

1 **Peer review bullying threatens diversity, equity and inclusion**

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5 **Abstract.** Bullying during the peer review process is an overlooked form of academic bullying.
6 Implemented measures to limit its negative impact are insufficient, necessitating new initiatives to
7 protect individuals and the integrity of science. If unaddressed, peer review bullying will
8 undermine diversity, equity, and inclusion, particularly harming early-career researchers and
9 minorities.

10 **Keywords:** academia, authors, reviewers, editors, bullying behavior

11 **Peer review bullying is a prevalent form of academic bullying.** Academic bullying refers to
12 hostile or harmful behavior in academic settings such as laboratories, fieldwork, and conferences
13 (Figure 1) [1]. Academic bullying has numerous adverse effects on individuals [2, 3]. For these
14 reasons, efforts to mitigate it are being made by institutions and associations. Despite substantial
15 resources invested to improve the academic landscape, various forms of academic bullying remain
16 poorly addressed such as bullying during peer review [4].

17 Peer review bullying refers to an unfair and potentially aggressive behavior exhibited by reviewers
18 during the peer review process. It includes unconstructive criticism, which involves providing
19 harsh and dismissive feedback without offering suggestions for improvement, contrary to the
20 constructive approach a reviewer should take [5]. It also encompasses ad hominem attacks, where
21 reviewers make derogatory or personal comments about the author rather than focusing on the
22 research itself. Unfair bias is another form of bullying that arises when personal prejudices,
23 competition, or conflicts of interest influence the review. It can also involve double standards
24 where stricter criteria are applied to specific authors or groups compared to others. This often leads
25 to gatekeeping, where reviewers use the process to exclude certain researchers, topics, or
26 viewpoints from publication. Intentionally delayed reviews can impact the author's publication
27 timeline and can be also considered a form of bullying. Plagiarism and idea theft, which involve
28 using or stealing an author's ideas or data without permission or proper attribution, are misconduct
29 behaviors and can also be considered forms of bullying (Figure 1).

30 Bullying during peer review has many negative effects on individuals because although one can
31 build a career without attending conferences, it is impossible to build a career without publishing
32 scientific papers [6]. It affects mental and physical health, causing stress, anxiety, and a loss of
33 confidence. It negatively impacts research progress, with extreme delays in publication
34 jeopardizing funding opportunities, tenure, and promotions. If peer review bullying is consistent,
35 it can lead to a decrease in the quality of research by discouraging innovative and provocative
36 work, resulting in a less diverse body of scientific knowledge (Figure 1).

37 **Peer review bullying is hard to detect and avoid.** One major reason peer review bullying is
38 widespread is that it is difficult to detect. Editors often lack the training necessary to recognize
39 such behavior, which can result in them overlooking bullying even when they carefully screen
40 reviewer comments. Moreover, peer review bullying is subjective, intentional, and targeted, with
41 actions aimed at causing harm or distress to a specific individual. What might appear neutral to an
42 editor could be perceived very differently by the authors. Reviewers often know the authors from
43 previous interactions and research and can bully the authors without the editor realizing it, because

44 editors are unaware of the past interactions between both parties. No one expects editors to know
45 the authors' life trajectories and past interactions with the reviewers, as this is simply not possible.
46 This is a main flaw of the current publication system. The current model assumes complete
47 neutrality from reviewers, which is inherently impossible, and expects editors to fairly judge and
48 eliminate inappropriate behavior that they are unable to detect.

49 Peer review bullying is also difficult to avoid because peer review is one of many tasks that
50 academics are expected to perform without formal training, and they may not always be aware of
51 the negative impact of their comments on the authors. Reviewers are also often not recognized for
52 their work, and some may view providing detailed, careful, respectful, truthful, and ethical reviews
53 as a waste of time. Moreover, in discussions with some editors, a major issue that was raised is
54 that some qualified scientists decline to peer review a manuscript simply because they find
55 grammatical errors in the abstract, immediately associating these English mistakes with poor
56 science. Even worse, sometimes they agree to review a paper, and only judge the quality of the
57 English instead of providing meaningful scientific feedback, despite some journal guidelines
58 clearly stating that they should focus solely on the scientific content.

59 **Implemented measures to address peer review bullying are not enough.** Despite the challenges
60 in detecting peer review bullying, many journals have introduced guidelines and policies for
61 reviewers and editors to help prevent it. For instance, to avoid targeted criticism, journals have
62 introduced open peer review which consists of publishing reviewer comments, or double-blind
63 peer review, where both reviewers and authors remain anonymous. To recognize the work of
64 reviewers and encourage them to write constructive reports, journals have started to introduce
65 initiatives like selecting a "Reviewer of the Year" or publishing the names of those who have
66 reviewed for the journal to recognize their contributions. Some journals have gone further by
67 establishing internal systems where reviewers are ranked based on the quality of their comments,
68 allowing future editors to identify those who have provided thorough feedback in the past and
69 many encourage diversity among reviewers and editorial boards [7] to reduce inherent biases and
70 promote fairer evaluations. Journals also often allow authors to blacklist some names from
71 reviewing their work, based on previous interactions between both parties.

72 However, not all these measures are widely adopted, as many journals have yet to implement them.
73 More critically, some of these measures such as double-blind peer review are not efficient in
74 limiting bullying, especially within small scientific communities where personal connections are
75 common and the author's identity can be easily deduced even without their name on the document.
76 Systems that rank peer review reports often struggle as well because it can be challenging to
77 evaluate the quality of reviews in a consistent manner. Blacklisting certain individuals from
78 reviewing a paper requires authors to know their bullies based on past interactions. This poses
79 another challenge, as reviewers who act poorly often do not disclose their identities. Even when
80 the authors manage to identify their bullies, there is no guarantee that their blacklist will be
81 respected, as this decision is often at the discretion of the editor and the specific policies of the
82 journal.

83 A radical solution to academic bullying during peer review requires a revolution in the current
84 publication system. Some traditional journals and recent initiatives have started experimenting
85 with new publication models [8, 9] such as publish, then peer review [9]. However, no one expects
86 a rapid shift in the status quo of the academic community away from conventional publication
87 systems. Until this happens, a more rapidly effective approach to combating academic bullying
88 during peer review is needed.

89 **Suggested measures to limit peer review bullying.** The first step to addressing peer review
90 bullying is to recognize its subjective nature and to implement accountability mechanisms that
91 allow authors to report bullying behavior and to ensure these reports are taken seriously. This
92 mechanism should not be confused with editorial decision appeals, which deal strictly with the
93 scientific quality of the comments left by the reviewers and typically take weeks or even months
94 to be judged by editorial boards. Bullying reports must be considered swiftly, and if bullying is
95 proven, the reviewer's comments must be annulled. When a certain reviewer exhibits repetitive
96 bullying behavior, journals should blacklist them from their contact list as reviewers. While many
97 reviewers may not notice this, and some might view it as an opportunity to avoid their peer-review
98 responsibilities, restricting bullies' access to peer review will undoubtedly enhance the overall
99 environment. Journals might even consider contacting the institutions of the reviewers in question
100 to make them aware of the situation. Editors of society journals may reach out to their respective
101 associations, which are likely to have codes of conduct to restrict membership and benefits for
102 reviewers who engage in bullying behaviors. Editors should also pay particular attention if a
103 reviewer does not have an affiliation because these individuals cannot be held accountable for their
104 acts.

105 Another possible solution is to provide training programs for reviewers on how to write ethical
106 peer review reports. Training programs should not only focus on equipping reviewers with the
107 skills and tips necessary to write thorough, efficient, and ethical reviews but also emphasize the
108 primary role of a reviewer: to evaluate the science. Reviewers should not act as copy editors or
109 form prejudices based solely on the writing quality as good English does not necessarily equate to
110 good science and vice versa. This approach helps prevent bullying against minorities, who often
111 do not have English as their first language.

112 Broad-scale initiatives are also very important to limit peer review bullying. The Declaration on
113 Research Assessment (DORA) marked a significant milestone in academia. DORA underscored
114 the need to move away from relying on journal-based metrics, such as impact factors in judging
115 academic performance. A similar declaration focused on peer review could help address this type
116 of bullying especially since it is very likely that peer review bullying occurs more frequently when
117 a paper is considered for publication in a high-impact journal because elements associated with
118 human nature, such as envy [10], also play a role during peer review [11]. The use of impact factors
119 in judging academic performance needs to be abolished [12] and a close collaboration between
120 academics, universities, associations, editors and publishers is needed to develop and agree on best
121 practices for peer review.

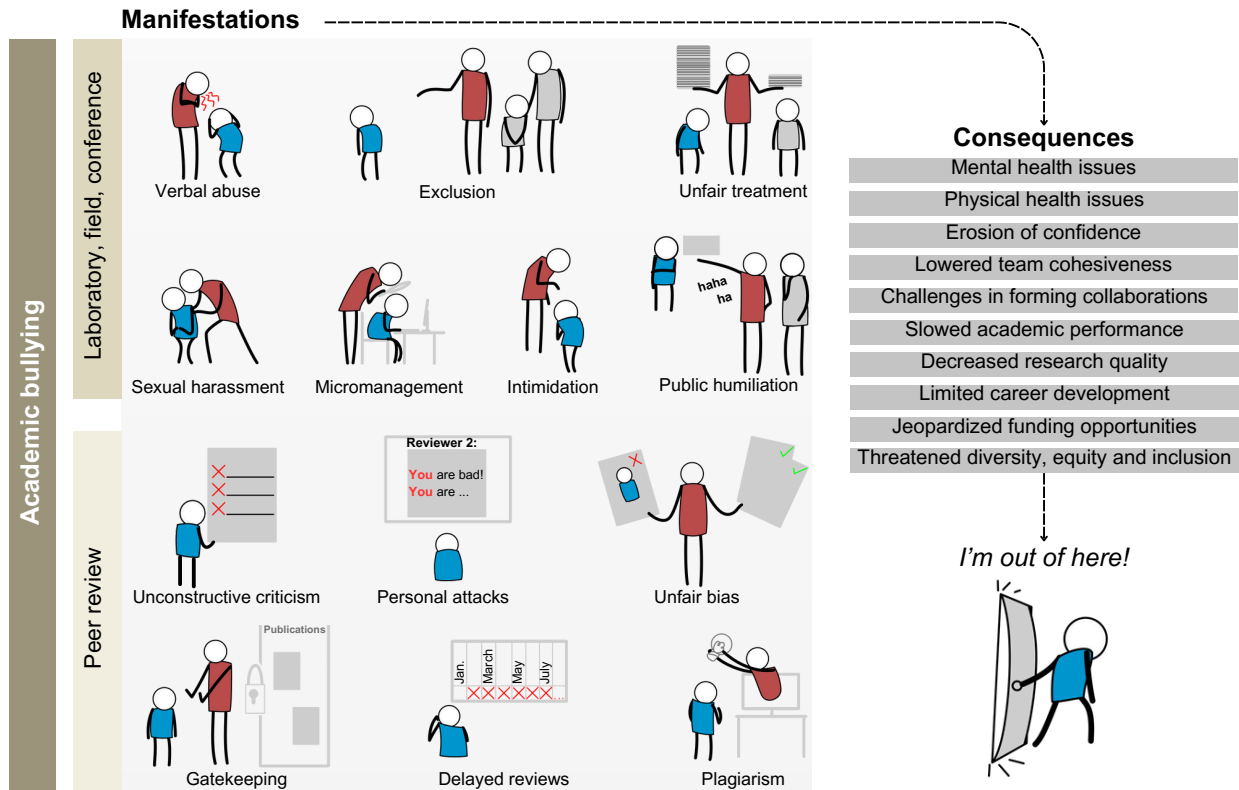
122 **Peer review bullying impacts diversity equity and inclusion.** Peer review bullying is more
123 likely to affect early career researchers (ECRs) and people from marginalized backgrounds [13]
124 (Figure 1). ECRs and minorities have less influence and authority in their fields and face hurdles
125 in gaining legitimacy making them more vulnerable to biases. Both ECRs and minorities may lack
126 access to mentors who can provide support in dealing with negative experiences. Considering that
127 ECRs often hold temporary positions, the negative impact of bullying can lead to higher attrition
128 rates among them [14], as they may choose to leave academia for more supportive and inclusive
129 environments. Dealing with peer review bullying is not straightforward and a tremendous effort is
130 needed to foster a healthy academic environment [15]. If left unaddressed, peer review bullying
131 will shrink the pool of talented researchers, drain diverse perspectives and innovative ideas, and
132 weaken the overall research ecosystem.

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Figure 1. Manifestations and consequences of academic bullying. Academic bullying manifests in various forms in the laboratory, in the field, at conferences, and during processes such as peer review. These manifestations result in numerous consequences that impact individuals, their academic institutions, and science as a whole. It is important to note that the consequences of academic bullying are not mutually exclusive; individuals who experience bullying often suffer from some, many, or all of these effects, which can compound their overall impact. The figure was made with Canva and Adobe Illustrator.