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What's behind paper retractions? (7)

We're Mostly Wrong but Trust Us

Is the "mega-correction" here to stay?

Has "correction creep" infected scientific journals? Consider these lengthy corrigenda:

▶ On September 8, the authors of a *Nature* paper were forced to issue a correction that began as follows: "The figures and Supplementary figures of this Letter are affected by errors and improper editing. The correct figures are now provided, with an explanation of the variations. The original Letter has not been corrected online. We apologise for the confusion that our errors could have produced. We admit our negligence in the supervision of technical activity. We acknowledge that image manipulation is not acceptable and that any image modification must be clearly described. None of the alterations have any direct impact on the validity of our conclusions, which were also substantially confirmed in papers published by other independent groups."

▶ Later in September, *Nature* ran a correction that took three paragraphs of text to describe what was wrong with Figure 1. And then there were the errors in the supplemental material. But it was alright, the authors said, "In all cases, choice of images was completely independent of the data analysis and so none of the conclusions in our original Letter are affected. We apologise for any confusion these errors may have caused."

▶ In December, the *Journal of Cell Sciences* published a correction that detailed major errors in three separate figures, along with a failure to disclose some funding and the inclusion of four authors who shouldn't have been listed on the paper. The correction didn't come out and say that the paper was still reliable but the journal's comments to us were that "if we had determined that the errors in the original paper had affected its overall results and conclusion, we would have retracted it as per our published policies".

We're all for correcting the scientific record, no matter what that takes. We've argued – in *Nature*, as it turns out – that scientists should embrace post-publication peer review, of which this would be a sort. Critiques like these, whether from the authors or their critics, should be as accessible as the original paper. And there's a certain kind of transparency in these mega-corrections, which appeared in journals that, in our experience, actually do a pretty good job of spelling out what was wrong with the original paper when they correct and retract. They certainly did so here.

But are mega-corrections really the best way to go?

It's worth looking at the Committee on Publication Ethics' (COPE) guidelines, according to which journals "should consider issuing a correction if: a small portion of an otherwise reliable publication proves to be misleading (especially because of honest error)" or "the author/contributor list is incorrect (i.e. a deserving author has been omitted or somebody who does not meet authorship criteria has been included)". Retractions, say the guidelines, require "clear evidence that the findings are unreliable, either as a result of misconduct (e.g. data fabrication) or honest error (e.g. miscalculation or experimental error)".

So, it ends up depending on what you consider "a small portion". Perhaps it's inevitable that portion size is increasing, at least in the U.S., where, when it comes to food, today's "medium" is yesterday's "jumbo." And the smallest coffee at your local Starbuck's is a "Tall".

But Americans have paid the price for that portion size creep, with more and more people becoming obese and diabetic. Journals would do well to avoid the scientific version of that fate.

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(The authors run the blog Retraction Watch: http://retractionwatch.com)