Fake Peer Reviews, the Latest Form of Scientific Fraud, Fool Journals

By Josh Fischman

Scientists appear to have figured out a new way to avoid any bad prepublication reviews that dissuade journals from publishing their articles: Write positive reviews themselves, under other people's names.

In incidents involving four scientists—the latest case coming to light two weeks ago—journal editors say authors got to critique their own papers by suggesting reviewers with contact e-mails that actually went to themselves.

The glowing endorsements got the work into Experimental Parasitology, Pharmaceutical Biology, and several other journals. Fake reviews even got a pair of mathematics articles into journals published by Elsevier, the academic publishing giant, which has a system in place intended to thwart such misconduct. The frauds have produced retractions of about 30 papers to date.

"I find it very shocking," said Laura Schmidt, publisher in charge of mathematics journals at Elsevier. "It's very serious, very manipulative, and very deliberate."

This "has taken a lot of people by surprise," wrote Irene Hames, a member of the Committee on Publication Ethics, in an e-mail to The Chronicle. The committee is an international group of science editors that advises journals on ways to handle misconduct. "It should be a wake-up call to any journals that don't have rigorous reviewer selection and screening in place," she wrote.

Blame lies with those journals, she said, that allow authors to nominate their own reviewers and don't check credentials and contacts.

What's worse, said Ivan Oransky, co-publisher of the blog Retraction Watch, which first uncovered this pattern, is that some editors saw red flags but published the papers anyway. Later retractions don't undo the harm created by introducing falsehoods into the scientific literature, he said, noting that some of these papers were published years ago and have been cited by several other researchers.

'Do-It-Yourself' Reviews

Claudiu Supuran, editor in chief of the Journal of Enzyme
Hyung-In Moon, now an assistant professor at Dong-A University, in Busan, South Korea, had submitted a manuscript along with the names of several potential reviewers. Mr. Supuran, then an associate editor at the journal, duly sent the article out for review and became suspicious when good reviews came back in one or two days. "Reviewers never respond that quickly," he said.

So he sent the manuscript to two scientists whom he picked himself. Their reviews suggested revisions but were also positive, so the article was published.

But he was still skeptical of Mr. Moon. The following year, Mr. Moon was still submitting manuscripts and Mr. Supuran, promoted to the top editing job, decided to look harder at the latest one. Mr. Moon "listed names of reviewers and affiliations, like the University of Florida, but he gave a Gmail or Yahoo e-mail address as the contact," Mr. Supuran said. "And once again the positive reviews came back within two days. But this time I called some contacts at the University of Florida, and they said they never heard of Moon's supposed reviewers."

Mr. Supuran then e-mailed Mr. Moon. "It was a very difficult conversation," he said. "I told Moon I really needed to speak to these people directly. First he said he didn't have any other contact information. But I persisted. Then he said that they didn't exist. He also admitted to me that he falsified data in his papers."

Anyone can open a Gmail or similar account under a name that isn't his or her own, as long as that name hasn't been taken by another user. For instance, Haroldvarmus@gmail.com was available last week, but e-mail sent there will not reach Mr. Varmus, the Nobel Prize-winning virologist and director of the National Cancer Institute. Mr. Moon, said Mr. Supuran, must have done something similar and then written the reviews himself.

"I asked him if he realized how serious this was," Mr. Supuran said. "He said yes, he did. I told him I couldn't publish his paper under these circumstances. He then said I was going to destroy his career."

(\textit{The Chronicle} attempted to contact Mr. Moon and the other scientists whose papers have been retracted but did not get any responses.)

Mr. Supuran, a professor of pharmaceutical sciences at the University of Florence, alerted the journal publisher, Informa Healthcare, about these problems. He also contacted several other journal editors to warn them about Mr. Moon. Informa began an investigation of articles that Mr. Moon had written.

That was last December. The first retraction notices appeared this past August: "The peer-review process for the above article has been
found to have been compromised and inappropriately influenced by the corresponding author, Professor HI Moon.” To date, 28 papers have been retracted, with Mr. Moon’s agreement. (His papers prompted seven earlier retractions as well, but the reasons for those are vague.)

The medicinal-chemistry journal has now changed its policy to require that every paper have two reviewers not suggested by an author.

'Something Suspicious'

A retraction notice published in July highlighted another case. It recanted a paper published in February in *Experimental Parasitology* by Guang-Zi He, a researcher at the Guiyang College of Traditional Chinese Medicine, in China. The paper identified a potential target for a vaccine against a bacterial infection. Mr. He gave e-mail addresses of several suggested reviewers, but all of the e-mail services were in China, while some of the reviewers were not, which raised editors' eyebrows. That and some other oddities triggered an investigation, which led to the retraction.

An unusual feature of that incident was that the journal is published by Elsevier, which has a database of reviewers. Even if an author suggests a reviewer, editors are supposed to use contact e-mails from that database. Elsevier officials say they do not want to reveal details of how the database may have been accessed or manipulated. They do say that the company discovered a vulnerability in the system and has corrected it.

But not, apparently, before that vulnerability may have been exploited to the advantage of two mathematicians—Akbar Tayebi, of the University of Qom, and Esmaeil Peyghan, of Arak University, both in Iran. Retraction notices for three of their papers, published this year in the *Journal of Geometry and Physics* and the *Journal of Mathematical Analysis and Application*, appeared in mid-September.

"We were alerted by another publisher in May that there was something suspicious about these two authors," said Elsevier's Ms. Schmidt. She looked at the reviewers of their papers for the Elsevier journals "and noticed they had generic e-mail contacts, not institutional e-mails. So I contacted these referees at their institutions. ... They said they were not even aware of the papers."

Then she contacted the authors and told them what she had found. "The authors did not provide any convincing evidence to the contrary," she said. It is possible that someone else planted the false reviews. But the end result was retraction.

Pressure on both authors and journal editors is a major factor in this new type of fraud, observers say. Authors need publications to advance their careers, and as grant money and the job market
Definitely sounds like a bunch of editors are getting lazy or don’t know the fields that they cover very well. While the journal that I serve as a review editor for solicits reviewer suggestions from authors and also allows them to point out potential reviewers with a conflict of interest, I find that these suggestions are only appropriate (ie actually suggest reviewers with expertise in the field of the paper) about 25% of the time and one paper submitted in ten claims that all of the experts in the field are in “conflict”. Even if you (as editor) don’t know a ton about the field of the paper, it takes about 5 minutes with Pubmed to figure out who has been publishing in the paper’s area. It really is not that hard to identify the experts in a particular field (as determined by publications) in the world of the internet....

On the journal side, editors are handling more submissions than ever—Mr. Supuran said he and three other editors work on 500 to 600 papers each year, about 20 percent more than when he started—and due diligence can be a casualty. When swamped, said Lance W. Small, a member of the ethics committee and a professor emeritus of mathematics at the University of California at San Diego, "editors may cut corners."

Since Elsevier justifies their high prices on the basis of the hard work they do managing the peer-review process and other editorial responsibilities, should they now pay library subscribers some kind of rebate for those journals where they failed to perform adequately what they were paid for?
This guy is destroying reputation of the entire country. Fake reviews, fake stats, and more.

What kind of editors serve in these journals? I am an editor and I know in person or by reputation 95% of reviewers, whom I am assigning to review papers submitted. The remaining 5% I will find by their publication record and will use their emails from our journal database or from their publications. Journals with editors who "cut corners" - is the main problem.

I am not a journal editor as other having made comments here, but I respectfully disagree with the idea that the fault rests solely with editors who cut corners. That is certainly part of the problem and needs to be corrected through the use of tighter policies and the exercise of due diligence by the editors. While I sympathize with those editors who are "swamped", I would also suggest that they have recognized a problem and need to find a way to fix it. At the same time, at the core of the problem lie the cheating and dishonest scientists. Yes, they have excuses (pressure to publish etc etc), but, aside from NIH, do we have systems in place to publicly sanction those who decide to cheat? Mr. Moon alleged that the editor was going to destroy his career -- perhaps it should be destroyed -- or short of that perhaps his institution should place him under some sort of probation or suspension. From the article, there is no indication that Moon's institution was contacted and informed of the situation. Did this happen? Or did it not because the journal and its editor did not want to be exposed to potential legal exposure? We all know that the publication of "flawed" papers is a serious problem — especially in health-related fields. We all know that MANY more people see papers with fabricated or falsified data than ever see the retraction. It seems to me we need a more concerted effort to deal with those who choose to follow the cheating path. Policies are important, but they are really guidelines for those who wish to do the right thing. For the minority of those who either cannot or refuse to "follow the rules" we need a joint and concerted effort by journals, institutions, and academic associations to deal with cheaters in a unified way. They need to work together to decide what will happen in terms of policy development, implementation, and reporting to one another, so that the cheaters and frauds with be dealt with severely and consistently. Science progresses as a cumulative process, and when projects are misdirected because previous work is fraudulent, we are wasting valuable time, effort, and resources because the cheaters and frauds obviously think (a) they can get away with it or (b) the sanctions are worth the risk.

"Very manipulative, very deliberate"? Sound like marketing and public relations strategies. There are other ways to steal money than robbing a gas station. The fraudsters might simply publish in vanity journals as is often done by my colleagues. Nobody reads the journal articles and when the faculty specify the journal ranking—as is the case at my school, vanity pubs become quality research. Tenure and pay raises follow quite nicely, since administrators haven’t the time or inclination to do anything but count the number of pubs.

Chauncey M. DePree, Jr., DBA, Professor, School of Accountancy, College of Business, University of Southern Mississippi
The real problem here is the Associate Editors (AEs) themselves -- the ones who send the papers out for review. AEs supposedly know their field -- I am an AE for several journals and would never send a paper to a reviewer whose background I had not checked up on first. Google and Pubmed and Web of Science are and AE's friend - and not too hard to use.

However, I also blame the journals and the structure they have put in place. Being an AE is a relatively thankless and often volunteer job, and some AEs are pushed to handle papers that are well outside their comfort area. Not all journals are clear on the training, standards, and expectations of their AEs. Put all this together, and I think it can create circumstances where the AE may not necessarily give every paper the attention it deserves, creating complacent behavior on the part of the AE. If that person happens to be busy, in a bad mood, out of town and behind schedule, they are more likely to just use the suggested reviewers. I think one solution to this is to not only set standards, but better incentivize/reward those who serve in these volunteer (or nearly volunteer) positions.

And like graddirector stated, I find the suggested reviewers (by the authors) to be not worth using 80% of the time. All too often they are a list of names that (by my online search) know nothing of the topic, may have some past affiliation with the author, or are highly qualified "big names" who are so famous (or famously bust) they would likely never respond to a review request.

Tee-hee.... Looks like credentials used in tenure decisions ain’t all they’re cracked up to be. I love it when the academy is forced to stare at its emperor's clothes.

When you create a metric for success that is simple to track, it's also usually simple to game. To me, this is no different than the emphasis that certain admin types put on student surveys to assess teaching effectiveness. In both cases, the metric depends on the honor system (for the surveys, it assumes that the instructor is not enticing his students with "easy As") and in both cases, the metric only presents the appearance of validity without any actual substantive rationale. And in both cases, once the metric has been identified and institutionalized, folks have found ways to exploit this mere appearance of validity.

Just goes to show ya... people are the same wherever you go.
dzrilib 1 week ago

Are all the affected journals published by commercial publishers? Could this be the problem?

Like Reply

larryc 1 week ago

Why didn’t I think of this? I could be an endowed chair or something by now.

2 people liked this. Like Reply

charliem 1 week ago

I am among the people astonished at how poorly vetted journal authors have been. The examples given were tripped up apparently because they were not culturally savvy enough to beat the system. Imagine how many people born and raised in the culture have been getting away with it for the their whole careers.

2 people liked this. Like Reply

marauder2048 1 week ago

More model behavior...

Like Reply

bnmoore 1 week ago

Shocking! It's shocking I tell you! [sic]

This kind of peer review cheating has not begun of recent years, but in one form or another for decades at least.

Like Reply

nontraditional001 1 week ago

Unfortunately, the far east appears to be producing lots of spam and counterfeits. I get daily spam invitations from bogus conferences and journals in China.

5 people liked this. Like Reply

average_joe 1 day ago

I was intrigued to read "But not, apparently, before that vulnerability may have been exploited to the advantage of two mathematicians—Akbar Tayebi, of the University of Qom, and Esmaeil Peyghan, of Arak University, both in Iran. Retraction notices for three of their papers, published this year in the Journal of Geometry and Physics and the Journal of Mathematical Analysis and Application, appeared in mid-September.”

It appears that there is some organized activity going on in Iran for creating bogus journals and conferences. I suspect that some other Middle Eastern countries are also involved in this. I receive a lot of spam from these people. The spam contains no ‘mailing’ addresses or traceable telephone numbers but questionable email addresses. Flush with oil money, Iran is also engaged in exporting students to money hungry US universities also. The Iranian students are being accepted with very little scrutiny into programs particularly in California. Do they really have degrees? Or are there other sinister reasons behind their arrival in the US? I am surprised that these activities have not come under the radar screen of national security organizations.

The implications of what is going on far exceeds plagiarism or unethical publishing.