

# Up 4 Discussion

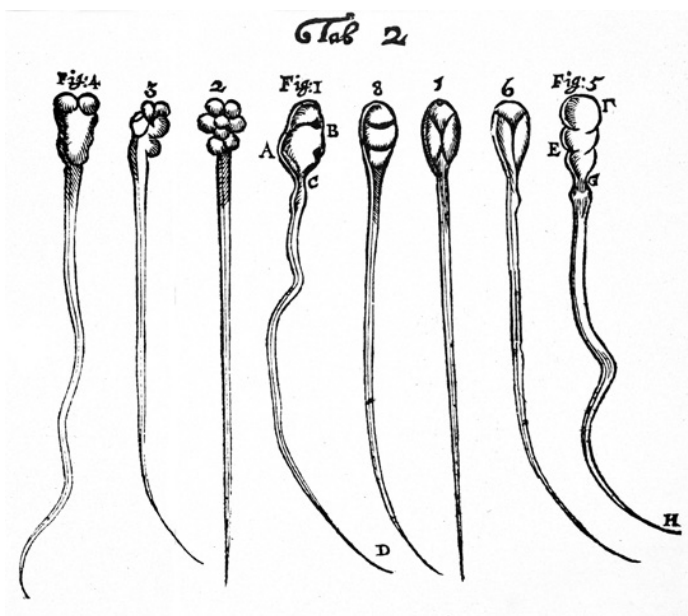
## Royal Society of Chemistry Provides Guidelines for Censorship to its Editors

by Anna Krylov, Gernot Frenking, and Peter Gill

Anton van Leeuwenhoek [1] was a founder of microbiology. By perfecting lens grinding, he created microscopes capable of 200x magnification. Leeuwenhoek was the first to observe blood cells and microorganisms. He communicated his observations to the Royal Society, which published them in its *Philosophical Transactions*. Leeuwenhoek was also the first to observe spermatozoa in semen, a breakthrough in understanding sexual reproduction [2]. However, he was hesitant to communicate his findings, concerned that they might be offensive. He prefaced his report: "If your Lordship should consider that these observations may disgust or scandalise the learned, I earnestly beg your Lordship to regard them as private and to publish or destroy them as your Lordship sees fit [2]." His Lordship—the president of the Royal Society—did opt to publish van Leeuwenhoek's observations in *Philosophical Transactions* in 1678 [3]—thus begetting the field of sperm biology.

Things could have played out differently for Leeuwenhoek in 2021. Per recent Guidelines [4] of the Royal Society of Chemistry, a professional society publishing more than 50 chemistry journals [5], editors must now "consider whether or not any content (words, depictions or imagery) might have the potential to cause offence."

The document [4] begins: "We have a shared responsibility to guard against all forms of discrimination or exclusion. We expect all staff, authors, reviewers and editors to cooperate with measures introduced to ensure inclusion and non-discriminatory conduct. Our aim is for all published material to be respectful, accurate and relevant. The aim of this guidance is to help you *to identify and prevent the publication* of inappropriate content in our journals and books, and to encourage you to reflect on how inappropriate content can impact members of the community and readers around the world." The Guidelines [4] continue, "Words, depictions and imagery have the potential to cause offence, therefore we need to consider how content might be perceived by others. There can be a disparity between the intention of an author and how their content might be received—it is the perception of the recipient that determines offence, regardless of author intent. This highlights the need for scrutiny and awareness at all stages from content creation to publication." (Emphasis ours).



Sperm from rabbits (Figs 1-4) and dogs (Figs. 5-8), drawn by draughtsman of Antoni van Leeuwenhoek in 1677, published in 1678. (Image retrieved from Wikimedia Commons)

An accompanying memo clarifies: "Offence is a subjective matter and sensitivity to it spans a considerable range; however...it is the perception of the recipient that we should consider, regardless of the author's intention." That is, the offence is understood in terms of the feelings of the offended, not whether there is a plausible reason to be offended; this is at odds with the "Free Speech and Academic Freedom" report by the UK Department of Education [5], which states: "Potential for offence caused by speech should not in itself be used to prevent lawful freedom of speech" (p. 34).

What sort of inappropriate content should editors be on the lookout for? The Guidelines [4] provide a list of 15 "indicators" of inappropriate content, including "Harmful, hateful"; "Harassment: unwanted [content] that makes others feel intimidated or humiliated"; "Material...that presents explicit/exploitive, obscene or degrading text, pictures, illustrations"; "Any content that could reasonably offend someone on the basis of their age, gender, race, sexual orientation, religious or political beliefs, marital or parental status, physical features, national origin, social status or disability"; and "Likely to be upsetting, insulting or objectionable to some or most people." The authors of the Guidelines [4] could have saved some ink and shortened the list to either of the last two, as each is sufficiently broad to justify censoring anything in chemistry and beyond.

One might wonder, how likely would a chemistry paper be to contain such inappropriate content? After all, chemistry is blissfully distant from such “contentious” areas as human biology, heredity [6], and sexual reproduction [7]. Yet recent examples show that even writing about highly technical matters can be a minefield of “offences.” As one of us recently documented in “The Peril of Politicizing Science” [8], content that is “objectionable to some” includes names of scientific discoveries and equations, such as the “Shockley-Queisser limit” and “Newton’s Laws”; technical terms, such as “quantum supremacy,” “master password,” and “dummy variable”; and a slew of plain English words [9]. For example, “normal” allegedly “makes most people feel excluded.” [10] So much for “normal pH” and “normal distribution” [11]. Some scholars—including an associate vice president of Mount Royal University in Canada—are offended by English grammar and are calling for the rejection of capital letters as a “symbol of hierarchy” and oppression [12]. Following the Guidelines, are RSC editors now to prevent publication of “pH”, “pKa”, and “[M]”?

Censorship—the suppression or prohibition of any parts of books, films, news, etc. that are considered obscene, politically unacceptable, or a threat to security—is already a reality in scientific publishing. Today censorship is administered not by repressive governments but by Twitter vigilantes, or, more generally, “outrage mobs”; an outrage mob is defined as “a group or crowd of people whose goal is to sanction or punish the individual, individuals, or organization they consider responsible for something that offends, insults, or affronts their beliefs, values, or feelings.” [13]

In 2020, *Angewandte Chemie* removed a published paper from their website in response to the demands of an offended mob [14]. In 2021, a paper the *Journal of Hospital Medicine* about the perils of tribalism in scientific discourse [15] was retracted and republished along with an apology [16] for this “microaggression”—apparently, the word “tribalism” belongs to the list of “oppressive”, “culturally appropriate” language [10,17]. The *Journal of Intelligence* explicitly states on its website that it will not consider manuscripts that may “lead to or enhance political controversies.” [18] More examples can be found in a recent study by Stevens, Jussim, and Honeycutt [13].

This work also explores current mechanisms of censorship and suppression of scholarship. Importantly, it highlights the responsibility of authorities in resisting “outrage mobs” calls for punishment and suppression of ideas: “Although outrage mobs often trigger the punishment process, in Western democracies, mobs

no longer actually burn witches at stakes. For most punishment to occur in academia, some authority has to agree to implement the mob’s punishment. ...Mobs do not get papers retracted; that is the decision of editors and editorial boards. Thus, the key turning point in whether an academic outrage mob is effective at punishing an academic for their ideas is usually the action of authorities.” Hence, it is imperative for our leadership to resist the mobs and defend the institutions they are entrusted with against the ideological subversion.

The Guidelines were created by the RCS Committee of Inclusion and Diversity [19] as a new addition to their “A framework for action in scientific publishing,” developed to address alleged systemic and individual biases [20]. RSC has also issued a “Joint commitment for action on inclusion and diversity in publishing” [21], already endorsed by many other publishers, pledging to “engage all relevant stakeholders to improve outcomes on inclusion and diversity, at all stages of the publishing process.” In their response to our Letter to *Chemistry World*, RSC clarifies that the Guidelines were “created in partnership with external experts” and “dovetail with existing policies and decision-making processes.” [22] The question that remains unaddressed is how the goals of inclusion and diversity will be advanced by censorship of scientific publications.

Censorship is antithetical to the scientific enterprise. The publishers of the Royal Society of Chemistry should focus on its mission, facilitating the communication of high-quality chemistry research, and stay true to the purpose of the Royal Charter—“the general advancement of chemical science and its application.” [23] Rather than turning Twitter censorship into policy, scientific publishing leadership worldwide should defend the core principle of science—the free exchange of ideas.

#### References:

1. Antony van Leeuwenhoek (1632-1723); <https://ucmp.berkeley.edu/history/leeuwenhoek.html> (accessed 01/09/2021) (also known as Antoni, Anthoni, Antonii, Anthonii, Antony, Anthony and also Lewenhoeck)
2. L. Poppick, The long, winding tale of sperm science. *Smithsonian* (2017); <https://www.smithsonianmag.com/science-nature/scientists-finally-unravel-mysteries-sperm-180963578/> (accessed 01/09/2021)
3. D. Lewenhoeck, Observations D. Anthonii Lewenhoeck, De Natis E Semine Genitali Animalculis, *Philosophical Transactions*, **12**, 1040 (1677); <https://archive.org/details/philtrans01261904/page/n11/mode/2up>

## Up 4 Discussion

- Guidance for the elimination of inappropriate content in RSC journals and books, <https://www.rsc.org/journals-books-databases/author-and-reviewer-hub/process-and-policies/#inappropriate-offensive-content> Full version of Guidelines furnished to the editors: [https://drive.google.com/file/d/1h8VqXygX\\_q3b1H-\\_1MX0ye4uAaY60xHx/view](https://drive.google.com/file/d/1h8VqXygX_q3b1H-_1MX0ye4uAaY60xHx/view) and glossary (provided together with the Guidelines): [https://drive.google.com/file/d/1YKHNzPwbh8P5wIs\\_YymbBNBGEMaVASEt/view](https://drive.google.com/file/d/1YKHNzPwbh8P5wIs_YymbBNBGEMaVASEt/view)
- List of Royal Society of Chemistry Journals, Wikipedia, [https://en.wikipedia.org/wiki/List\\_of\\_Royal\\_Society\\_of\\_Chemistry\\_journals](https://en.wikipedia.org/wiki/List_of_Royal_Society_of_Chemistry_journals) (accessed 01/09/2021)
- L. Maroha, Self-Censorship on Campus Is Bad for Science, *The Atlantic* (2019); <https://www.theatlantic.com/ideas/archive/2019/05/self-censorship-campus-bad-science/589969/>
- K. Herzog, Med Schools Are Now Denying Biological Sex, Common Sense with Bari Weiss (2021); <https://bariweiss.substack.com/p/med-schools-are-now-denying-biological>
- A. I. Krylov, The peril of politicizing science, *J. Phys. Chem. Lett.* 12, 5371 (2021), <https://doi.org/10.1021/acs.jpcclett.1c01475>
- J. McWhorter, Even trigger warning is now off limits, *The Atlantic* (2021), <https://www.theatlantic.com/ideas/archive/2021/07/brandeis-language-police-have-suggestions-you/619347/>
- D. B. Taylor, Maker of Dove soap will drop the word 'normal' from beauty products, *New York Times* (2021), [www.nytimes.com/2021/03/09/business/unilever-normal-positive-beauty.html](https://www.nytimes.com/2021/03/09/business/unilever-normal-positive-beauty.html)
- Normal distribution; Wikipedia article: [https://en.wikipedia.org/wiki/Normal\\_distribution](https://en.wikipedia.org/wiki/Normal_distribution) (accessed 01/10/2021)
- J. Coyne, Canadian university office ditches capital letters as forms of oppression, blog post on the "Why Evolution is True", 3 Sep 2021: <https://whyevolutionistrue.com/2021/09/03/canadian-university-office-ditches-capital-letters-as-forms-of-oppression/>
- S. T. Stevens, L. Jussim, N. Honeycutt, Scholarship Suppression: Theoretical Perspectives and Emerging Trends; *Societies*, 10(4), 82 (2020); <https://doi.org/10.3390/soc10040082>
- L. K. Sydnes, The Hudlicky case—A reflection on the current state of affairs, *Chemistry International*, vol. 43, no. 1, 2021, pp. 42-44; <https://doi.org/10.1515/ci-2021-0127>
- Z. Kanjee, L. Bilello, Tribalism: The Good, the Bad, and the Future, *Journal of Hospital Medicine*, originally published in volume 16(4), p. 227 (2021); <https://drive.google.com/file/d/10psp2Qwegj7jktP3NIV2jmUJmha1nWD/view>; later replaced by the not culturally appropriate version titled Leadership & Professional Development: Specialty Silos in Medicine, v 16(6), p. 357 (2021); Published Online First 21 May 2021; <https://doi.org/10.12788/jhm.3647>
- S. S. Shah, K. D. Manning, C. M. Wray, A. Castellanos, K. E. Jerardi, Microaggressions, Accountability, and Our Commitment to Doing Better, *Journal of Hospital Medicine*, v 16(6), p. 325 (2021); Published Online First 21 May 2021; <https://doi.org/10.12788/jhm.3646>
- Recommendations of the Brandeis University on "Suggested Language List" <https://www.brandeis.edu/parc/accountability/language-list.html>; Accessed 09/05/2021.
- Journal of Intelligence*; <https://www.mdpi.com/journal/jintelligence/about> (accessed 30/09/2021).
- RSC Inclusion and Diversity Committee: <https://www.rsc.org/about-us/our-structure/council-committees/#id-committee>
- A framework for action in scientific publishing: <https://www.rsc.org/new-perspectives/talent/framework-for-action>
- Joint commitment for action on inclusion and diversity in publishing: <https://www.rsc.org/new-perspectives/talent/joint-commitment-for-action-inclusion-and-diversity-in-publishing>
- A. I. Krylov, G. Frenking, P. Gill, Editorial Guidelines (Letters section), *Chemistry World*, October 2021: <https://www.chemistryworld.com/opinion/letters-october-2021/4014425.article> (and including RSC response at the end)
- RSC Royal Charter: Mission statement and bylaws, <https://www.rsc.org/about-us/our-charter>

**Anna I. Krylov**, Professor of Chemistry, Department of Chemistry, University of Southern California, USA; <https://orcid.org/0000-0001-6788-5016>; [krylov@usc.edu](mailto:krylov@usc.edu); **Gernot Frenking**, Professor of Chemistry, Philipps-Universität Marburg, Marburg, Germany; <https://orcid.org/0000-0003-1689-1197>; [frenking@staff.uni-marburg.de](mailto:frenking@staff.uni-marburg.de) **Peter M. W. Gill**, Professor of Chemistry, School of Chemistry, University of Sydney, Sydney, New South Wales, Australia; <https://orcid.org/0000-0003-1042-6331>; [p.gill@sydney.edu.au](mailto:p.gill@sydney.edu.au)