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Peer Review Revisited

Has the peer review system performed well or poorly as a method for helping government research administrators to ration research support? What can be said for its reliability and objectivity? Has peer review, over the years, tended to go stale? Have administrators used it so much as a crutch that their own judgment is clouded? Is it enough to know that research has scientific merit but not whether it has social value and merit? Some light may be shed on these and other matters when the Symington subcommittee of the House of Representatives turns its attention to the peer review system.

An odor of sanctity surrounds peer review. Rather too much has been claimed for it, considering how human and potentially fallible it is. Stripped of its elegance, it is simply a sensible arrangement for enlisting volunteer referees to call balls and strikes on proposals pitched to the funding agencies. Its credibility and durability rest on the integrity and responsibility of the referees. That in itself is no small thing, and indeed is the center beam which holds up the house of science. From this standpoint, peer review is a proxy for assaying the standards of the scientific community.

The Congress apparently is troubled as to how sensitive peer review is to considerations of public taste, concern for how public funds are spent, and equitable distribution of research awards. With this goes concern for the public accountability of the peer review machinery, which some think to be an insider system aimed at keeping out the unprivileged. All these questions need to be flushed into the open and answered by the evidence. That is the function of legislative oversight.

When all is said and done, peer review is likely to emerge with good marks. This is not to say that it has been perfect, or that it does not need some new premises. Peer review is a form of insurance on which administrators have relied as one of the stages in making choices. It does not preempt the judgment of administrators; neither should it intimidate them nor excuse them from being accountable. But bureaucratic life, these days, puts a larger burden on peer review than it was ever meant to carry. The sheer volume of proposals constitutes a tidal wave which overwhelms the agencies' reviewing process and brings it close to rote and insensitivity.

Some corrections to the peer review system probably are in order. The views of referees should be a matter of record and shared candidly with the originators of the research proposals, but the identities of the reviewers should be held in confidence. The practice of permitting potential grantees to nominate qualified reviewers for their proposals is understandable up to a point, but it has connotations of conflict of interest. If the selection of "peers" were to include others than field specialists, considerations of the social value of the research might, with profit, be injected into the criteria of choice from the start.

Beyond this, one is troubled to know whether peer review stacks the deck against younger and nonestablishment scientists whose credentials are no match for those of more imposing competitors. If the system shuts out the bright beginners and independents in order to ration scarce support only to scientists whose reputations are already made, we will come to regret it.

Peer review has its advocates and its critics. Its profound merit is that it broadens and diffuses the process through which government makes up its mind. That alone goes far to commend it. If government can learn that the world will not come to a bad end when decision-making is decentralized and made participative, something important will have emerged from peer review. As the Congress takes up the matter, more is at issue than a summary judgment. The real questions go to the vitality, the design, and the right uses of peer review as a bridge over the troubled waters of science and its relations with government.—WILLIAM D. CAREY