

**Are high-impact journals influenced by Twitter regarding their published content?
A case report**

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Introduction

The social media network Twitter is unequivocally influencing public opinions. One persuasive indication is the use of Twitter by USA President Trump to shape national and international policy. Here, I ask an important and, to my knowledge, mostly unexplored question: *Should science journals be influenced by tweets of their readers regarding their published content?*

It is a common secret that tweets could be biased by opinions of organized interest groups which monitor the contents of influential and highly read magazines and then mount massive, and on many occasions offensive, tweets in order to intimidate the authors and promote their positions. In such instances, the opinion of the silent and mostly non-tweeting community is skewed or suppressed. In my opinion, scientific journals, and especially the ones that are most highly read, should not be influenced by tweets in selecting their content. Below I will describe a case, involving the legendary science magazine *Nature*, which, I suspect, may have been influenced by tweets of readers regarding some contributions by this author. I am not sure if his case represents an isolated incident or it is a business strategy for a journal to avoid negative tweets. Several attempts to investigate this incident with the Chief Editor of this magazine were unsuccessful (please see below).

This incident may look like a personal dispute between an author and a journal, something that is very common and not usually of general interest. I believe that some of these incidences could have wider ramifications and should be publicized for two reasons. First, to make sure that authors are treated fairly by influential journals and second, that these journals use transparency in their decisions on what to publish or not publish, away from influences by social media and other organized groups. Below I describe a specific case. The readers can draw their own conclusions.

The case

In April 2017 this author published in *Nature* a mentorship column entitled “a growing phobia” (1). The piece, as it is customary, was heavily edited by the magazine’s editors and there was no indication of any controversial issues. However, a number of Tweeters had a different opinion and attacked the column viciously. This author was also attacked by Tweeters (many were the same) for an unrelated mentorship piece published in *Science* magazine two years earlier (2).

Among the numerous negative tweets, two encapsulate the message (copied verbatim from the tweets). “Why do high-impact journals keep giving this researcher a platform to advice trainees?” and “Why is Diamandis rewarded for bad behavior? How can *Nature* run such an unsympathetic, student-blaming piece of crap?”

The Tweeters message was vicious and clear: “Keep this author away from publishing in these high-impact journals”.

Although I do not have the proof, it seems that *Nature* editors (or artificial intelligence algorithms) took note of the tweets and decided not to publish any future pieces from this author.

Follow-up events

In year 2017 this author submitted 3 separate opinion and mentorship pieces to *Nature*. One piece was dealing with scientific irreproducibility and was accepted by one of *Nature's* section editors. A few months later the piece was heavily edited and the proofs sent to this author for final checking. While awaiting publication, this author was notified that the piece was “cancelled” and will not be published. No further explanation was given. Around the same time, this author submitted two other pieces to another of *Nature's* section editors. One piece was on “Hubris and sciences”, co-authored with an international authority in the field. The two co-authors worked with the section editor to make the suggested changes and included telephone conversations. Then, the section editor told my co-author and I that the piece was accepted for publication in the printed version of *Nature*. The third piece was a mentorship piece on “Google Scholar” which was also verbally accepted by the same section editor. The section editor advised us to be patient since the publication was to take some time, due to priority of other pieces, and we agreed to wait.

After the first of the 3 pieces was “cancelled” without further explanation, we inquired about the other two pieces, and were informed that they were also cancelled, due to changes of the journal's priorities. Since that time, two of these contributions were submitted and eventually published in other journals (3, 4). We did not, at that time, file any complaints with the Chief Editor. In my 35 years career in academia, and 800 published papers in my record, this was the first time I experienced a reversal of a decision of an accepted manuscript without an apparently valid reason.

Another incident

In the fall of 2018, one very bright high-school female student working in my lab for the last 3 years, who published extensively with me on a diversity of subjects, decided to write her experiences/story as a mentorship piece. At that time, I advised her not to use my name since the story should have been about her, not me. In her story she used the name of her mentor as Dr.D. Her story was enthusiastically received by *Nature* and the section editor went through many rounds of revisions with the student, including telephone conversations. Her heavily edited story was ready to be published but at the last minute, the section editor decided to include in the piece the full name of her Mentor. I reluctantly agreed that my name is revealed, in order to comply with the editor's query and to facilitate publication. However, instead of publishing the piece, the Section Editor notified the young author that her piece has been cancelled. He kindly claimed that *Nature*, besides loving the piece, does not publish contributions from high-school students. However, the author's status was known to him from the very beginning since the title of the piece was “A high school student in a research lab”. Understandably, the young student was devastated with the reversal of the decision. My own interpretation was that revealing my name was likely the detrimental factor.

Contacting the Editor

Nature has appointed a new female Editor in May, 2018. I thought that she should become aware of the aforementioned incidences, especially since one of them involved a young female scientist. *Nature*, according to their claims, strives for gender equality and supports the youth. I filed a formal complaint on October 10, 2018 and the Editor acknowledged receipt of the documentation, which included all email exchanges with the section editors. In her email of November 2, 2018 she wrote back to us “*Thank you for your note; we have been discussing the matter internally and will be in touch very shortly*”. Since that time we kindly requested her promised response but without any success. Simply, she keeps quiet and does not respond to my emails anymore (last unsuccessful attempt to reach her was on January 29, 2019). I asked for advice on this case by an Editor-in Chief of two other respected journals and he thought that *Nature’s* Editor actions were inappropriate and unfair to the authors, including the young female author.

Lessons learned

Nature is in a position of power and seems to have decided to ignore the incident. However, as a leading science and mentorship outlet, in our opinion, it has the responsibility to respect its readers and authors and exercise transparency. At the very least, we deserve and expect an explanation. In the absence of their input, we are left to assume that their decisions may have been influenced by social media such as Twitter. If true, such behavior could impede the freedom of speech, something that *Nature* proclaims to promote. Also, *Nature’s* silence resembles hubristic behavior (4). Hubris has been described to affect people in power. This may well be the first example of hubris, affecting a leading scientific journal. Last but not least, *Nature’s* action victimized a young female author.

Regarding the ethics of scientific publishing, we invite *Nature* to take a stand on some issues related to the described incident. These include the questions

1. While acknowledging that any journal retains the right to reject any submission, is it ethical for journals to reverse their decision after a paper is accepted, unless there is fraud involved?
2. Should a journal silence an author to satisfy the demands of social media?
3. When a formal complaint is filed, is it appropriate for an editor to keep quiet and ignore it, instead of offering an explanation to the author, after the investigation is completed?

We hope that this disclosure will contribute in making sure that leading scientific publications are not influenced from social media when making decisions on what to publish and respect the rights of authors to deserve an explanation for formally filed complaints. Despite its undisputed leadership and great history, *Nature* should not be exempt from the written and unwritten ethics of scientific publishing.

Last but not least. There is now enough evidence that big corporations and Governments are collecting information from social media to pursue their goals (5). We do not know if leading scientific journals are doing the same. If they do, we believe that they have an obligation to disclose it to their readers and authors.

References

1. Diamandis EP. A growing phobia. *Nature* 2017; 544: 129. Doi: doi:10.1038/nj7648-129a.
2. Diamandis EP. Getting noticed is half the battle. *Science* 2015; 349: 206.
3. Fiala C, Diamandis EP. Make researchers revisit past publications to improve reproducibility. *F1000R* 2017; 6:1717.
4. Bouras N, Diamandis EP. Hubris and sciences. *F1000R* 2018; 7:133.
5. Harari YN. *21 questions for the 21st Century*. Spiegel and Grau, 2018.