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OPINION

Storm in a teacup: predatory journals are irrelevant

Short title	Storm in a teacup: predatory journals are irrelevant
Long title	No big news for scientists: Journalists recently uncovered a scandal surrounding predatory journals. What happened?
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"Predatory publishing" describes the practice of pseudo scientific publishers that promise scientists the rapid publication of their studies. They purport to carry out a peer review but actually do not do such a thing and basically publish anything if the publication fee has been paid. Thus, unreviewed but not necessarily low quality work ends up in worthless online journals, which for a layperson are not necessarily distinguishable from reputed journals. The phenomenon is well known to researchers. A quick search on Google Scholar returns hundreds of articles on predatory publishing since 2017 alone. Curiously, a team of investigative journalists of public broadcasters WDR and NDR as well as the broadsheet newspaper Süddeutsche Zeitung (SZ) has tried to scandalize what in essence amounts to not more than academic SPAM mail.

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What is easily missed in the lurid tone of reporting is that scientists who have published in a predatory journals are mostly victims themselves and that only a very small number of scientists are affected.

The #FakeScience dilemma

First of all, the hashtag #FakeScience that the journalistic consortium used to market their supposed scoop is highly problematic. It is obviously a reference to the term “fake news”. The latter originally served as a relatively neutral description of deliberately false information spread with manipulative intent mostly via social media. Meanwhile, it has become a buzzword. The journalists behind the #FakeScience story would certainly refuse to be referred to as #FakeNews in the face of a few unintentional factual mistakes in journalistic coverage. But now they provide a similar buzzword that climate skeptics, opponents of vaccination and other conspiracy theorists will latch onto to dismiss scientific evidence contradicting their world views. This is dangerous because the reporting on predatory publishing under that heading is by and large too superficial to be able to correct the distorting image that the hashtag paints. Many scientists have spoken out on Twitter to correct the false impression created by media reporting, however, they have had to use the hashtag in order to be heard in the debate.

The term #FakeScience implies that all studies published by pirated publishers are fake. Most of it, however, may well be serious research but inadequate, irrelevant, or both. Some published papers may even be really good, but a young, inexperienced junior scientist has fallen prey to a pirate publisher. Not surprisingly, most of the scientists mentioned in the media are or claim to be the victims of pirated publishers, often having unsuspectingly spend tax money on scientifically worthless journals or conferences. Unfortunately, the #FakeScience-journalism creates the impression that 'false' results have been willfully placed in predatory journals and that the problem is widespread.

The reporting is full of vague terms like "many" ["viele"], "rapdily increasing numbers" ["rasant gestiegenen Zahlen"] or "great number" ["relevante Größe"] but mentions very few figures. When concrete numbers are mentioned, no relevant comparisons are given. These are hallmarks of fraudulent science that the #FakeScience research purportedly wants to denounce. One of the few figures provided in the reporting is that "more than 5,000 [German] scientists" are affected. That may sound like a lot at first, but in fact this corresponds to only about 1.5% of the 393,400 scientific employees at German universities and university hospitals. This figure does not yet include scientists from major research societies, other institutes and the private sector.

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Publish or Perish

In fact, only a very small number of researchers are fooled by predatory publishers, and most only once. Even fewer deliberately publish with such publishers. Why is this? In science, despite all the hype around "publish or perish", the quality of publications is still more important than their quantity. Predatory journals enjoy no reputation in science. Such a reputation must be built over years, even decades. Anyone who publishes in such a journal will not receive any recognition in their discipline for their publication - it will simply not be seen and read by other scientists - and will in any application process appear as naive or worse a cheater.

The existence of thousands of so-called "predatory journals" may be confusing to a layperson. It does not pose a problem to scientists though. For instance, for me as political scientist working on political behavior only one to two dozen journals are relevant the names of which I know by heart. Most scientists are in a similar situation. Their field has a handful of top journals or publishers in which everybody would love to publish. And then there are also a few other publication locations that are also very good to good.

So why should scientists (willingly) publish with predatory publishers? Under the headline "Why so many researchers publish in a dubious way" ["Warum so viele Forscher auf unseriösem Weg publizieren"], the NDR only vaguely refers to research funding agencies such as the German Research Foundation (DFG) and fails to mention that the DFG has put a cap on the length of publication lists on applications since 2010. It does so to counteract the publication pressure that predators take advantage of. In comparison to publication pressure, also known as "publish or perish", and other problems such as the so-called replication crisis or an increasing dependency of German universities on third-party funding predatory publishing receives little attention in science. The reason is simple. For most scientists, requests from predatory publishers are simply SPAM, annoying but quickly clicked away.

Point the finger at science

It is striking that scientists named publicly hail primarily from disciplines that receive research funds from the private sector. It is easier to fool the private sector, the media and the public with #FakeScience than it is to fool scientists. Mainly people outside of science, including journalists, are fooled by publications in predatory journals. Which newspaper has not reported at least once on a dubious study?

The SZ in its magazine reported on such a case. A study that was easily recognized as unfounded by experts in a "predatory journal" also reached the SZ and other quality media via the AFP news agency. This was not because of predatory publishers, but because journalists did not consult scientists to verify the veracity of the study. Often, time pressure is to blame, however,

sometimes the story may simply be too good to be contradicted by further inquiries. At the science journalism conference Scicar last year, a journalist reported from an editorial meeting. When he pointed out that a study discussed in the meeting was dubious, the editor-in-chief decided: then we will publish it in the "panorama" rather than the science section.

Scandalization helps to draw attention to problems and to create pressure for the development and implementation of solutions. As subsequent statements from Germany's big research institutions Max Planck Society, Fraunhofer-Gesellschaft, Helmholtz Association and Leibniz Association make clear that they are aware of the problem and are improving existing measures. In that sense the reporting might have served a purpose in alerting researchers to the problem and existing safeguards. However, it is about time that NDR, WDR and SZ as well as other media who have taken up the “sensation”, should choose more differentiated, subtle and calm reporting; otherwise there may be lasting damage to science along the lines of Churchill's supposed quip "Do not trust any statistics you did not fake yourself."