look around the cultural landscape today, we see the debris of a civilization seemingly bent on cultural suicide: the triumph of pop culture in nearly every sphere of artistic endeavor, the glorification of mindless sensationalism, the attack on the very idea of permanent cultural achievement—in the West, anyway, the final years of the twentieth century are years of unprecedented material wealth coupled with profound cultural and intellectual degradation. C. P. Snow is hardly to blame for all this. He is merely a canary in the mine. But as such—as a symptom—he still has much to tell us.

Perhaps the first thing that one notices about The Two Cultures is its tone, which vacillates wildly between the cozily anecdotal and the apocalyptic. On the one hand, we find Snow busy meeting the physicist “W. L. Bragg in the buffet on Kettering station on a very cold morning in 1939.” Without the narrative prop of High Table dinner conversation at Cambridge, Snow would be lost. On the other hand, he insists that the problem he has outlined is a “problem of the entire West.” “This is,” Snow writes toward the end of his lecture, “one of the situations where the worst crime is innocence.” In some “afterthoughts” on the two-cultures controversy that he published in Encounter in 1960, Snow refers solemnly to his lecture as a “call to action.”

But what, exactly, is the problem? And what actions does Snow recommend we take? At one moment it’s nothing much; the next it’s everything and more. There is that “gulf of mutual incomprehension” between scientists and “literary intellectuals,” of course. But it soon turns out that there are also the “three menaces” of nuclear war, overpopulation, and the “gap” between rich and poor nations. (There are many gulfs, gaps, and chasms in The Two Cultures; it sometimes seems that Snow’s entire argument has fallen into one of of them.) On one page the problem is reforming the schools so that “English and American children get a reasonable education.” Well, OK. But a few pages later the problem is mobilizing Western resources to industrialize India. And Africa. And Southeast Asia. And Latin America. And the Middle East—all in order to forestall
widespread starvation, revolution, and anarchy. Snow envisions tens of thousands of engineers from Europe and North America volunteering “at least ten years out of their lives” to bring the “scientific revolution” to the underdeveloped parts of the world. Reality check: in Snow’s mind, the Soviet Union was way ahead of the West in dealing with these vast imponderables. This is, he says, partly because the Russians have a “passionate belief in education.” But it is also because they have a “deeper insight into the scientific revolution than we have, or than the Americans have.” That explains why they managed their own economy so brilliantly, you see.

If all this seems like a terrible muddle, it is. In truth, there are three sorts of problems in The Two Cultures: trivial, non-existent, and misunderstood. Some, such as the famous gulf, gap, or chasm between scientists and literary intellectuals, are both trivial and misunderstood. Sure, it would be nice if “literary intellectuals” knew more science. But the gulf, gap, chasm that Snow deplores will never be bridged—from this side of the gulf, at any rate—by anyone lacking a good deal of highly specialized training. And, pace Snow, it’s not at all clear that the gulf really matters.

As several critics have pointed out, Snow’s terminology can be exceedingly slippery. He begins with a dichotomy between the world of literary intellectuals and the world of physical scientists. (And he eschews anything more elaborate: “I have thought a long time about going in for further refinements,” Snow writes, “but in the end I have decided against it”: No wonder the biochemist Michael Yudkin, in a perceptive article on The Two Cultures, noted that Snow often seems “more concerned with the number two than the term ‘culture.’ ”) But in order to further his gulf-gap-chasm thesis, Snow is soon using “literary intellectual” interchangeably with “traditional culture.” This fusion yields the observation that there is “an unscientific,” even an “anti-scientific” flavor to “the whole ‘traditional’ culture.” What can this mean? Aristotle, Galileo, Copernicus, Descartes, Boyle, Newton, Locke, Kant: are there any more “traditional” representatives of “the whole ‘traditional culture’”? There’s not much anti-scientific aroma emanating from those quarters. The real burden of Snow’s thesis was accurately summed up by Leavis: “there are the two uncommunicating and mutually indifferent cultures, there is the need to bring them together, and there is C. P. Snow, whose place in history is that he has them both, so that we have in him the paradigm of the desired and necessary union.”

At the beginning of his lecture, Snow affects a generous even-handedness in his attitude toward scientists and literary intellectuals. There’s a bit of criticism for both. If literary types tend to be quite appallingly ignorant of even rudimentary scientific concepts (Snow seems astounded that his writer friends cannot define such basic concepts as mass, acceleration, etc.), then it turns out that many scientists are unacquainted with the novels of Charles Dickens. But this show of even-handedness soon evaporates. The “culture” of science, Snow tells us, “contains a great deal of argument, usually much more rigorous, and almost always at a higher conceptual level, than the literary persons’ arguments.” Literary intellectuals are “natural Luddites”; scientists “have the future in their bones.” This is a formulation that Snow likes enough to repeat: “If the scientists have the future in their bones,” he writes, “then the traditional culture responds by wishing the
future did not exist.” To clinch his argument that literary intellectuals (a.k.a. “the traditional culture”) “wish the future did not exist,” Snow holds up … George Orwell’s *Nineteen Eighty-four*—as if that harrowing admonitory tale could have been written by anyone who did not have a passionate concern for the future!

Snow is especially impatient with the politics of “the traditional culture.” He quotes with approval an unnamed “scientist of distinction” who opined that literary intellectual writers tended to be “not only politically silly, but politically wicked. Didn’t the influence of all they represent bring Auschwitz that much closer?” In this context, Snow explicitly mentions Yeats, Wyndham Lewis, and Ezra Pound. But his indictment is actually much broader: “nine-tenths” of the great literary figures of the early twentieth century (he specifies the period 1914–1950) are on his reckoning politically suspect. The “culture” of science, on the contrary, is optimistically forward-looking. But not, Snow hastens to add, shallowly optimistic. Scientists, too, appreciate the tragic nature of human life—that each of us “dies alone.” But they are wise enough to distinguish, with Snow, between the “individual condition and the social condition” of man. There is, Snow writes, “no reason why, just because the individual condition is tragic, so must the social condition be.” The prospect of social improvement (what Snow, echoing a character from *Alice in Wonderland*, picturesquely calls the prospect of “jam tomorrow”) is a galvanizing force that allows the individual to transcend, or at least forget, his private destiny.

Snow’s argument operates by erasing or ignoring certain fundamental distinctions. He goes to a literary party, discovers that no one (except himself) can explain the second law of thermodynamics, and then concludes triumphantly: “yet I was asking something which is about the equivalent of *Have you read a work of Shakespeare’s*?” But, as Leavis notes, “There is no scientific equivalent of that question; equations between orders so disparate are meaningless.” The second law of thermodynamics is a piece of specialized knowledge, useful or irrelevant depending on the job to be done; the works of Shakespeare provide a window into the soul of humanity: to read them is tantamount to acquiring self-knowledge. Snow seems oblivious to this distinction. A similar confusion is at work in Snow’s effort to neutralize individuality by assimilating it to the project of “social hope.” That may sound nobly altruistic. But, as Leavis asks, “What is the ‘social condition’ that has nothing to do with the ‘individual condition’?”

What is the “social hope” that transcends, cancels or makes indifferent the inescapable tragic condition of each individual? Where, if not in individuals, is what is hoped for … to be located? Or are we to find the reality of life in hoping for other people a kind of felicity about which as proposed for ourselves (“jam,” Snow calls it later—we die alone, but
Leavis here exposes the central philistinism, the deeply anti-cultural bias, of Snow’s position: the idea that the individual is merely a fungible token, a representative type, whose ultimate value is purely a function of his place in the tapestry of society.

In the end, Snow is a naïve meliorist. For him, a society’s material standard of living provides the ultimate, really the only, criterion of “the good life”; science is the means of raising the standard of living, ergo science is the arbiter of value. Culture—literary, artistic culture—is merely a patina or gloss added to the substance of material wealth to make it shine more brightly. It provides us with no moral challenge or insight, because the only serious questions are how to keep increasing and effectively distributing the world’s wealth, and these are not questions culture is competent to address. “The upshot” of Snow’s argument, Leavis writes, “is that if you insist on the need for any other kind of concern, entailing forethought, action and provision, about the human future—any other kind of misgiving—than that which talks in terms of productivity, material standards of living, hygienic and technological progress, then you are a Luddite.”

It is worth pausing at this point to note that Leavis grants Snow’s subsidiary argument that improvements in scientific education would be a good thing. Leavis is not “anti-scientific.” Of course “standards of living, hygienic and technological progress” are important. None of that is at issue. Nor is Leavis in any way suggesting that one should “defy, or try to reverse, the accelerating movement of external civilisation … that is determined by advancing technology.” Barring a world-extinguishing catastrophe, the progress of science is inexorable. Leavis accepts that. What he denies is that science is a moral resource—he denies, that is to say, that there is any such thing as a “culture” of science. Science tells us how best to do things we have already decided to do, not why we should do them. Its province is the province of means not ends. That is its glory—and its limitation.

This is something that the editors of The Spectator grasped much more clearly than the many correspondents who wrote in to protest about Leavis’s essay. One word that is missing from Snow’s essay, they note in an unsigned editorial, is “philosophy”— “that effort to impart moral direction that was found in the best nineteenth-century English writers.” Chief among “the best nineteenth-century English writers” was Leavis’s own model and inspiration, Matthew Arnold. It is one of history’s small but delicious coincidences that in 1882, nearly eighty years before C. P. Snow’s Rede Lecture, Arnold was chosen for that honor. His Rede lecture—“Literature and Science”—was itself a kind of “two cultures” argument. But his point was essentially the opposite of Snow’s. Written in response to T. H. Huxley’s insistence that literature should and inevitably would be supplanted by science, Arnold argued that, “so long as human nature is what it is,” culture would continue to provide mankind with its fulcrum of moral understanding.

The tenor of Arnold’s lecture could not have been more different from Leavis’s. “The tone of tentative inquiry, which befits a being of dim faculties and bounded knowledge, is the tone I
would wish to take,” Arnold noted with un-Leavisite modesty. But his argument anticipates
Leavis in striking detail. Both are concerned with what Leavis calls “the cultural consequences of
the technological revolution.” Both argue passionately against the trivialization of culture, against
what Arnold dismissed as “a superficial humanism” that is “mainly decorative.” And both looked
to culture to provide a way of relating, in Arnold’s words, the “results of modern science” to “our
need for conduct, our need for beauty.” This is the crux: that culture is in some deep sense
inseparable from conduct—from that unscientific but ineluctable question, “How should I live my
life?” Leavis’s point was the same. The stunning upheavals precipitated by the march of science
and technology had rendered culture—the arts and humanities—both more precarious and more
precious. Leavis understood that the preservation of culture—not as entertainment or diversion
but as a guide to “conduct”—was now more crucial than ever. If mankind was to confront the
moral challenges of modern science “in full intelligent possession of its humanity” and maintain
“a basic living deference towards that to which, opening as it does into the unknown and itself
unmeasurable, we know we belong,” then the realm of culture had to be protected from the
reductive forces of a crude scientific rationalism.

The contemporary relevance of this argument can hardly be overestimated. We live at a
moment when “the results of science” confront us daily with the most extreme moral
challenges, from abortion on demand and the prospects of genetic engineering to the more
amorphous challenges generated by our society’s assumption that every problem facing mankind
is susceptible to technological intervention and control. In this situation, the temptation to reduce
culture to a reservoir of titillating pastimes is all but irresistible. Rock music, “performance art,”
television, video games (not to mention drugs, violence, and mindless sex): we are everywhere
encouraged to think of ourselves as complicated machines for consuming sensations—the more,
and more exotic, the better. Culture is no longer an invitation to confront our humanity but a
series of opportunities to impoverish it through diversion. We are, as Eliot put it in Four Quartets,
“distraught from distraction by distraction.” C. P. Snow represents the smiling, jovial face of this
predicament. Critics like Arnold and Leavis offer us the beginnings of an alternative. Many people
objected to the virulence of Leavis’s attack on Snow. But given the din of competing voices, it is a
wonder that he was heard at all.

Notes

1. *The Two Cultures* was recently reissued by Cambridge University Press, with a new introduction by
Stefan Collini (107 pages, $9.95 paper). This edition also includes Snow’s essay “A Second Look,” his
“afterthoughts” on the two-cultures controversy. Go back to the text.
Among other things, Snow’s lecture illustrates the fact that a mountain of confusion can be built from a grain of truth. For there is an ingredient of irrationalism in Western culture that regularly manifests itself in anti-scientific biases of one sort or another. Certain varieties of romanticism belong here, as do many less agreeable phenomena. But Snow, while he dances around this issue—it is what gives his whole “two cultures” thesis a superficial plausibility—never really comes to terms with it. In contemporary academic culture, a widespread suspicion of the achievements of science—often extending to an outright rejection of the idea of factual truth—can be seen in many radical movements and “theories.” “Cultural constructivism,” deconstruction, radical feminism, and many other fashionable ists and isms are aggressively anti-empirical. Paul R. Gross and Norman Levitt expertly anatomize these disparate phenomena in Higher Superstition: The Academic Left and Its Quarrels with Science, forthcoming this spring from the Johns Hopkins University Press. They show that this new hostility to science is part of a more general hostility to Western values and institutions, an anti-Enlightenment hostility that “mocks the idea that … a civilization is capable of progressing from ignorance to insight.” Go back to the text.

He also seems oblivious of the extent to which the second law of thermodynamics has impressed itself—vividly if not always accurately—upon the imaginations of modern artists, philosophers, and theologians via the concept of entropy: the thought that the universe is relentlessly “winding down” has been deeply (yet also productively) unsettling. Go back to the text.