

By Jaivime Evaristo

Hard lessons

My phone rang after I boarded a plane at the Amsterdam airport, on my way to visit family in the Philippines. It was my former Ph.D. adviser calling to tell me a preprint had just been posted that identified flaws in a paper we'd published in *Nature* looking at how forestry practices affect streamflow. My stomach dropped as he told me the authors of the critique were demanding a retraction. We couldn't talk long—the plane soon took off. I spent the 16-hour flight processing a mix of emotions—disbelief, embarrassment, frustration—and wondering what this would mean for my career.

After the plane landed, I took out my laptop and logged onto the airport WiFi so I could read the critique for myself. It was harsh and thorough, pointing out several fundamental flaws in our methods and in the underlying data, which we'd gathered from other studies.

The fallout was swift and intense. I received a flood of emails and messages. Some were from supportive colleagues, but many were harshly critical of our work. "You should not have used that metric even if it was used by earlier studies," one wrote. "Those earlier studies were also wrong!" As the first author of the paper and the person who had done all of the data analysis, I felt deeply embarrassed by the criticism.

We wrote a draft response, correcting the apparent errors in the data set and defending our methods. *Nature* sent our response out for peer review, along with the critique. We decided against publishing our response, however, after receiving feedback from peer reviewers. Our mistakes were consequential, and it was clear that the only ethical thing to do was to retract the paper.

By that point in my career, I was well past graduate school and had secured a faculty position in the Netherlands. But I was still devastated by the toxic comments that appeared on social media and in exchanges with anonymous peer reviewers. Colleagues encouraged me to have a thick skin and ignore comments that seemed to be directed at me personally. But I had a hard time doing that. I struggled with self-esteem, started to avoid meetings and conferences, and deleted my Twitter account to protect my mental health.

When it became clear that a retraction was inevitable, I formally offered my resignation to my department head. He didn't accept it, saying a resignation wasn't needed considering the errors in the paper were honest mistakes.



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I decided to carry on, hopeful I could eventually recover my reputation by publishing sound science and demonstrating that I'd learned from my mistakes. But that has turned out to be a tough path. In the 3 years since the retraction came out, I've had trouble getting my work published. I've also had problems securing funding for new projects, even when the proposed work had nothing to do with the work that was retracted and external reviewers were positive about my proposal.

Despite these challenges, I don't regret our decision to retract the paper. It may have been embarrassing and humbling, but it was the right thing to do. And the experience helped me grow as a scientist.

I had made my data and code for

the *Nature* paper openly accessible so others could review and verify my findings, and I have a new appreciation of the value of doing so. This transparency is essential for the integrity of science, and I learned the hard way that it is better to be open and accountable, even if it means admitting mistakes. After taking a hard look at my own role in the situation, I have also realized I should have reached out to other researchers to get feedback on my methods before publishing. I can't expect myself to know everything as a scientist and my work will be stronger if I seek out diverse expertise and opinions.

In the end, the reality is that retractions are a necessary part of the scientific process—and one that shouldn't be viewed only through a negative lens. Retractions can also be an opportunity to learn and improve. Honest mistakes happen, and researchers should be encouraged, not punished, for doing the right thing and retracting flawed work. ■

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