Thinking beyond journal prestige in peer review

Journal prestige refers to the perceived status or influence of a journal. While there is no widely accepted definition of journal prestige, it is often mistakenly associated with the concepts of quality and impact[1] and is commonly shaped by various factors such as the journal impact factor (JIF), number of citations received, and journal ranking.

While journal prestige may hold contextual value and can indicate rigorous editorial standards, it should not be used as a proxy for the quality or impact of an article, or the excellence of a researcher and their contributions. Instead, journal prestige should only be considered alongside direct indicators such as the originality, rigour, and relevance of the article and/or the researcher's body of work.

Why prestige shouldn't be a proxy for quality and impact:

Research should be assessed on its own merits. Relying on journal prestige in isolation:

- Disadvantages emerging or interdisciplinary research[2].
- Inaccurately assumes that it can predict the quality and impact of research outputs[2,3,4].
- Leads to biases and misleading conclusions.

The Declaration on Research Assessment (DORA) is a global initiative that includes a set of recommendations related to improving the ways in which researchers and the outputs of scholarly research are evaluated. CIHR, NSERC, and SSHRC are signatories, supporting DORA's principles to promote research excellence[5].

"Do not use journal-based metrics, such as Journal Impact Factors, as a surrogate measure of the quality of individual research articles, to assess an individual scientist's contributions, or in hiring, promotion, or funding decisions[6]."

DORA's primary goal is the assessment of research on its own merits. From this central principle, several key recommendations arise[6]:

- Eliminating the use of JIF and similar metrics as a proxy for assessing research quality
- Evaluating the scientific content of the work directly
- Considering the full range of research outputs (including datasets and software)
- Using qualitative indicators of research impact

What is journal impact factor?

The JIF was introduced in the 1960s as a metric to help librarians select journals. It is now typically used to assess the importance of academic journals within their respective fields[7], reflecting the frequency with which articles published in the journal are cited within a particular year. The higher the impact factor, the more prestigious the journal is believed to be within the academic community[7]. The JIF was not intended to assess article quality or researcher performance[8].

JIFs are calculated by analytics company Clarivate and published yearly in *Journal Citation Reports*. Clarivate itself cautions against irresponsible use of JIF to assess individual articles and researchers[9].

JIF Formula

$$\frac{\text{Citations in Year X to articles published in Years X} - 1 \text{ and X} - 2}{\text{Total number of articles published in Years X} - 1 \text{ and X} - 2}$$

Why relying on JIF can be misleading:

❌ **Does not assess the quality or impact of individual articles!**

❌ **Has a short citation window:** The 2-year window dismisses long-term impact, disadvantaging newer journals[7], publications with slow-building impact[10], or disciplines with different publishing cultures.

❌ **Uses averages that mask article quality:** A few highly cited articles can raise a journal's JIF, even if most articles receive few citations[4].

❌ **Can be skewed by article type:** Review articles are cited up to three times more than original research articles, potentially inflating the JIF[11].

❌ **Is biased by discipline and language:** Articles published in English are often cited more[12] and citations vary across disciplines[4,13], giving some journals an advantage.

❌ **Is susceptible to manipulation and pressure-driven misconduct:** The JIF can be artificially boosted through practices such as self-citation/self-referencing[8].

❌ **Contributes to publication bias:** Since negative or null results are less likely to be cited[14,15], journals may reject the publication of such studies to preserve their impact factor, suppressing crucial data[15].

Best practices for peer reviewers – Do's and Don'ts

Do	Don't
✓ Focus on the actual content of the applicant's contributions when assessing quality — including originality, findings, methodological rigour, and clarity.	x Use JIF to assess the excellence of the researcher or research quality.
✓ Evaluate impact directly by considering how the work has advanced knowledge and/or understanding in the field, practical applications of the work, real-world outcomes (impacts on government, health, social or economic outcomes), etc. relevance, and influence.	x Rely solely on journal venue or prestige when assessing applications. These should only be considered in conjunction with direct indicators of quality and impact.
✓ Consider a broad range of outputs and acknowledge disciplinary differences.	x Don't equate citation counts with the value of the research.
✓ Follow CIHR, NSERC, and SSHRC guidance on the assessment of contributions to research.	x Don't reward quantity over quality.
✓ Reference the DORA Guidance on the Responsible Use of Quantitative Indicators in Research Assessment	

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