

EDITORIAL

Bias

There are still authors who believe that referees and editors are biased against them. We doubt that they can be convinced that this is not so. A necessary condition for being a successful research worker is a touch of paranoia. This was pointed out by the eminent psychiatrist Nathan S. Kline,¹ who is himself a very successful researcher—twice recipient of the coveted Lasker award—thus he ought to know the characteristics well. A good researcher must fear that others are trying to pirate his ideas, to delay his experiments, and to scoop him.

I have known a few physicists who lack this essential trait. When someone publishes their results, they take it as proof that their work was worthwhile and they are happy to start on something else. They are the kind of people who read other people's articles carefully and rejoice in the success of others. They are usually excellent teachers and talent scouts. They do not get the recognition they deserve except from their own pupils, and any recognition comes late in their career.

Many years ago I had just finished the analysis of a very complicated atomic spectrum when someone else published the results. My teacher, Paul Ehrenfest, said that I should be proud because I, a mere beginner, had arrived at the same conclusions as an experienced senior colleague. I did not feel it that way at all. Unfortunately I could not blame any referees or editors for having been scooped; instead I just blamed my stars. This was further confirmed when I tried my luck at the roulette wheels in Spa and Monte Carlo; my favorite number, 17, seemed to have vanished. Even now the lowly five cent slot machines in Nevada pay me three standard deviations below the expected eighty percent. In my study hangs a fine old horse shoe, which I found in an abandoned Western ghost town. I don't believe in superstitions, but it is supposed to work even for a nonbeliever.² It hasn't so far.

Back to refereeing, there is always a chance for some bias. A referee may favor his own techniques over others. What the author considers a giant step forward, the

referee may see only as a trivial variation on an old theme. The editors' task is to eliminate or balance out such "technical" prejudices as much as possible. We have not been aware of any bias directed against a person. However, when two physicists have had a priority quarrel, the editors make sure that they do not referee each other's papers. It is also not true that unknown beginners are at a disadvantage compared with well-established physicists. On the contrary, anonymous referees do not hesitate at all to point out flaws in the papers of the notables.

Thus we ask, probably in vain, that authors refrain from accusing referees and editors of a personal bias against them. Among the imperfections of the referee system, such bias has not been a factor.

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¹N. S. Kline, *Indian J. Psychiat.* 1, 118 (1959).

²For historians: This fact was conveyed to me in 1941 by I. Bernard Cohen, the historian of science at Harvard University. I passed it on to Niels Bohr in 1954 when he visited Brookhaven. It is now known as "Bohr's story." W. Heisenberg, in his book *Der Teil und das Ganze*, incorrectly has Bohr telling it already in 1927.