

On the current presentation of scientific papers: 1. Editing out redundancy

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In days of old, editors wielded their red pens with considerable authority in editing copies of accepted papers in preparation for printing. A manuscript could be covered in red ink to an extent that made most printers wince. The compositor set up lead type back-to-front to be inked and printed on paper to make the “hard-copy”. It is little wonder that the shorter a paper, the easier it was for both the editor and compositor, with the advantage that more papers could be published per issue where the page-budget per issue was low.

That’s all gone by the board; “track changes” has replaced the editor’s red pen, and we can now publish as many pages as we like in online journals. Page budgets and word limits are not so often a concern, except perhaps in Abstracts. But lengthiness does not make for a good scientific publication; indeed, the one person not mentioned so far is the reader. He or she would surely prefer to read a short paper that is to the point than a rambling diatribe. A submission that is succinct is a joy to editors, reviewers and readers.

My main concern in this commentary is redundancy. We editors have a duty to cut out unnecessary words and phrases, as well as repetitions, to ensure that the text flows easily and is as succinct as possible. Many papers I have sifted through recently clearly show that redundancy is rife and does not get removed prior to publication.

We can to some extent blame the entire practice of scientific communication. A paper has now become so stereotyped that it makes it nearly impossible to be brief and to the point. Over 50 years ago, the Nobel Laureate Peter Medawar considered this stereotyping tended to make the scientific paper something of a fraud. The format has changed little in the interim, most papers being quite frankly boring. How many of us have seen even the slightest hint of humour in a scientific paper? Any attempt at it seems to get the reviewer’s disapproval and the editor’s red pen! Perhaps it is time for a complete overhaul of how scientific communications are presented. Many bad habits that have crept in over the years are being perpetuated. Something can and should be done to remedy a worsening situation. Why, you ask, is it worsening?

Papers from authors throughout the world who do not have English as their native tongue are copying the format and presentation of average communications from many different sources. Personal style is rare. A lot of “petty” plagiarism is done because it is easier to use the words that someone else already published. From the use of less than acceptable English in international journals, common expressions become adopted and also distorted, which gets worse as the quantity of publications submitted and published each year escalates. It may be too late to take a stand against these problems. However, if some “body” can and should be doing something about it, it is us editors of international journals. We should once again be wielding

our “red pens”. The stronger our protestations, the sooner authors might comply with the edict that “short and simple is beautiful”.

Much of the redundancy in papers is due to unnecessary verbosity. Before boring you, as I get on my hobby-horse, a few examples should suffice to show you how we can strip out many irrelevant words and phrases. Take a look at the frequently used phrases set out below, each with a succinct alternative.

...cells were plated at a density of 1 x 10⁶ cells per ml

cells were plated at 1 x 10⁶/ml

Recent studies have shown that X is proportional to Y (Smith and Jones, 2001).

Smith and Jones (2001) found X proportional to Y. [Is 2001 “recent”? Check for yourself how often this type of nonsense is missed.]

..., but this needs to be further elucidated in future investigations.

...; further investigation is required. Alternatively:- delete the whole phrase – a scientific paper is “state of the art”; invariably (further) research goes on!

10%, 20%, 40%, 60% and 80%

10, 20, 40, 60 and 80%

...the presence of compound X caused the level of the activity of the enzyme to be elevated.

...X increased enzyme activity.

...the resuspended cells were spun in an ultracentrifuge at 100,000g.

...the resuspended cells were spun at 100,000g.[inference helps cut words where it is obvious – what can possibly be used other than an ultracentrifuge to spin at this intensity?!]

In addition, we also suggest that X might be proportional to Y.

X might be proportional to Y.

X has been found to be important in...

X is important in...

With little effort, many papers can be 20-30% shorter simply by removing redundant words and phrases, without losing any of the sense. We achieve greater succinctness and clarity. Need I go on? Editors, take note; we have a job to do. But we must also educate authors to follow suit, which would make our task easier in future. In my next commentary I will be dealing with the use of clichés.