
Why *The Scientist* Welcomes Corrections

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A certain amount of error in science is inevitable; in fact, the correction of errors and the retraction of incorrect or premature conclusions is expected as part of the normal process and progress of science.

Errors come in many varieties. Scientists, like everyone else, can be careless or inattentive. Such errors are preventable. But there are other errors that scientists make that are almost unavoidable, as when a conclusion, based on accurate experiments and current knowledge, is later shown to be incorrect in the light of new knowledge. Sociologists of science have been careful to delineate the varieties of error committed by researchers and the relative importance of each.

U.S. congressmen have not been so careful, however. In April, Rep. John Dingell (D-Mich.) convened a House committee to investigate the most recent professional dispute in science to have become public, this time involving researchers at MIT. As Barbara J. Culliton recently noted (*Science*, April 14, 1988, page 1720), the original allegations concerned error, "but in Washington, the congressmen talked about 'fraud' and 'misconduct'... Distinctions of language fell away; error merged into fraud."

But while scientists may lament the failure of outsiders to distinguish between fraud and error, they nevertheless should keep their own house in order, for the very reason that those who don't live within it have difficulty understanding its structure and the behavior of its occupants.

For some time, I have urged researchers to check the literature carefully for correction or retraction notices to publications they are using or citing (*The Scientist*, August 10, 1987, page 9). When appropriate, scientists should take special care to publish correction or retraction notes about work found to be in error or in some way flawed. Moreover, journal editors ought to allocate space for the publication of such notes, however "messy" they might appear. Many do, but even so the notes are often relegated to an obscure corner or added willy-nilly as filler.

"If journals reserved regular space for corrections, like those found in newspapers," argued Nicholas Wade in a recent editorial on this issue, "statements of error might become less traumatic" (*New York Times*, June 13, 1988, page A-22).

As a newspaper, *The Scientist* can function as a forum for corrections

and retractions, publishing them regularly and not obscurely. If there is sufficient interest, we will feature in our Research section a regular forum for retractions and important corrections *by authors* of papers originally published elsewhere.

We might also include brief reports of important correction and retraction notices published throughout the journal literature. We can search ISI's unique databases, in which we record some 5,000 correction and retraction notices each year, to extract the most significant ones. Readers are wel-

come to bring such information to our attention even before formal publication.

The scientific community, if it values highly enough the freedom it has previously enjoyed, should do everything it can to retain its independence. This means policing itself, in matters large and small. When we become inattentive to small perturbations such as inadvertent errors and their corrections, those outside the profession can all too easily misinterpret our inactivity and create mountains out of molehills. ■