

The Politics of Citation and Citations
in Politics

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Professor John Ziman of the University of Bristol is a man of powerful intellect. His broad interests are reflected, in part, in his role as an editor of *Science Progress*. He has identified himself with many science policy issues, especially public understanding of science. More recently he has been taking up the cause of persecuted Soviet scientists.¹

It is somewhat ironical that I speak with such obvious enthusiasm about this man because our only personal encounter took place ten years ago when I spoke at the Ciba Foundation in London about the then new *Science Citation Index*[®]. A large group of British science editors had been assembled. I presented the many theoretical and practical reasons that citation indexing was the greatest discovery since invention of the catalog card (or the wheel). Professor Ziman did not seem to be impressed. I had made the assertion that careful analyses of citation data enabled us to cover physics adequately by indexing only 40 leading journals. *Physics Abstracts* "covered" 800! My assertion had been attacked in *Nature*,² but I had been denied an opportunity of rebuttal. History has proven the validity of citation indexing, but that is not important

to this vignette. Ziman correctly pointed out that the list of journals to be covered then in 1964 did not include *The Philosophical Magazine*. Unknown to me, a conscientious clerk at ISI[®] had removed the title from the list, thinking it an obvious error. The journal *was* in fact covered and has been ever since. Surely citation analysis within a year would have rectified the error, if our scientific staff had by some default allowed the omission to persist for a year. In 1969 the *Philosophical Magazine* ranked 67th among journals in terms of total citations. Its impact factor was 2.251, ranking 184th.³

Professor Ziman, however, was very quick to perceive the difference between coverage of the *Philosophical Magazine* as a *cited* journal and coverage as a *citing* journal. Even if it were not one of our current source journals, it would be cited by other source journals and the citations would be discovered in any retrospective search using the *SCI*[®]. However, having heard the description of our *ASCA*[®] service, Professor Ziman quickly perceived that only *source* journal articles would be called to the user's attention each week. He further observed that it was to the

author's advantage to cite the right literature if his work was to be "noticed".

All of the above came to my mind when I read Professor Ziman's proper attack on the practice in the Soviet Union of omitting references to the work of dissident scientists. What a terrible disservice to Soviet and international science it would be if, for example, Lev Landau were to be declared a 'non-person' and that henceforth all references to his work be omitted from Soviet journals.

The ultimate extension of such an absurdity would be omission of any reference at all. Were this to happen, ISI would have the expensive and tedious job of restoring them if such journals were considered still worth indexing in spite of such nonsense. The integrity of a scientific journal depends in no small measure on faithful adherence to the unwritten law that authors cite all known pertinent, relevant work. I have often stressed that referees should assiduously demand this of authors and editors.

Obviously there are less serious

'political' reasons for not citing another person's work. Personality differences between scientists, if not direct rivalry, may be responsible. In other cases, sheer ignorance may be the cause, but eventually the long chain of citation connections brings such uncited works to the fore.

I must confess that whenever *Science Citation Index* methodology is used as a synonym for "citation indexing," and the author fails to cite one of my papers, I am momentarily chagrined. Whether from unjustified vanity or not is beside the point. Had I invented a simple method of protein determination, few meticulous authors would fail to acknowledge its use with a proper reference. In my own field and elsewhere, proper citation practices are by no means formalized. Such is the politics of all social endeavor and one must wage a constant educational struggle to improve things. We should be grateful to Professor Ziman that he continues to remind us of these questions.

Like any other science, information science without a conscience will end in moral bankruptcy.

1. Ziman, J.M. The problem of Soviet scientists. *Nature* 246:322-3, 1973.
2. Cleverdon, C.W. *Science Citation Index 1964 Annual Cumulation*. *Nature* 208: 717, 1965.

3. Garfield, E. Citation analysis as a tool in journal evaluation. *Science* 178:471-79, 1972.