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# "How Sloppy Science Creates Worthless Cures, Crushes Hope, and Wastes Billions" . . . and still stays around even after it's been retracted

by Andrew

Chuck Jackson points to two items of possible interest:

> Rigor Mortis: How Sloppy Science Creates Worthless Cures, Crushes Hope, and Wastes Billions, by Richard Harris. Review here by Leonard Freedman.
>
> Retractions do not work very well, by Ken Cor and Gaurav Sood. This post by Tyler Cowen brought this paper to my attention.

Here's a quote from Harris's review:

> Harris shows both sides of the reproducibility debate, noting that many eminent members of the research establishment would like to see this new practice of airing the scientific community's dirty laundry quietly disappear. He describes how, for example, in the aftermath of their 2012 paper demonstrating that only 6 of 53 landmark studies in cancer biology could be reproduced, Glenn Begley and Lee Ellis were immediately attacked by some in the biomedical research aristocracy for their "naïveté," their "lack of competence" and their "disservice" to the scientific community.

"The biomedical research aristocracy" . . . I like that.

From Cor and Sood's abstract:

> Using data from over 3,000 retracted articles and over 74,000 citations to these articles, we find that at least 31.2% of the citations to retracted articles happen a year after they have been retracted. And that 91.4% of the post-retraction citations are approving—note no concern with the cited article.

I'm reminded of this story: "A study fails to replicate, but it continues to get referenced as if it had no problems. Communication channels are blocked."

This is believable—and disturbing. But . . . do you really have to say "31.2%" and "91.4%"? Meaningless precision alert! Even if you could estimate those percentages to this sort of precision, you can't take these numbers seriously, as the percentages are varying over time etc. Saying 30% and 90% would be just fine, indeed more appropriate and scientific, for the same reason that we don't say that Steph Curry is 6'2.84378″ tall.

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