Science: Its Place in AAAS

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When a journal of science reaches a certain age, intimations of continuity come naturally and must be put down swiftly. Longevity is no guarantor of continuity. On the whole, editors grasp this truth better than publishers, for the editor knows that life is unfair and that adversity crouches close by. A publisher, on the other hand, assumes that a journal that has had 5000 live births and is still going strong is likely to be around a while longer if he has enough sense to let the editors alone, and he sees his chores as those of repelling forays on editorial freedom, ministering to aggrieved authors and readers, and managing controversy.

Responsibility

Adaptation and a capacity to come to terms with change are characteristics of scientific publishing no less than of consumer publishing. Qualitatively, there are necessary differences. A journal of science must not pander, nor court what is called favor. It is not, nor should it be, a mass market product. Its legitimacy, even after 100 years, arises not from longevity but from its linkages with the method of scientific responsibility through which accountability is enforced by peer review. Even with that constraint, change and adaptation have ample space within which to work, not simply to retain readership but to enhance and develop the journal's influence.

This matters very much. Influence is not another term for power. It affects choices and outcomes but does not dictate them. What appears in *Science* on the lot of Sakharov and Orlov seems to produce no visible effect on the Soviet authorities. On the other hand, when *Science* concerns itself with violations of human rights of scientists at the hands of the Argentine authorities, no one is left in doubt that pain has been inflicted and felt. Not the least of the problems of the editor and publisher of a science journal is how to conserve this influence and ration it. The fact is that *Science* is a more potent platform then we appreciate, and its privileges are to be exercised judiciously. Misuse of the journal's voice could drain its reserves of influence dangerously. If we have a brief for employing this influence, it runs to proper concerns for science, its uses, its effects, its transnational community, and a concern for where the conscience of the world—through science—is tending.

Science is the journal of the AAAS, a fact that bears directly on both the viability of the Association and the roles of the journal. There is more to this relationship than meets the eye. What is beyond argument is that *Science* is AAAS's responsibility. As AAAS sees to the care and tending of *Science*, so it is ultimately accountable for its contents and opinions. Pulling in the other direction are the dictates of editorial and scientific independence, in the absence of which the journal could hardly lay claim to distinction. Institutional responsibility and editorial independence are not always chummy neighbors. The archives show that editors have been known to resign rather than knuckle under to officers of the Association on matters of editorial principle, and in so doing they have made their point. As matters now are arranged, *Science* is brought out each week by its editors with neither prior review nor restraint by the high command of the AAAS. If officialdom is vexed by what it reads, or by the absence of what it thinks it should have read, sound and fury may have their day but *Science* goes on under the ground rules. The reason is not hard to find. The officers and editors are not far apart on the essentials, with the result that the noise is contained at the margins.

Science Journalism

In today's burgeoning industry of science journalism, electronic as well as print, *Science* increasingly takes on the appearance of the laced and corseted great-grandmother who is very sure of her position and, despite her great age, entirely capable of keeping it. In the journal's 100th year, the Hearst publishing empire made the tactical mistake of testing its geriatric reflexes. They did so by changing the cover logo of *Science Digest* in a manner that bannered the word "Science" and shrunk the word "Digest." Handing down her decision on AAAS's suit for injunctive relief, Federal Judge Joyce Hens Green held for the AAAS, and opined that the Hearst product "differs from *Science* as a Philip Roth novel differs from a Shakespeare play, as Bo Derek does from Katharine Hepburn." Justice seldom has been rendered with as much artistic and literary grace. Yet, the discovery of the public's growing interest in science is a very good thing, and AAAS has no quarrel with commercial publishers or sponsors of programs focused on science. The day may come, however, when vulgarization gets out of hand and if it does come, the scientific community will have little choice but to arm itself for battle. Meanwhile, AAAS intends to set a standard of scientific accuracy for the popular market with its general-audience magazine, *Science 80*.

The decision to field a magazine for an educated but nonscientific readership was hardly impetuous. For more than a decade, AAAS has been mandated to foster the public understanding of science. It is a very large order. There is more than one public, and each has different characteristics. In its total terms, this problem is close to being beyond any resources that are likely to be available. If AAAS was to address it, the choice of strategy had to be grounded in a strong and proven capability. Not surprisingly, this turned out to be *Science*, whose Research News editor was in fact gestating a concept for a new kind of magazine. The approach was to be decidedly different from the successful formula of *Science*, but the standard of authenticity would come very close. And the good name of both *Science* and its shepherd, AAAS, would provide legitimacy and assurances of quality. We would not solve the entire problem of public confusion and anxiety about science and technology, but we might reach and inform a sizable population. Equally, the magazine might help to shore up the timbers of science education.

Controversy

The place of controversy in *Science* is a much-argued matter, though the history of science would suggest that progress has been propelled by controversy. What is actually at issue, however, is po-

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litical controversy. There are those among us who are resigned to having sociopolitical debates at the AAAS annual meeting, yet take umbrage at the use of *Science* as a medium for pursuing such matters. Their position is disputed by the substantial cohort of readers who take *Science* mainly to find out, from one week to the next, what political storms are lashing the beaches of science. Considering how both science and its applications figure centrally or tangentially in most of society's dilemmas, it would become *Science* poorly to pose as a nonaligned and faceless party before contemporary events and forces, as though knowledge and its sires had no values and nothing to say. On the whole, *Science* seems to have dealt with the difficulties at least moderately well, since the publisher's mail is roughly equally divided between those who indict *Science* for being pronuclear and those who can "prove" that its editorial slant is antinuclear. There are some impatient readers who would have *Science* take a far more militant stand in denouncing violations of human rights of scientists, even as Soviet censors are working overtime to rid the journal of its persistent thrusts on behalf of harassed dissidents. Whatever it does, *Science* plays no political favorites at home or abroad. The good, the bad, and the simply foolish in every administration, and in the scientific research enterprise as well, will find their way into the journal. Its News and Comment department was a first in the field of science journalism, and it scores its newsbeats with as much professional pride and independence as will be found anywhere. That is the way it should be, but without rashness or a bent for muckraking.

Should *Science* shape and lead, to the extent that it can, the evolution of policies for science and technology? Or is its role the more modest one of reporting and commenting on policies as others shape them? Perhaps the answer depends on the effectiveness and the intentions of the nation's policy machinery and its managers. As matters have been arranged, by both pragmatism and drift, government has most of the leverage on policies for science and technology, while the other "partners," universities and industry, are minor stockholders. Although this arrangement may be serviceable enough when policy management is not seriously stressed, it can be quite another matter as the national policy system settles into a prolonged period of crisis accumulation. Then policies for science and technology undergo a mutation that is driven by government's intentions and strategies. When, to carry the point a little farther, the government's process lacks a workable capability for strategic policy planning, science and technology are conscripted into the service of expediency. Independence of thought and inputs to goals, strategies, and means become quite chancy in these circumstances, as the scholarly world discovered during the Vietnam years. Yet that was a single, though massive, crisis of policy, and different in terms and possibilities from a multicrisis syndrome driven not from within but from without and prolonged over time.

It may not be certain that the United States is headed for such troubled waters, but to speak softly of a sea change qualifies as understatement. Relying in the next decades on a systemic political technology that shows so much evidence of being flawed, and taking for granted a seat for science at the policy-making table, is not a prospect that invites confidence. The central problem facing government, though it may not yet have caught its attention, will be that of managing surprise. Our political technology now provides very poorly for this, with the result that government finds itself preoccupied with managing crisis. It takes little effort to appraise the budding surprises that are strewn about the world, in the Third World especially. They nest in disappointed expectations, in hopeless debt burdens, in subversion, in terrorism, in hunger, in anger, and in shrinking living space. Violence is an element in the strategy of political surprise, and it is cultured in smoldering grievances that invite opportunism and mischief. The surprise factor, as it acquires strategic importance, cannot be dismissed as mere discontinuity. It is much more: it is evidence of the mature play of rogue forces and methods aimed at stressing an overstructured and overloaded Western value system. If surprise is to be managed even halfway adequately, participation of scientists and their institutions is plainly in the cards.

Taking Positions

For AAAS and its journal *Science*, the question is not whether political issues are within or beyond their brief. Instead, the question is which political issues are germane to that brief and which require that the brief be stretched to justify addressing them. A heated argument can still be raised as to whether the fate of the Equal Rights Amendment is AAAS's proper business. But it is much clearer that the politics of world hunger and starvation are central to the scientific enterprise for at least two reasons: first, as Clifford Wharton has pointed out, knowledge itself—theory, invention, discovery, technology—together with human skills must be pooled globally if the problem is to be solved, and second, the relative indifference of the advanced nations arouses the conscience of science. Not far removed from similar centrality is the issue of technological terror as expressed in the complexities of nuclear arms control and disarmament, where once again knowledge and scientific conscience bear heavily on the course of policy management. For issues that cut as deeply as these, the resources of AAAS and its journal should be open to the use of the scientific community. The issues may at times defy clear distinctions between those that are intrinsically scientific and those that are intrinsically political. Some will be hybrids, but no less appropriate for the involvement of scientists. Still others will be in a no-man's-land where conscience alone governs; an example would be the appropriateness of mobilizing scientists for human rights or for American ratification, after decades of stewing, of the Genocide Treaty. With all this, AAAS is left to wrestle with the proposition laid down by Philip Handler, who does not mince words: "Scientists best serve public policy by living within the ethics of science, not those of politics" (*1*). In an era when most things are colored gray, that takes considerable doing.

These and other dilemmas frame the operative question as to what AAAS's function and role should be, under the rubric of advancing science. Too much scrambling in the whirlpool of contemporary social and political turmoil, on issues at the fringes of scientific responsibility, would carry AAAS far from its center of gravity. A hard and fast policy of strict germaneness to "advancing science" would mean accepting narrowness and noninvolvement in most of the action and passion of the times—opting out. Between these extremes, the problem comes down to matching the choice of issues with the competences and resources that are at hand. Taking positions merely because an issue or a controversy has arisen, without a sufficiency of knowledge, will not do. But argument from strength where we can be sure of strength, on issues that are not trivial, can advance both science and the context on which its advancement and its continuity depend profoundly.

References

1. P. Handler, *Science* **208**, 1093 (1980).