

In praise of the scientist as writer

Prizes of £500 are awarded to Dr Paul Grant and Dr Dan Hultmark, each of whom has provided *Nature* with an outstanding News and Views article during its 125th anniversary year.

ON accepting an invitation to write a News and Views article for this journal, or on proposing one, authors are sent a single sheet of paper dense with advice as to how to set about the job. These guidelines point out that the News and Views section provides a forum for the dissemination of scientific news to a wide audience. They go on to say that authors should make clear the nature of the advance concerned, which is usually described in a paper in *Nature* or elsewhere; and that, while communicating a sense of excitement, they should also provide a critical evaluation of the work.

Often, the guidelines are accompanied by a no-doubt irritating letter, from one or other of the editors who work on the section, reiterating the cardinal principle — that the news is of the essence, and that the way to tempt the uncommitted reader to read on is not to set the stage with background information, as maybe in an essay or review, but in a journalistic manner to put the nub of the research at the beginning. This approach rather cuts against the grain of most professional writing. Nonetheless, it generally works. Anybody wishing to judge the results can do so by browsing through some back issues.

Why, then, should one of the two prizes for literate and interesting News and Views articles published during *Nature's* 125th anniversary year — 4 November 1993 to 3 November 1994 — go to a writer who blithely ignored that advice? He began:

In December 1986 I boarded a plane in San José, California, bound for Zürich, determined to unearth the facts behind the reports and rumoured confirmations of superconductivity at 30 K which had recently been published by Georg Bednorz and Alex Müller.

Eighteen hours later, I stumbled jet-lagged into the IBM Ruschlikon laboratory. There I found an agitated and preoccupied young man — Bednorz had just received the preprint of Kitazawa and Tanaka's confirmation, and, justifiably, was concerned that the rest of the world would run away with his discovery.

Within half an hour, my travel weariness had disappeared. The amount and quality of the data my Swiss colleagues had accumulated was far beyond that generally known at the time, leaving no doubt that superconductors with T_c as high as 40 K really existed. I returned home a true believer, with the peace of my holiday delightfully shattered, ready to spread the good news to my colleagues in IBM Almaden.

This was Paul Grant, now at the Electric Power Research Institute, Palo Alto, California, writing in the 6 January 1994 issue.

The prompt for the anecdote was the publication, seven Decembers on from 1986, of two papers with claims for dramatic new highs in the transition temperature (T_c) of superconducting materials.

Grant earns his prize not because he tore up the rule book with such panache. Rather, in a single printed page, including references, he went on to examine the claims in a splendidly readable yet authoritative manner. That he had reservations about them was a demonstration of the demands on an author of secondary scientific writing such as this to point to possible inconsistencies and flaws in research papers, and to alternative interpretations to those put forward by the researchers concerned — painful though it may be to them.

The article, "Another December revolution?", is beautifully clear, for all that in the body of the piece Grant is necessarily involved in technical detail; and the narrative impetus stemming from the opening paragraphs picks up again towards the end with a judicious conclusion (which was wise, given the forceful form of the rest of the text).

Above all, the article is written to be read and enjoyed, as well as to convey information; it is not a referee's report. Although the thinking is rigorous, the prose is relaxed. 'Scientese' is a stiff language for the formal paper and lecture theatre, and in communication for non-specialists (but not, in News and Views, for non-scientists) it fails to make up in precision what it loses in simplicity or richness of expression. Putting the words 'scientific' and 'literature' together is not often justified. In the case of Grant's article it is.

It is not so long since digestible, independent and expert comment on science emerged into print in periodicals. In *Nature*, News and Views started to take the form it now has only in the late 1960s, most of the contributions then coming from regular (and anonymous) correspondents or staff members. Since then anonymity has gone and colour graphics have arrived. Regular correspondents are fewer than they were, and publishable unsolicited articles — which remain welcome — are comparatively rare. This may be a sign of the times. As the pace of research and competition for financial support has intensified, the need for scientists to write papers and grant proposals, rather than think up ideas for writing disinterested articles about the work of others, has become all the greater.

All of which is to say that whereas the short list for the prize won by Paul Grant, that for a solicited News and Views article, was in fact a long list, there were fewer contenders to choose among for the prize for an unsolicited contribution. Nonetheless the winning piece is every bit as worthy as "Another December revolution?". As in that article, the subjects for comment were papers published in journals other than *Nature*.

"Ancient relationships", by Dan Hultmark of Stockholm University, appeared under the rubric "Insect immunology" in *Nature* of 13 January 1994 (oddly enough, just a week after Grant's article). There is no need to paraphrase the gist of his story, for he did it himself in straightforward style:

Insects look nothing like vertebrates and their organ systems seem to be built on entirely different principles. Nevertheless, as we get a better understanding of how these systems operate at the molecular level, unexpected similarities are emerging. Among them must now be counted similarities in the respective immune defences, as reported in two recent papers.

So readers know where they are about to go. The article's other strengths are that the prose is plain, the explanations are clear without seeming didactic, and the text is succinct (again, no more than a printed page). Hultmark himself produced a helpful diagram which summarized the main points in visual form.

Here, though, it is the structure of the article that stands out. The opening is followed by an account of the underlying research agenda and of antecedent work, before Hultmark gets to grips with the detail of the papers concerned. Then comes a classic (and crucial) passage dealing with questions thrown up by the new developments, and finally a closing flourish. As in fiction, the best News and Views articles have an identifiable beginning, middle and end. "Ancient relationships" is as good an example of that as any piece, solicited or unsolicited, published over the past 12 months.

Choosing these two winners has been a thoroughly enjoyable but invidious task. Since 4 November 1993, some 350 other busy people have been in receipt of the guidelines for authors and have found the time to write for News and Views — for that they are all owed *Nature's* earnest thanks.

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