

referrals may well have reversed since 1991 because of the NHS reforms, which have seen so many radical changes in both general practice and the hospital sector. Until more up to date national data are available, Armstrong and Nicoll's argument, which is based on historical trends, may not be applicable.

In addition, our figures show a small decrease in the number of patients followed up during the period. This is contrary to Armstrong and Nicoll's suggestion that the problem of recycling patients has become worse in recent years and has resulted in access for new outpatient referrals being blocked.

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1 Armstrong D, Nicoll M. Consultants' workload in outpatient clinics. *BMJ* 1995;310:581-2. (4 March.)

\*In addition to the seven letters published above we received 11 other letters, reiterating the following points:

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|---|---|
| Some consultants work in specialties that do not hold outpatient clinics              | 6 |
| More diagnostic and therapeutic procedures are now performed in outpatient clinics    | 6 |
| There are more junior doctors, but they do less work in outpatient clinics            | 3 |
| Patients referred to clinics are older and sicker, and there are fewer inpatient beds | 2 |
| The patient's charter requires that more time is spent on explanation                 | 2 |

## Barts, the general, and the fat controller

EDITOR,—I was interested to read that Charles Clarke does not believe in the Lord.<sup>1</sup> However, he completely misses the point. To understand the workings of the NHS, what is necessary is a belief in the devil.

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1 Clarke C. Barts, the general, and the fat controller. *BMJ* 1995;310:810. (25 March.)

## The rhetoric of research

### Encourage spin: it provides context

EDITOR,—The heart of Richard Horton's argument is that the presence of "spin" in a scientific paper is unjustified and serves the illegitimate purpose of empowering the "knowledge" that the author wishes to convey.<sup>1</sup> The ensuing debate with Trisha Greenhalgh seems superficial because they discuss legitimacy rather than the underlying assumption that a paper can be categorised into two separate elements, spin and knowledge.

Horton proposes the use of critical literary analysis during peer review to extract the essence of a paper (its knowledge) by brushing away the author's spin and facilitates the process by suggesting that the author relinquishes his or her authorship. An author, however, does not own words (in answer to Horton's question), for words are common currency. An author could be said to own the configuration of words that makes up his or her paper, but, more relevantly to Horton's argument, an author does not own the meaning that the configuration presents, for readers can generate their own meaning. This is illustrated in the different interpretations of the Eurogast study

that Horton and Greenhalgh produce in their debate.

Phenomenological theorists contend that each person is a self determining thinker who perceives the world from a unique standpoint, and as a consequence the interpretation of a phenomenon relies on the relationship between the interpreter and the phenomenon. Horton misconstrues social science discourse in suggesting that spin provides power; it is perhaps more accurate to suggest that spin provides context. Knowledge does not exist in a vacuum; it is embedded in context, and without context it is meaningless. The removal of spin or the standardisation of spin would merely serve to reduce contextual information available to the reader, reducing the opportunity to generate a meaningful understanding of the knowledge that the author was conveying—the consequence of which for Greenhalgh would be to be "dead, under the table from boredom."

Rather than defend against spin, Horton might find it more valuable to encourage it: to ensure that authors' motives are explicitly recorded in papers, as is the case with qualitative studies. Good qualitative papers enable readers conjointly to learn about a phenomenon while learning what that phenomenon means to the author and why.

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1 Horton R, Greenhalgh T. The rhetoric of research. *BMJ* 1995;310:985-8. (15 April.)

### Embrace scientific rhetoric for its power

EDITOR,—I would like to join the formidable debate between Richard Horton and Trisha Greenhalgh on the rhetoric of research.<sup>1,2</sup> As Greenhalgh points out, "Scientific writing is by definition rhetorical." All researchers do, frequently without intention, use language to emphasise the likely truth of their results. The paramount question, however, is whether such "spin" is detrimental to science. I believe that the contrary is true.

Firstly, the eloquence of basic scientific observation has of late been diminished by the growing need for its interpretation, as today's scientists deal less with straightforward facts than with complex probabilities. Hence, science is no longer truly meaningful without the projection of personal values and biases on to mere facts and figures.

Secondly, the published volume of today's scientific literature is too vast to entertain the hope that results could speak for themselves. We rely on researchers to lend their findings a strong voice which illustrates, emphasises, and promotes their data's relevance.

The "spin" in science writing, which alarms Horton, is almost always motivated out of a desire—far from wishing to deceive—to engage readers in the impact of one's data, in the distant hope that such resonance may constitute but the beginning of a lengthy process that ultimately may lead to improved clinical practice. Of course flagrant disparities between reported results and their subsequent discussion, or excesses of hyperbole, need to be contained (scientific journals must not degenerate into a marketplace for mere medical opinions), and to this aim the scientific community has widely embraced editorial and peer review, without underestimating the power of readers' own discernment.

Sadly, by the time pieces of medical research have found their way into the popular press, such discernment is often lacking, owing to pressure to print headline news rather than the complex scientific truths that were originally reported. However, the responsibility for such misrepresentation of science writing lies not with the

researcher and ought not to be advanced as an argument for the introduction of structured, conformist discussions. Let us, instead, embrace scientific rhetoric for its power, especially when infused with a touch of vision and passion, to excite scientific minds and invite debate.

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- Horton R. The rhetoric of research. *BMJ* 1995;310:985-7. (15 April.)
- Greenhalgh T. Scientific heads are not turned by rhetoric. *BMJ* 1995;310:987-8. (15 April.)

### Recent review has similar findings

EDITOR,—For several decades sociologists, philosophers, and historians of science have been offering constructive approaches to understanding science and the nature of scientific inquiry.<sup>1-3</sup> Unfortunately, these pieces usually appear in journals and books which are seldom seen by scientists themselves, or they are treated by the scientific community with undue scepticism and often unfairly dismissed as irrelevant. Science itself would benefit from a more open minded outlook. With this in mind, Richard Horton's article<sup>4</sup> should be welcomed into mainstream medicoscientific literature. It bridges an important gap and illustrates a valuable perspective to a scientific forum, in a manner accessible to scientists.

Along similar lines, Judy Segal recently reviewed 200 articles about functional headache that have appeared in established medical journals since 1982. She then showed rather elegantly how authors strategically try to influence their readers.<sup>5</sup> As in Horton's article, Segal's demonstration involved textual analysis according to Aristotelean rules of composition and rhetoric.

It is fortunate that Horton did not see this article, otherwise he himself may have been unwittingly influenced by it.

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- Kessel AS. Medicine and "history and philosophy of science." *Health Care Analysis* (in press).
- Horton R. The rhetoric of research. *BMJ* 1995;310:985-7. (15 April.)
- Segal JZ. Strategies of influence in medical authorship. *Soc Sci Med* 1993;37:521-30.

### This is an action situation

EDITOR,—When reviewing a scientific article, Trisha Greenhalgh<sup>1</sup> tells us that she drinks up the introduction and eyeballs the results. When she has eared her words, will she eat them?

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1 Greenhalgh T. Scientific heads are not turned by rhetoric. *BMJ* 1995;310:987-8. (15 April.)

## Applicants for senior medical positions in New Zealand

EDITOR,—Ian Powell raises several sad points about the employment situation for salaried medical specialists in New Zealand,<sup>1</sup> which should serve as a warning to specialists in the NHS. The recent health reforms in New Zealand are similar to those in the NHS, with the creation of an internal market (a split of purchaser and provider