

Science and medicine put right

D.J. Weatherall

Communicating in Science: Writing and Speaking. By Vernon Booth. Cambridge University Press: 1985. Pp.68. Pbk £3.95, \$6.95.

Research: How to Plan, Speak and Write About It. Edited by Clifford Hawkins and Marco Sorgi. Springer-Verlag: 1985. Pp.184. Pbk DM32, £8.75.

BROWSING through these books evoked painful memories. In the middle of the sleepless night before my first scientific presentation I discovered several mistakes in my slides. Panic stricken, I roused the night porter of the hotel in which I was staying and, after persuading him with difficulty that I was not putting the finishing touches to a bomb in my bedroom, borrowed a roll of electricians' tape with which to disguise the worst of the errors. When projected in a large lecture theatre the next morning the doctored slides appeared to be peppered with enormous black holes, an adornment which, though it caused a burst of whispered speculation, did little to clarify my garbled message, particularly because by then I was too far gone to see my notes. As I was helped from the podium I vowed that, if ever I ran a department, no youngster would be let loose on the public without rehearsal.

It is not surprising that scientists find it equally difficult to write. Many of us progress to our first research fellowships without having to write a decent piece of prose; as pointed out by George Pickering, the invention of the multiple-choice examination was the death blow to competent writing. Yet as the pressure to publish becomes greater, there is less time to correct or polish our efforts. Editing a multi-author textbook is a salutary experience. The only charitable explanation for some of the offerings that arrive from distinguished colleagues is that they were generated somewhere in the brainstem and transferred to the editor via a dictating machine and a word processor, without further human contact.

These two books aim to improve the situation. Not surprisingly, they are both much more successful when dealing with writing than with speaking. Vernon Booth's book, an extension of his excellent essay *Writing a Scientific Paper*, is a mine of helpful information on style and clarity, and could be read with profit by scientists of all ages. Of the new material, the short section on preparing a thesis will be invaluable to research students, but the chapter addressed to North Americans is slightly irritating. Though apologetic, Dr Booth makes it clear that he does not approve of a lot of American scientific writing. But are Americans really more

guilty than anyone else about the use of "stacked modifiers" and unnecessarily long words, and the misuse of the future tense? And why should Americans be expected to adopt British usage? A rich language is constantly changing; the more ghastly neologisms, from which ever side of the Atlantic they emanate, are unlikely to survive.

Hawkins and Sorgi's book is a multi-author effort directed primarily at young clinicians. As well as guiding them on how to write and speak, it tells them why they should do research and, perhaps rather ambitiously, how to do it. David Heath, in the introductory chapter, suggests that most doctors should spend two to three years of training in full-time research, "preferably in a laboratory". This, he says, will shape their critical faculties and turn them into better doctors, an attitude which is deeply entrenched in academic

a mediaeval magic lantern which is still in use in one of Britain's Royal Colleges, or have had to suffer the sensory deprivation caused by lecturing, slideless and in complete darkness. during a power cut in Athens, will any real feeling of confidence in communication be engendered in young scientists. And too much confidence can be worse than abject terror. Distinguished speakers, their over-exposed grey diazo slides matching their hair, and too blasé to put their thoughts into order, are much less interesting than panic-stricken beginners. Audiences thrive on tension, and eccentricity. Lectures by the eminent Cambridge physiologist who chewed his tie while he talked, often to the extent of gagging and having to start again, or the London physician who let his glass eye drop out if he sensed that his audience was flagging, were riveting experiences. It would be a



medicine. But is it entirely correct? While most doctors worth their salt will find rewarding clinical problems to explore, it is only a minority that have the ability and, even more important, the motivation to spend several years in a laboratory. They should not feel that it is essential to drop their clinical work simply to further their careers, a formula for frustration and poor science.

Hawkins and Sorgi cover a much wider field than Booth. There are informative chapters on statistics, reference filing and illustration, and appendices on thesis-writing, useless words, the anatomy of the dictating machine, and, again, American usage. All aspiring medical research workers should have access to this beautifully written and very practical book.

Although both of the books are excellent guides to scientific writing, they left me wondering how far it is possible to define — let alone teach — the skills of talking about science. Certainly there is no substitute for exhaustive rehearsal in front of a ruthless group of colleagues, and bitter experience. Only when they have seen their slides ground to dust by an aggressive Chinese slide projector, or tossed into the air like toast from a toaster by

any one, in our well-intentioned efforts to encourage competence in teaching and scientific presentation, we bred too much uniformity of style. Scientific research is tremendous fun; hearing about it should be equally diverting. □

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Fresh references

- *Genetic Engineering and Biotechnology Yearbook 1985*, edited by Alan G. Walton and Sharon K. Hammer. The *Yearbook* is an updating and expansion of the previous edition of 1983, and incorporates more information on the financial performance of biotechnology companies as well as details of their structure, personnel, research and products. Publisher is Elsevier, price is Dfl. 2,000, \$600.

- The first three volumes of the eighth and English edition of *Geigy Scientific Tables*, recently available in Britain from Farrand Press, 50 Ferry Street, Isle of Dogs, London E14 9DT. Like its predecessors, the eighth edition contains a wide range of data for clinicians and medical scientists in particular; unlike them, it is to appear in a number of volumes, and is not to be given away. The price (subsidized by Ciba-Geigy) is £12.50 per volume.