Blinded Versus Unblinded Review: A Field Study Comparing the Equity of Peer-Review

Single-blind reviews of conference paper submissions favor senior coauthors and disfavor Asian (versus white) authors more than double-blind reviews. Double-blind reviews slightly favor male authors more than single-blind reviews. Single- and double-blind review scores similarly predict subsequent publication in a journal.

Blind review is often discussed as a mechanism to level the playing field, creating more equitable merit-based evaluations across a range of domains, including employment, legal cases, and science. Past studies examining the effectiveness of blind review in achieving this goal have yielded mixed results, including in the few randomized experiments on the topic. In this paper, the authors evaluate the equity of blinded and unblinded review in a field experiment during peer-review of submissions for an academic conference.

The authors administer their field experiment in the context of reviewing the 530 submissions for the Society for Judgment and Decision Making’s 39th Annual Conference. They randomly assign each of the 113 reviewers to give either single- or double-blind reviews, and each paper submission receives at least three single-blind and three double-blind reviews. The authors compare single- and double-blind review in terms of their reliability and the differential impact of author and submission characteristics. They find the following:

• Both systems yield evaluations with moderate reliability after averaging across three or more independent reviewers. This level of reliability resulted in the review systems agreeing on 40% of the top submissions. This agreement level suggests that some differences between review systems emerge from noisy human judgment.

Blind review: a method where the reviewers of a paper, proposal, or research project do not know the identities of the authors, and often, the authors do not know the identities of the reviewers either

Single-blind review: a process where the identities of the reviewers are hidden from the authors, but the reviewers are aware of the authors' identities

Double-blind review: a process where both the identities of the reviewers and the authors are kept hidden from each other
• Single-blind reviews favor senior coauthors and disfavor Asian (versus white) authors more than double-blind review. Double-blind reviews slightly favored male authors more than single-blind reviews.

These results suggest that reviewers are influenced by some of the author identity cues that are only available in single-blind review. However, the analyses thus far do not determine whether reliance on these cues makes evaluations less or more accurate in identifying high-quality submissions. The authors next assess to what degree and how both single- and double-blind review ratings, as well as the characteristics available in single-blind review, are related to relevant outcomes, such as talk quality, talk popularity, and ultimately, paper publication. They find the following:

• For submissions selected for presentation, neither author characteristics nor the review process consistently predicted talk quality or popularity. Single- and double-blind review scores similarly predicted subsequent publication.

The results from this comparison of single- and double-blind review have important implications for the design and use of peer review for merit-based evaluations, not only of scientific work but in many other managerial situations as well. Arguably, this study’s social context involved a relatively small network of rather densely connected peers. These social conditions are likely to be present in many other settings that require merit-based performance evaluations performed by peers with shared expertise, including employment, consumer purchases, and legal cases. The authors suggest that their results are informative for these types of settings as well, although further research across different contexts is needed to assess generalizability.