

REFEREING POLICY: AGAINST ANONYMITY

The article by David Lazarus (October 1989, page 57) on the recent court decision upholding the confidentiality of referees' comments is quite disturbing. It crows over a victory for a principle that is not clear-cut and may not even be necessary.

I am against the confidentiality of comments by journal referees. Such anonymity has, I have seen many times, allowed reviewers to make snide remarks about the work at hand, the stupidity of the author and the waste of the reviewer's time. Such unnecessary actions are simply means by which small minds comment on work they are often jealous of.

A referee has the responsibility to judge a work fairly, decline to review work that is not in his field of competence, comment with an attitude of helpfulness and without rancor, and either do his best to aid the author to improve the paper for publication or point out fairly and with facts the reasons why it is not fit for publication.

When one of my papers was reviewed by an anonymous referee, I was so intrigued by the helpful comments (which showed that I had done some things incorrectly) that I told the editor I had guessed at the identity of the referee from his handwriting and asked the editor to confirm it. He did, I called the referee, and I spent an instructive and highly beneficial hour discussing the paper with him. He did more to improve the paper than anyone else who had reviewed it.

I worked in the US Geological Survey for over 32 years and participated heavily in the formal mechanism of "colleague review" of Survey scientists' manuscripts. All reviewers were known to the authors, and I never heard a colleague object to an author's knowing that he was a reviewer.

The American Geophysical Union has as its motto "Unselfish Cooperation in Research." It has begun to publicize the good works of referees of papers submitted to its journals, although only on the basis of the

editor's opinions. I hope that in the future it will be possible for authors as well to thank referees. Unselfish cooperation extends beyond the conduct of research to the final production of the reports on the research.

I feel very strongly that I bear the responsibility for my scientific opinions, whether expressed in my own papers or in my comments on others' work. I have always stated, in sending my reviews to journals, that I had no objection to the author of the paper knowing that I reviewed it. I would hope that other scientists are also willing to express their opinions in public.

I hope that this letter will stimulate a debate on the subject of anonymous refereeing. My position is clear: There should be no anonymous reviews.

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The most interesting thing about David Lazarus's article "In Defense of Confidentiality" is the unabashed way he presents the issue—namely, that the only reasonable position is that the confidentiality of reviewers must remain sacrosanct. As is typical of administrators, the heads of the APS saw only their own needs and forgot that the purpose of the organization is to meet the needs of all its members. Surely they should have considered the possibility that the advantages to members of disclosing reviewers' names might, at times, outweigh any disadvantages.

The position taken by the APS is the same unilateral position taken by most university administrators during tenure-review litigation. The administrators keep only the bureaucratic needs of the university in sight and ignore the needs of faculty who claim their rights were abridged.

The argument that the infrequent disclosure of reviewer names under a subpoena would seriously jeopardize the review process seems hyperbolic at best. Given the slim chance of any one reviewer's comments actual-

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ly being subpoenaed, I doubt that most reviewers would take that possibility into consideration when writing reviews.

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3/90

The article "In Defense of Confidentiality" overlooked one most important aspect of the case in question—whether or not the referees had any association with a competing company. In my opinion it is less important to keep referees confidential than it is to keep research confidential. However, I do see that undue influence could be applied if referees were known during reviews. Lack of confidentiality might discourage some referees from continuing in that capacity.

It is essential that scientists and their companies have the knowledge that up-to-date research and ideas are protected from procurement prior to and during the publication process. If this cannot be guaranteed, one thing is certain: Companies will not allow research to be published until all the legal and commercial strangleholds are applied. This will stifle the dissemination of current information and effectively put a brake on rapid evolution of ideas.

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12/89

New Device Lets You Un-Water Your Lawn!

Mark Kuzyk (November 1989, page 129), motivated by John Wheeler's account of the "busted bottle" (February 1989, page 24), performed an interesting experiment to settle the Feynman inverse sprinkler problem. However, we must disagree with his conclusion that the sprinkler moves when water is forced out (the normal mode), but not when water is drawn in (the inverse mode). We suggest that the margaritas Kuzyk and his colleagues had drunk may have impaired their judgment.

Kuzyk and his colleagues were apparently unaware of a body of literature published in the *American Journal of Physics*² that culminated in our paper³ of July 1989. In our paper, we describe an experiment designed to resolve the inverse sprinkler problem and conclude that when the sprinkler is operated in the inverse mode, the sprinkler head rotates in a direction opposite to that of the normal sprinkler, with an angu-

lar momentum equal and opposite to that of the water. Only when the magnitude of the water velocity in the sprinkler nozzle is changing is there a net torque on the sprinkler head. In steady state, the sprinkler head moves at whatever angular frequency it acquired prior to attaining steady state.

We see no contradiction between Feynman's and Wheeler's accounts of the "busted bottle." Clearly Feynman's account indicates that the flexible tubing used to simulate the sprinkler head did move. Wheeler is more specific. He states that the tubing only twisted when the pressure was increased, that is, when the magnitude of the water velocity in the tubing was increasing, generating a net torque on the tubing.

In our experiment, the sprinkler head was mechanically isolated, in contact only with the water bath. This resulted in a very low external torque and allowed us to verify that angular momentum is conserved. We suggest that Kuzyk's experiment was subject to sufficient friction to render it insensitive to the inverse sprinkler effect.

References

1. R. P. Feynman, 'Surely You're Joking, Mr. Feynman,' Norton, New York (1985), pp. 63-65.
2. H. S. Belson, Am. J. Phys. **24**, 413 (1956). A. T. Forrester, Am. J. Phys. **54**, 798 (1986); **55**, 488 (1987). A. K. Schultz, Am. J. Phys. **55**, 488 (1987). L. Hsu, Am. J. Phys. **56**, 307 (1988).
3. R. E. Berg, M. R. Collier, Am. J. Phys. **57**, 654 (1989).

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11/89

Greenhouse Effect's Glacial Pace

There is some irony in the juxtaposition of Philip W. Anderson's Reference Frame column on research strategy for theorists (February, page 9) and the news story "Climate Modelers Struggle to Understand Global Warming" in the same issue (page 17).

Anderson quotes Francis Crick on the problems of theoretical work: "The principal error... is that of imagining that a theory is really a good model for... nature rather than being merely a demonstration (of possibilities)—a 'don't worry' theory.... It is difficult to believe that one's cherished theory, which really works rather nicely, may be completely false." The news article, when

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