

Men of Science—and Conscience

PLATO said: knowledge is virtue. Bacon said: knowledge is power. The “is” in each of these propositions, of course, means “ought to be.” Plato knew very well that knowledge could be power, but he thought this a dangerous prospect: nothing less than a temptation to the wicked, in fact—the very proof of their wickedness lying in their lust to use knowledge instead of simply contemplating it. Bacon, on his part, with two millennia of Platonism behind him, did not have to be told that knowledge could be virtue, the extinction of desire in the vision of natural truth. But he decided against virtue and in favour of happiness: natural truth should yield to human desires, not vice versa. Thus, from the adoration of nature, man passed on to its conquest. If the adventure has ended up with our not being very happy, we can take some consolation in the fact that the Greeks weren’t very virtuous, either.

One noteworthy result of this transformation of man’s ideals has been the reversal in the notion of “freedom of science.” The Greek scientist was free when he sat quite still and thought; had he been pushed into a laboratory or had he ever been obliged to publish his thoughts, he would have felt himself in slavery. With the modern scientist, the situation is obviously different, to an extent that needs no elaboration. Which would seem to imply at least that the idea of freedom is capable of embracing quite different meanings.

THIS implication confronted the 120 eminent scientists and scholars—among them Arthur Compton, James Franck, Lise Meitner, Max von Laue, Michael Polanyi, Sidney Hook, Joseph Pieper, Eugene Rabinovitch, John R. Baker, Cyril Darlington, and others—from 19 countries who, at the joint invitation of the Congress for Cultural Freedom and the University of Hamburg, assembled in Hamburg

at the end of last July to look into the matter of “Science and Freedom.” It was a surprising demonstration of *engagement* on the part of a scientific community that too often scorns to bother with such imprecise concepts as freedom. At Hamburg they worried the idea from all sides, very much aware that scientific freedom, in the modern sense, was not something to be taken for granted. It had been won long ago, by hope; it could now be lost, by despair; its case had been reopened and had to be pleaded. Nor was the jury so well disposed as once it had been. The city of Hamburg put out flags to welcome its visitors, but also eyed them as if they might at any moment walk across the surface of the Alster. The relation of the modern public to science—as Denis de Rougemont pointed out in his opening address—is in any case ambivalent, with science presenting itself as an irritating paradox: highly systematic yet always incomplete; compelling of belief yet upsetting of beliefs; certain in its conclusions yet sceptical in its method. The citizens of Hamburg had, in addition, more tangible grounds for ambivalence, best summed up by a taxi-driver who, clearly flattered at the chance of guiding a *Nobelpreisträger* through the city, smugly recounted the marvels of reconstruction which had almost entirely restored Hamburg to its pre-war self (patinated roofs and all!), while confessing that the transportation of such a customer tempted him to redress some painful war memories with reckless driving—“You wouldn’t be missed, not by the rest of us!”

IT turned out—to no one’s astonishment, it should be stated—that it was impossible, in the four days the conference lasted, to compose an adequate brief for scientific freedom. There were simply too many lawyers for the defence. Metaphysician and pragmatist, theologian and positivist—all could plead effectively, but

obviously not at the same time. Still, everyone was pleased that so many persuasive arguments were forthcoming. An old cause does not necessarily need new arguments—especially if it is under attack by even older ones! Perhaps it needs only a bit of good luck, a shift in the trend of events, a slight movement of the *Zeitgeist*, for self-confidence to be restored.

There was no such conflict of counsel when it came to the freedom, not of science, but of scientists. This problem is simplified by the fact that, while a Platonic theory may challenge a Baconian one, there are no Platonic scientists in our day and age. All the real live scientists happen to be Baconian. These men want to follow their own lines of research, publish their findings, discuss freely with their colleagues, including those in other countries. If they live behind the Iron Curtain, they can do none of these things—for, while the Communists agree that knowledge is power, they are persuaded that they are already in essential possession of both, and that the duty of scientists is merely to make this possession more secure. Therefore, when the conference sent a message to the scientists of the U.S.S.R., looking forward to the day when they could sit down as “free men” at such a meeting as this, it was not inhibited by philosophical quibbles.

Similarly, the sessions devoted to the fate of Soviet science were far more animated than those devoted to freedom-in-general. In a way, this was unexpected. Usually, this subject is cradled in clouds of boredom. One can even say that the ability to make atrocities boring is totalitarianism’s most insidious weapon. These atrocities appear so hopeless, so irremediable that the living victims themselves are regarded as being, in a sense, already dead—at most, little more than posthumous emanations. Consequently, there is almost always an artificial fervour, a contrived intensity, in the protest. In Hamburg, the bonds that link the scientific fraternity all over the world were able to excite an emotion that the plain bonds of humanity are too often impotent to provoke. At one point, when a physicist who had lived in the Soviet Union described how Soviet scientists cheat their tormentors by presenting last year’s work as next year’s plan, his staid audience could not repress a murmur of delight.

KNOWLEDGE is power. But so is the state. The relation of these two powers to each

other is so bedevilling that a history of Western civilisation could be written around the problem. According to one set of scholars, the reason why the wise men of Greece prized *theoria* and scorned *praxis* was their fear of the way that wicked governments would exploit practical learning. Other scholars dispute this interpretation; indeed, they make up a majority of the profession. But one felt that an uncommonly large proportion of the scientists at Hamburg were ready to lend an ear to the minority. They were frightened of the state—even of a good one.

In most of the countries of the world today more than half of the funds for basic scientific research are supplied by the state. This makes scientists nervous—more nervous, actually, than the facts of the case seem to warrant. On this side of the Iron Curtain, the government’s paying the piper has not yet led to its calling the tune. Even in the United States, where it is the armed services themselves that give to the scientists the public’s money, little has so far happened to cause any viewing-with-alarm. At the Institute for Nuclear Studies in Chicago, the conference learned, scientists were free to establish their own research programmes, publish their findings, talk about them to colleagues (or to anyone else they could buttonhole), and take visitors on tours of their laboratories. This is not the result of any selfless commitment to truth by admirals of the fleet or generals of the air force, but rather of the law of supply and demand. The number of first-rate brains in any particular field being few, and the demand exceeding the supply (with the universities and private industries competing with government), the scientists are in a strong bargaining position. So it is that, in the United States, the entire declassification procedure, by which work of potential military value is sifted and eventually tossed into the open, was devised by the scientists themselves.

However, even the law of supply and demand can be abrogated in the interest of some higher law—“Aryanism,” for example, or dialectical materialism. Governments and social orders have a habit of changing, in this century usually for the worse. And what could scientists do about it? How could they make certain that their work—if not themselves—would not in the future be made to serve strange masters and odious ends? The scientists at Hamburg were careful to affirm the dominion of conscience

and morality over the scientific endeavour. But the constitution of this dominion was left vague. Some felt that it required political activity by the scientist; but no one seriously believed that scientists in politics could do what politicians in politics could not. Others called for a critical detachment from political passions; but they could not explain how this would affect political events for the better. In the end, the conference took refuge in an "enlightened public opinion," and one famous pragmatist experienced a slight Greek deviation when, in paying tribute to Mayor Ernst Reuter of Berlin (who turned out to be a former student of the great neo-Kantian, Hermann Cohen), he looked forward to the day when philosophers would be mayors.

ABOVE all, what this conference made clear was the impossibility of solving the major practical issues plaguing modern science (the metaphysical ones could be assumed to be eternal, anyway) while the world of politics remained half-slave, half-free. It is all well and good for conscientious scientists to worry about the possible misuse of the power they have conjured up. But as long as one of the world's great empires is obviously intent upon misusing it, there is nothing left to do but conjure up more power, and still more, in the hope of frustrating this intention—but also in the knowledge that this "more" would soon be

the common property of friend and enemy, and that they would have to renew their efforts without cease. The labour of Sisyphus—and so Baconian meets Greek, in tragedy. As one speaker put it: "Try as we may to follow other paths, we dare not stay our hands from the forging of weapons ideally adapted to our own destruction."

One could dream, however: and scientists do, like the rest of us. They dream, in the words that an American atom physicist uttered at Hamburg, of a new Guy Fawkes day, "when men in unfamiliar costumes, carrying stylised and decorated boxes which symbolise Geiger counters, pretend to look under factories for atom bombs, and children dance in the street for joy, and nobody but wizened old university professors know how the custom originated in the barbaric past. . . ."

Under the impact of these words, the city of Hamburg was transformed for a moment into a magic mountain. Then, as the scientists prepared to leave, pleasantly flushed with the vigour of discussion, flattered at the genial hospitality which the city had extended to them, praising the skill and sobriety with which the conference had been organised—then they noticed that the flags were at half-mast: it was the tenth anniversary of the disastrous Allied bombing of Hamburg. And the coarse light of day rose to blur the dream; but not, surely, to dispel it.

Irving Kristol

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AMERICAN DICTION v. AMERICAN POETRY

IN his preface to *American into English*,* Mr. Carey relates how for the past seven years he has been mainly occupied with correcting proofs of some hundreds of books, many of them American. Here he has collected and analysed examples of current American "parlance" (he does not write "usage") which would have to be altered in order not to look strange in English. Mr. Carey avoids slang and "sheer journalese." He selects that which he considers to have "become a part of normal American parlance." Anyone who reads a good many American books will agree that his examples are well chosen.

Yet one would expect "normal American parlance" to have entered into modern American poetry. So, after reading Mr. Carey, it was with curiosity that I turned to the *Selected Poems* of Wallace Stevens.† Stevens is certainly, as his publishers say, "accounted an elder laureate," but all the same he is a poet whom most English critics would consider American to the point where his imagination even baffles the English reader. Yet whatever the grounds of this American quality may be, they are certainly not "American parlance." In fact, Mr. Stevens, like Mr. Allen Tate, Mr. Robert Lowell and Mr. Randall Jarrell—three of the most distinguished living American poets—manages to be very American whilst eschewing "American parlance."

In fact, as regards diction, Mr. Wallace Stevens has far more in common with a recently published and most promising English poet—Miss Elizabeth Jennings‡—than with the examples of dropped conjunctions, added prepositions, and other features which strike English eyes as odd, and which Mr. Carey cites.

* *American into English*. By G. V. CAREY. Heinemann. 6s.

† *Selected Poems*. By WALLACE STEVENS. Faber. 12s. 6d.

‡ *Poems*. By ELIZABETH JENNINGS. Fantasy. 5s.

Here is an example of Mr. Stevens' diction in one of his more recent poems, "It Must be Abstract":

Begin, ephebe, by perceiving the idea
Of this invention, this invented world,
The inconceivable idea of the sun.

You must become an ignorant man again
And see the sun again with an ignorant eye
And see it clearly in the idea of it.

Never suppose an inventing mind as
source
Of this idea nor for that mind compose
A voluminous master folded in his fire.

How clean the sun when seen in its idea,
Washed in the remotest cleanliness of a
heaven
That has expelled us and our images.

and here are some lines from Miss Jennings' "Afternoon in Florence":

Light detains no prisoner here at all
In brick or stone but sends a freedom out
Extends a shadow like a deeper thought,
Makes churches move, once still,
Rocking in light as music rocks the bell.

So eyes make room for light and minds
make room
For image of the city tangible.
We look down on the city and a dream
Opens to wakefulness, and waking on
This peace perpetuates this afternoon.

The difference here is certainly not of American from English parlance. In fact the main difference between Miss Jennings' and Mr. Stevens' idiom is one of approach. Mr. Stevens fills in an abstraction with particulars (the empty idea with the plenitude of the sun) whereas Miss Jennings draws abstractions out of the particular afternoon in Florence.