



## WHAT'S WRONG WITH THIS PROSE?

N. David Mermin

I write bleary eyed and disheartened, after a long proofreading session mainly devoted to inserting into the galleys calls for the restoration of what was capriciously and destructively altered in the editorial offices of *Physical Review*. I proofread simply by reading the galleys, without reference to the original manuscript. My writing is a process that does not converge; I cannot read a page of my own prose without wanting to improve it. Therefore when I read proofs I entirely ignore the manuscript except to check purely technical points. Proofreading offers one more shot at elusive perfection. Proceeding in this way, I come to the end of a paragraph with a lurching sensation. The last sentence seems to be a *non sequitur*. Can I be failing to get my own point? Turning to the copy-edited manuscript, I find a marginal message: "Author: Please note that we discourage single-sentence paragraphs." As an application of this principle, one short emphatic paragraph has been attached to the end of another, to which it is entirely unrelated. If you set asunder what *Physical Review* has joined, it makes sense again.

What is the justification for such a rule? Excessive use of single-sentence paragraphs blurs the distinction between the sentence and the paragraph, makes for a visually unattractive page and becomes boring. But the occasional single-sentence paragraph is a powerful device. It gives a pause in the rush of thought, it focuses attention, and it can contribute powerfully to the rhythm of the prose. The Constitution of the United States of America, whose prose War-

ren Burger enjoined us to admire in its 200th-anniversary year, is chock-full of beautiful single-sentence paragraphs. A blanket prohibition is absurd, and enforcing it by paragraph grafting is almost certain to do violence to the clarity and even the meaning of a well-written essay. So I go through the galleys restoring the three or four indigestibly merged paragraphs, adding my own marginal messages ("Editor: We discourage gratuitous confusion") in the hope that my counterinstructions will not be ignored.

A bit later I come to a reference to nature. "Nature herself," I remember writing, "has proved to be quite unambiguous. . . ." The galley reads, "Nature has proven quite unambiguous. . . ." Not bad, I think, getting rid of that unnecessary "to be"—should have spotted it myself. But then I notice that nature has been depersonified. Why can't nature be "she"? Could "herself" have been sacrificed in an enlightened attempt to exorcise unconscious sexism from the pages of *Physical Review*? No. (Author: Please note that we discourage one-word sentences.) The desexing of Mother Nature is explained by "Author: Please note that the editor feels this wording to be more literal, and therefore preferable." The note refers me to other applications of the same rule to my manuscript: The adjective has been deleted from a reference to a "charming monograph," and "aficionados of ring theory" has become "ring theorists." The first alteration has deprived the reader of the information that the work in question is uncharacteristically readable for a monograph on number theory; the second eliminates the information that ring theory is not part of the everyday mathematical equipment of most physicists, and also introduces an absurdly inappropriate pomposity (compare "evolution theorists" or "relativity theorists" or "group theorists").

The next thing I run into is "Au-

thor, please place only a word or short phrase rather than a whole sentence in italics." Well, OK. I can see that whole sentences in italics might make for a blotchy kind of page, particularly if there are lots of equations around. But occasionally it can be quite useful to call attention to a central point by putting it in italics. I maintain that anything you can do to help the reader follow your argument is worth doing. Nevertheless, I'm willing to forgo excessive use of the italic option for the sake of a neater page. But what have they done at *Physical Review*? They haven't removed *all* the italics; selected (God knows how) words in those formerly italicized sentences have been left in italics, with almost uniformly preposterous results. (My proofs sport about ten such sentences, all reading like this one; I freely admit that I probably got carried away with italicized sentences, but surely the cure is worse than the disease.)

Stranger still, in the caption of a geometric figure the assertion that the straight line joining B to point F has the same length as the straight line joining point A to point F, which appears in the manuscript as " $BF = AF$ ," has been transformed into " $d(BF) = d(AF)$  (where  $d$  is the distance)." This violates three cardinal rules at once: Do not introduce unnecessary notational complexity; do not introduce unnecessarily unconventional notation; do not make lengthy that which is brief.

And so it goes. *Physical Review* is certainly not the only practitioner of destructive copy editing. *Scientific American* is notorious for elephant walking over the writing that enters its offices, systematically pounding it into homogeneous soporific mush. Even *PHYSICS TODAY*, which publishes some of the better prose in the scientific literature, is not without its foibles. (I am told they are thinking of reforming.) Were you, for example, reviewing a concert for *PHYSICS TODAY* you would be required to talk about

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"Wolfgang Mozart's *Jupiter* Symphony" because, I can only imagine, the reader might be under the impression that Leopold wrote one too. It would have to be Johann von Goethe's *Faust* and Sandro Botticelli's *Primavera*. Everybody you mention in *PHYSICS TODAY* has to have a first name. This is absurd and can also be destructive of good writing, introducing the literary equivalent of a hiccup into a smooth sentence, or raising in the reader's mind such spurious questions as "Why Werner Heisenberg; was there another I didn't know about?"

Why am I telling you all this? Surely you all have stories of assaults on your manuscripts as irritating as mine. Precisely. I raise the matter to urge you to fight back. This savaging of our prose—this obliteration of our human individuality—has something important to do with one of the great failures of science in our time: the virtual disappearance of just plain readable—never mind humane—scientific prose. This is a calamity for science, and not only because it makes the practice of science much less fun. Bad thinking is vastly easier to cover up if you're allowed to get away with and even encouraged to produce bad writing.

Among the principles underlying these examples of copy editing is the intention to eliminate any trace of a human author. The inevitable result is a bland uniformity. By making the point that anything remotely lively, idiosyncratic or quirky will be eliminated, *Physical Review* deprives an author of any incentive to write interestingly and, worse, makes it very much more difficult for an author to provide gracefully the kinds of em-

phases and signposts without which scientific exposition can become virtually unintelligible.

Eliminating the artificial obstacles to decent scientific prose erected by *Physical Review* will not in itself ensure the return of clean and vibrant writing to its pages, but as long as the copy-editing process continues to emasculate or defeminize our texts, there is no hope that we can breathe the life back into scientific writing or persuade our students that writing well is a worthy and even noble endeavor. The final result of our efforts as scientists is, after all, not a table of data, a set of equations or the output of a computer. It is an essay, a piece of expository prose. That's what grant officers, promotion committees and biographers care about and for once they're right.

So fight back. Restore the humanity to your bowdlerized text when the galleys arrive. Victory does not come easily, but it will never come to those who refuse to fight. I changed "monograph" back to "charming monograph" in the proofs, and I write now, over a year since I began this essay, to report the results. I got a call from *Physical Review*.

"About that monograph . . .," the man said.

"Yes?"

"How would you like 'interesting monograph' or 'important monograph'?"

"Well," I said, "as a matter of fact it isn't *terribly* interesting. And *nobody* could honestly say that it was important." Long pause. "But it *is* charming."

"Oh," he said. "I see."

And it stayed "charming." Therefore do not hesitate to write interesting, readable, lively, intelligible articles. It is your duty to do so. And when the proofs come back duller, clumsier and more ambiguous than the manuscript you sent in, restore the life to those galleys, and be calm but firm when the phone rings. You will not only have more fun that way, but you will also be contributing to the good fight to reverse the sad and dangerous decline of scientific discourse in our time. ■



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