Journal of University Teaching & Learning Practice

Volume 19
Issue 5 *Quarterly Issue 3*

Article 02

2022

The ecology of peer review: Person-centred, strength-based, and self-determination perspectives

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Recommended Citation

Allen, K., Reardon, J., Walsh, L., Waters, L. E., & Wehmeyer, M. L. (2022). The ecology of peer review: Person-centred, strength-based, and self-determination perspectives. *Journal of University Teaching & Learning Practice, 19*(5). https://ro.uow.edu.au/jutlp/vol19/iss5/02

The ecology of peer review: Person-centred, strength-based, and self-determination perspectives

Abstract

The peer-review system, commonly considered critical for research integrity and rigour, has been criticised for being slow, exclusionary and exploitive. Concerns include the high profits of academic publishers as well as the growing number of insecurely employed academic staff who report high levels of stress and burnout. The consequence has been a decline in willing reviewers, publication delays, and potential damage to the career trajectories of early career researchers and PhD candidates at institutions that rely on metrics of academic impact as measures of academic performance. Rather than overhaul the system and undermine current benefits, this critical review adopts an ecological lens to posit an approach that is humanistic, transparent, and above all things, kind. This approach frames an applied perspective on how to improve peer-review moving forward.

Practitioner Notes

1. Peer-review has both challenges and benefits that need to be considered carefully.
2. The ecology of peer-review is complex and multifaceted.
3. The peer-review process should empower authors and reviewers, harness their strengths, and build a supportive framework.
4. Person-centred, strength-based, and self-determination perspectives can be used in peer-review.
5. There is a role for academics to improve the system and drive changes that are humanistic, transparent, and above all, kind.

Keywords

peer review, strength-based, person-centred, self-determination, socio-ecological

Introduction

A healthy peer review system is vital to academic publishing and the career development of academics who contribute to scholarly work (Ali & Watson, 2016; Kelly et al., 2014; Tennant, 2018). However, there are significant challenges to the current system, including time, labour, and the perception that peer review is a voluntary activity. Despite stemming from a solid scholarly tradition and relying heavily on a shared spirit of reciprocity, these factors may not be enough to counter *peer review resistance* when evidence already exists for a decline in willing reviewers (Publons, 2018) along with a growing sense of exploitation (Tennant, 2020). Several recommendations have been explored in response to a potential *peer review crisis* (Allen et al., 2022). In this paper, a critical analysis of various well-established psychological perspectives is undertaken to provide fresh insights and potential solutions to the peer review system. Adopting an ecological lens, we examine person-centred, strength-based, and self-determination perspectives to identify actionable changes that fall within the immediate control of reviewers, authors, and editors.

Pressure on the peer review system

Peer review refers to the process of reviewing an author's scholarly work by those with expertise in a similar field (Kelly et al., 2014). While many academics agree that peer review is critical for ensuring research integrity, a growing number have criticised it for being exploitative, relying on free labour, and preventing the freedom of good ideas through academic gatekeeping (Siler et al., 2014, see Allen et al., 2022 for a full review). Journal publishers, like Elsevier of The RELX Group, are listed among the world's most profitable companies (Meadowcroft, 2020). However, contributors, reviewers, and some editors often receive no financial compensation, a point of contention that is becoming increasingly problematic. Some consider it troublesome that the monetary value of time spent undertaking peer review in the United States is estimated to be equivalent to 1.5 billion USD annually (Aczel et al., 2021), yet there is no financial reward for peer reviewers.

The emergence of publishers such as Frontiers and Multidisciplinary Digital Publishing Institute (MDPI) – attractive outlets due to their metrics and open-access policies, but with a turnover of publications that exceeds well over a hundred thousand papers per annum (Bosworth & Santomé, 2021) – has placed increased demand on an already strained system. As an example, MDPI's *Sustainability* (Impact factor: 3.8; Cite Score: 5) published 14,051 documents in 2021. The journal's website (mdpi.com/journal/sustainability) promises, "Rapid Publication: manuscripts are peer-reviewed, and a first decision provided to authors approximately 16.7 days after submission; acceptance to publication is undertaken in 3.5 days". The need to accommodate such a large volume of manuscripts adds pressure to a system where academics report stress, burnout, and intentions to leave (Gewin, 2022). It is also a system that represents a large population of insecurely employed staff who have diminished paid time to engage in review, especially where many academics may prefer to invest in their own research that will invariably, and ironically, require peer review. The concern is a continued decline in the number of willing and able reviewers.

Early Career Researchers (ECRs), PhD candidates, and those who are insecurely employed may experience even greater disadvantages than tenured staff. In a system that relies heavily on active publishing for ongoing employment and promotion (Allen, 2019), and where rejection rates are already fierce (Allen et al., 2020), publication delays arising from reduced reviewer pools may disproportionately affect the likelihood of continued employment for those in more vulnerable positions. Anecdotal evidence suggests that the onset of COVID-19 saw both an

increase in research output and a reduction in the capacity of unwell or overwhelmed academics to engage in peer review. However, ECRs are not the most vulnerable to these challenges. It has been shown, for example, that women with family and care responsibilities experienced significant penalties during this period (Allen et al., 2021).

Another problem emerges from an editorial perspective, where reviewers are harder to find for lower-ranked journals, which could negatively affect diversity and representation in scholarly work. A recent article revealed that Q4 journals were more likely to support the work of diverse voices from a broader range of countries than higher-ranking journals (Mason & Merga, 2021). Academics may be less likely to review in lower-ranked journals due to the perception that they may receive less recognition. These multiple factors raise concerns about the efficacy of the current peer review system, especially concerning equity and research integrity.

An overhaul– at least in the way we approach the issue

As tempting as it may be to suggest that the peer review system should receive a complete overhaul, this kind of suggestion has the potential to further exacerbate known problems, causing unforeseen damage, such as fewer people wanting to review, increased delays, and poor-quality reviews, that may be difficult to undo. An overhaul also undermines the immense benefits the current system offers, such as maintaining the rigour and research integrity of science as a whole, and personal benefits of learning, development, and reciprocity. A functioning system means that academics also increase the chances that their work will be reviewed and published promptly (Boughton et al., 2018; Horbach & Halffman, 2018; Horner & Minifie, 2011). It is far more likely that beneficial outcomes will be achieved by working to improve the current system that we have inherited. The key to doing this is to make an explicit effort to be cognisant of the place of human beings in this system. It might be instructive to ask what person-centred ideas we can glean from the literature to improve peer review. Looking at various theoretical and transdisciplinary approaches may offer insights that help address current calls for change and alleviate pressure on the peer review system. Furthermore, examining these approaches through an ecological lens may facilitate the assessment of this ecosystem from a broader perspective, bringing into focus how parts of the system interact with each other, what factors enable, as well as erode information flow, and what barriers may be compromising the system's integrity.

The ecology of peer review

The problems of peer review are intertwined with factors within higher education institutions, the global system of knowledge transfer, and the power of journal publishers over individual scholars. With this in mind, understanding peer review as existing within an ecological context is helpful. Numerous ecological approaches have been applied to the sciences and the humanities (e.g., Ungar, 2011; Walsh et al., 2020). This paper draws from an ecological lens and is derived from a conceptualisation of education akin to a reef, in which various actors interact within, and are co-dependent on, an ecology or ecosystem (Hannon et al., 2011; Walsh, 2016). In the context of peer review, a university is home to scholars who engage with other key actors, such as peers, journal editors, and publishers, to disseminate knowledge. The peer review process does not occur in isolation but is dependent on those working within systems of knowledge production and distribution, forming an ecology that embodies a multifaceted context that includes a temporal dimension. Importantly to our approach is the social dimension of how the various actors interact within this ecology, particularly at the interpersonal level.

The ecology of peer review can first be conceptualised at the micro, meso, and macro levels. At the micro level, we locate at the centre of this ecology a hypothetical early career researcher who is considering becoming a peer reviewer. They might be hesitant to contribute to the process because they lack experience or even the opportunity because editors might not be aware

of their areas of expertise. They might lack sufficient time to undertake peer review. Indeed, the early years of many early career academics are preoccupied with figuring out how to prioritise their time and identify which aspects of their professional role are important (Sargent & Waters, 2004). For those receiving requests this becomes a heightened challenge because of the competing priorities of teaching, administration, and research. Such priorities might not be conducive to allowing the time required to review a manuscript. The potential reviewer's level of skill and confidence might also come into play. Reviewing a submission requires skills that are not necessarily developed explicitly on the job but implicitly and on an ad hoc basis. They also depend on the generosity of more senior colleagues to mentor and foster such skills. Notably, many of these early career academics are on a contract basis, which typically means that no financial reward is attached to the time and effort associated with reviewing.

Another challenge experienced by junior staff is the perceived threat of exploitation. The labour conducted by peer reviewers is often invisible. It is undertaken without direct payment or vicariously through a contractual position within the university. However, the major currency of many academics engaged and content in the peer review process is different: goodwill and reciprocity drive some academics to review for other peers as a proxy for payment. However, these incentives do not represent all reviewers and research suggests that the challenges of peer review are not confined to early career staff alone (Kelly et al., 2014).

Full-tenured professors also experience peer review pressure, but compared to junior colleagues, the sources of those stressors differ (Lashuel, 2020; Thorsen, 1996). Rather than carry concerns about a lack of opportunity to review, tenured staff can feel overwhelmed with the volume of invitations received, even within a single day or week. Requests to join editorial boards and provide editorial duties can coincide with feelings of guilt as professors grapple with work-life balance and family responsibilities. The pressures to attract grant income can come at a significant cost to time. Choosing to spend time peer reviewing an article over grant writing may seem imprudent, especially when grant writing may lead to the employment of junior staff, bring income into the university, and attract prestige leading to future funding. Rejecting a peer review invitation may only result in the review being redirected to someone else. Refraining from writing a grant application can result in a significant loss of opportunity.

Reviewing one to two papers for every published paper has long been a rule of thumb. However, assuming that this applies equally to all tenured staff is problematic. As a result of systemic inequities, women professors, for example, may be burdened with a heavier load of personal responsibilities than their male counterparts (Allen et al., 2021). Academics from traditionally or historically marginalised groups also face additional challenges (Griffin et al., 2013; Heffernan, 2022). A further potential concern for tenured staff is that the anonymity underlying blind peer review may not hold after decades of experience in the field. Professors in similar fields may become adept at spotting their colleagues' writing. While those at opposite ends of the career ladder face peer review pressure, it is safe to assume that everyone in between also feels these pressures. With stress, anxiety, and mental health problems common in the academy (Nicholls et al., 2022), along with increased rates of burnout and stress (Fernández-Suárez et al., 2021; Teles et al., 2020), some of the biggest challenges in the peer review system today may have to do with a lack of care, compassion, and empathy. Could approaches from person-centred and strength-based perspectives offer a more productive and solution-focused path forward?

A person-centred approach

Drawing from a person-centred approach (Rogers, 1951; 1961) may offer new perspectives for reviewers, editors, and authors. While the driving force behind the person-centred approach emerges from a therapeutic application, the idea that individuals who strive to fulfil themselves are best able to do this in a supportive context is also relevant to academic publishing. Where the purpose of person-centred therapy is to assist clients in reaching growth in an environment that makes them feel comfortable and aware of their thoughts, feelings, and meanings (Anderson, 2001), the purpose of scholarship is underpinned by growth also. That is, the growth and potential of authors and reviewers, are linked to career advancement and experience in writing, research, and publishing (Anderson, 2001; Rogers, 1961). Given that the person-centred approach has been applied to other aspects of academia, such as teaching (De Clercq et al., 2013; Rogers et al., 2013) and leadership (Murcio & Scalzo, 2021), it is not beyond the realms of possibility that the publishing and review process could also be approached from a person-centred perspective, framed through the three conditions of *genuineness*, *empathy*, and *unconditional positive regard.*

To foster genuineness and empathy, we might start by encouraging reviewers to be conscious of their feelings, attitudes, and moods concerning the paper they are reading. Reviewers can attempt to see the world through the author's eyes (Anderson, 2001), remove emotion in part for the process, and seek to provide strength-based, critical, yet constructive feedback, with the overall purpose of improving the paper for publication. In this sense, reviewers could consider themselves mentors. Explicit displays of empathy on the part of reviewers will help authors to feel understood and encouraged to continue to learn and grow in response to constructive criticism. For example, reviewers can suggest that a larger sample size is needed to strengthen the paper while signalling an understanding of the challenges of further data collection.

Unconditional positive regard would require that we see the true value in the author as a worthwhile human being, a perspective that must be maintained irrespective of any conflicting values or beliefs and regardless of the standard of the paper being reviewed. It is imperative that the feedback provided is communicated in ways that demonstrate positive regard and that comments about the paper's shortcomings are framed in a clear and non-judgemental manner. Reviewers can sometimes hide behind anonymity to write their reviews in harsh, judgemental ways leading to authors feeling attacked and the process feeling devoid of human connection, the opposite of positive regard. The pressures on reviewers outlined in the paper above, paired with issues of workload and limited time, can also result in reviews appearing short, blunt, and more critical than would be the case if reviewers had time to elaborate on their points carefully and thoughtfully. The attitudes and personalities of reviewers can also vary, with some more proficient in social and emotional competencies than others, which is an immense benefit for showing positive regard.

Academics can also extend positive regard to those involved in the review ecosystem when they receive journal review invitations from editors. For example, thanking the editor for thinking of them even if they cannot conduct the review, responding quickly if one is unable to review, and suggesting other potential reviewers, are all ways to show positive regard to the editor.

A strength-based approach

Linked with our call for the review process to be founded in a person-centred approach, we advocate explicitly fostering a strength-based approach into the review ecosystem. For the past three decades, strength-based science has grown across several fields, including the humanities, social work, medicine, business, sports science, and psychology (Rapp, 2008; Rusk & Waters, 2013). A strength-based approach seeks to create improvement and growth by starting with the elements that are currently working well (in order to then fix what is going wrong) (Frederickson, 2002). The peer review process is typically deficit-oriented, where the reviewer seeks to identify what is wrong with the paper and what needs to be fixed to bring the paper up to a publishable standard. This means that, in most cases, researchers receive negative feedback and only learn about what is wrong with their paper - a deflating experience after spending considerable time and effort on their work. Given the vital role of critical thinking needed to improve science and the deficit approach used by most reviewers, it is rare for an author to receive positive feedback about what they have done well.

Nevertheless, critical thinking is not synonymous with criticism, and there is a way to provide authors with constructive feedback that educates them about the strengths of their work while also providing clarity on what needs improving. Moreover, building feedback on strengths into the review system means that authors are clear about the positive aspects of their research and writing. This strength-based information can then be used to transfer those positive elements into future work, improving the author's skill and output.

Taking a strength-based approach does not mean the reviewer ignores the weaknesses in the paper under review. Instead, it means expanding the lens through which we seek to review and evaluate the merits of the paper so that the full paper - its gaps and its potential- is commented upon. By intentionally providing feedback about the paper's strengths (e.g., well-developed argument, innovative thinking, robust analysis, good study design, et cetera) the reviewer makes the feedback more generative and more developmental. Editorial Boards could foster a strength-based approach by designing templates for reviewers that ask them to provide feedback about the paper's positives and negatives. Presumably, those journals that are early adopters in formalising strength-based feedback are likely to see an increase in submissions because authors get more holistic and more developmental feedback from that journal, along with experiencing positive regard through the review process.

If journal editors were to explicitly adopt a strength-based approach to reviewing, this may provide a vehicle towards system-wide change and collective improvement in the quality of academic writing as authors would learn about how to develop the strongest aspects of their research and writing.

The role of other actors within the broader system

At the meso level, universities play a somewhat conflicting role in the peer review process. The invisible labour of peer review is needed to keep the system of knowledge exchange working; the labour of peer reviewers may be neither accounted for by the host institution as a performance metric nor incentivised within the given university. Alternatively, incentives to undertake peer review could also include more explicit workload allocations, which are allowed at some institutions but not others.

Another interrelated site at the meso level in this ecology is editors. Editors of scholarly journals also experience, to varying degrees, the pressures of increasing workloads and competing priorities. Pressures within this ecology are increasingly heightened by excessive reliance on a relatively narrow pool of reviewers, despite the growth of higher education. Such pressures are compounded by the increasing number of submissions many editors receive from academics

working in the rapidly expanding number of universities throughout the world. The combination of these pressures places excessive strain on the system. A person-centred approach at this level, as an example, would ensure that an editor sending a rejection letter harnesses the opportunity to convey empathy, offers opportunities for scholarly development, internally transfers the paper if the opportunity arises, or links to a senior academic willing to help authors by nurturing the paper to publication. If payment is possible, paying journal mentors should be a high priority that would be of immense benefit to authors, journals, and science as a whole. While a person-centred strength-based approach may create a system where people are more likely to partake in peer review, they still require the motivation to do so.

Human motivation and self-determination in peer review

Previous insights claim that reviewers would be more motivated if they were paid or had an alternative incentive (e.g., see Allen et al., 2022 for a review). However, this leaves the question, how have academics been motivated thus far, and given the multifaceted complexities of human motivation, what other factors might help compel increased motivation towards peer review?

Self-determination theory is an influential theory of human motivation that, at its essence, focuses on identifying social conditions that facilitate or hinder human flourishing. This occurs through "factors, both intrinsic to individual development and within social contexts, that facilitate vitality, motivation, social integration, and wellbeing" (Ryan & Deci, 2017, p. 3). The theory explains how biological, social, and cultural conditions either enhance or undermine the basic psychological needs for autonomy, competence, and relatedness.

Self-determination theory helps consider the peer review process through an ecological lens because this meta-theory intends to examine the impact of environments and contexts on wellbeing and intrinsic motivation. We do not talk much in academia about the motivation to serve as an editor, on an editorial board, or as an ad hoc reviewer, but motivations seem inherently tied to many of the dilemmas in the peer review process discussed previously.

Self-determination theory differentiates motivation into autonomous and controlled types, with types of motivation distributed across a continuum, from extrinsic to intrinsic: amotivation, external regulation, introjected regulation, identified regulation, integrated regulation, and intrinsic motivation (Ryan & Deci, 2000; Wehmeyer et al., 2018).

- **External regulation** refers to extrinsically motivated actions with an external perceived locus of causality.
- **Introjected regulation** refers to actions performed due to self-administered rewards or punishments.
- **Identified regulation** refers to actions that align with personally valued goals, but still might be externally regulated. The locus of causality remains external but aligning with personally valued goals makes such actions more autonomous and self-determined.
- **Integrated regulation** refers to actions in which the person has internalised the values of the task as consistent with his or her own intrinsically motivated actions.
- **Intrinsic regulation** is an internally motivated action arising from one's values and interests (Wehmeyer et al., 2018).

When editors and reviewers act based on efforts to promote intrinsic motivation (e.g., identified, integrated, or intrinsic regulation), personal well-being as an editor or reviewer could be enhanced. Moreover, it is through the satisfaction of the three basic psychological needs (autonomy, competence, and relatedness) that intrinsic motivation and the self-regulation of extrinsic motivations can be achieved (Ryan & Deci, 2000; Wehmeyer et al., 2018). Editing and reviewing contexts must be autonomy-supportive, build perceptions of competence, and enhance relationships and perceptions of being valued.

It is not difficult to see that the current peer review context falls short of achieving the above-stated goals. In a context where editors and reviewers (e.g., academics) report increased stress and burnout, and when the demand for reviewers is high, but the number of willing and able reviewers has declined, editorial roles, be they editor or reviewer, likely feel coerced and externally regulated. In rethinking the peer review context, what actions and processes might achieve the goal of enhancing basic psychological needs and intrinsic motivations or self-regulation of extrinsic motivations of editors and reviewers?

The movement to entirely online reviewing portals over the past two decades has reduced the number of duties typically performed by a managing editor or editorial assistant. This may have contributed to reviewers feeling stifled or detached during the review process. These systems have letter templates that are sent to register new reviewers, invite reviewers, remind reviewers of the due date for a review or of an overdue review, and thank reviewers for their review when it is submitted. From the point of view of the journal and editors, these are useful, but they can be frustrating for the reviewer who receives frequent emails. Further, these emails can feel impersonal.

Given the above context, how does an editor or associate editor promote reviewer well-being by supporting autonomy, competence, and relatedness? With respect to autonomy support, one consideration that may get lost in an automated system is the linkage between a potential reviewer's interests and the article for which a review is needed. Keyword searches in the reviewing portal system tend to be populated by forced choices (e.g., reviewers select from a predetermined set of keywords) that often fall short of identifying a person’s actual interests. If an article is within a reviewer’s personal areas of interest, that person may be more interested in reviewing it.

Further, when reviewing a paper in which one has a real interest, one’s sense of competence may be enhanced. It is impossible for editors and associate editors to be content experts on everything that is submitted to their journal, but probably the best way to find a match between the specific content in the paper and a reviewer with a real interest in that topic area is to do a search through the reference list for authors who have published on the same content. Another way may be to do a Google Scholar search for the specific content to identify potential reviewers. The key is to get papers before potential reviewers with a genuine interest in and knowledge of the paper's content.

This also speaks to issues of relatedness in the review process. In years past, an editor would reach out to people that the editor knew personally. Emails were from the editor's own email address. Now the templated invitation emails are so long that an invited reviewer can decline a review without scrolling down to see who was inviting them. There is a need to reintroduce that personal aspect to the process. Assigning editors can add personalising notes to the template email before it is sent, but the demands on the time of editors often preclude that from happening. There needs to be a re-emphasis on extending and building the relationship between the reviewer and the assigning editor and, even, the reviewer and the journal itself. Telling reviewers why they were chosen with an emphasis on their expertise and accomplishments is an essential way for an assigning editor to communicate that they know the invited reviewer

and value their work. This has the dual purpose of enhancing perceptions of competence among reviewers.

Further, editors telling reviewers in an introductory or invitation email something about themselves and why they value the process of editing that specific journal may provide the potential reviewer with a sense of connectedness to the editor and the journal. Furthering connectedness, inviting reviewers who have published in the journal can build a sense of belonging, that the reviewer is a part of a community that is doing important work. Ultimately, editors want to promote the sense among reviewers that they are doing meaningful work.

Concerning supporting perceptions of competence, in addition to some of the steps mentioned above, journals need to provide support for, particularly, early career scholars learning how to review and provide competence-supported feedback on the quality of one's review. Further, putting people on an editorial board rather than just frequently asking them to review can provide a sense of competence and enhance community and perceptions of relatedness.

Broader considerations are a must

Not everything is controlled by reviewers, authors, editors, and associate editors, especially when pitched against a macro-level global commercial environment in which publishing houses profit significantly from subscriptions and general sales. Publishers' positions at the apex of this ecology are not an academic matter, but rather one of profit. They have much to gain from an ecology reliant on free labour, goodwill and sometimes exploitation. Publishers provide the architecture through which publishing takes place, although the bedrock of that foundation is arguably higher education institutions at the meso level. Publishers depend on this bedrock to build a system where a critical exchange of scholarly knowledge occurs.

An aspect of the peer review ecology is temporal, in that some dimensions of peer review are misaligned with contemporary research practises. A good example is transparency. Transparency is seen as pivotal to the open sharing of knowledge; however, quite the opposite can be evident in the anonymised reviewing process used by most journals. While at a micro level, strength-based approaches are essential, at a macro-level, consideration of the actual strengths of journals and publishers could also become critical, especially how these strengths can be clear and transparent to potential reviewers.

With recent threats to peer review, a new type of journal classification system may be required, one that focuses on the strength of the system rather than its deficits. Not one that ranks journals based on a set of narrow criteria, but rather one that provides a transparent system that allows potential reviewers to properly assess whether they would like to review for the journal in the first place. Journals could visually display classifications in email invitations and on websites, much like *Open Science Badges* (Center for Open Science, n.d.), but rather than recognising key criteria of individual authors or manuscripts, *peer review badges*, shown in Table 1, could provide journal or publisher practice transparency. This will allow potential reviewers to make quick and informed judgements.

Table 1

Peer Review Badges

Badge	Name	Description
	Not-for-profit journal	The journal is cost neutral or funds returned to a membership body
	Impact factor	The journal has an impact factor
	Learned society	The journal is linked, sponsored, owned, or associated with a professional association, learned society, or membership body (e.g., their official journal). This includes journals published directly by its associated society or those published by a commercial publisher or university press.
	No fees or charges	The journal does not require an article processing charge (also called an Article Publishing Charge), or other fees or charges such as submission fees or page charges.
	Reviewer incentives	The journal offers reimbursement for peer reviewers such as financial compensation for the reviewer's time or general incentives for peer reviewers such as free subscriptions, publishing discounts, rewards for reviewers, or

Badge	Name	Description
		acknowledgement of reviewers.
	Reviewer resources	The journal or publisher houses resources and support materials for new reviewers. This may include professional development or guidelines available free of charge.
	Double-blind peer review	The identity of both the author and reviewer is anonymous. Also called double-anonymised
	Free open access	The final published version of the article is permanently and freely available.
	Ethical publishing standards	The journal adheres to publicly available ethical policy and practices related to publishing and peer review or is a member of an organisation such as the Directory of Open Access Journal (DOAJ), Committee on Publication Ethics (COPE), Open Access Scholarly Publishers Association (OASPA), and International Association of Scientific, Technical and Medical Publishers (STM).

Badge	Name	Description
	Indexed	The journal is indexed in a respected database (e.g., Web of Science Core Collection - SCIE, SSCI, AHCI, ESCI - Scopus, Medline, etc.)
	University press	A journal that is published by a university press.

Note. An open-access Creative Commons (CC-BY) high-resolution image of the 11 badges can be downloaded, distributed, remixed, tweaked, and built upon, even commercially, with credit for the original creation. See https://figshare.com/articles/figure/Peer_Review_Badges/20783659. Artwork by Von Bishop of Ivy Creative @ivy_creative.

The presence or absence of badges would not necessarily identify *good or bad* journals. Its purpose is to help reviewers identify the type of journal they are interested in supporting. To make the process more transparent, reviewer invitations could include the abstract, the number of pages, a link to the peer review policy, the number of days required for the review, the types of articles typically published, success or rejection rates, speed of publication, impact factors and indexing information, as well as the journal's typical audience. Potential reviewers may also be interested in the composition of the editorial board, for example, whether it is diverse and representative of a range of backgrounds, geographic diversity, experiences, and cultures, including representation of members with consideration to gender and career stage. Given that the current review process has been associated with the slow pace (Burley, 2017; Severin & Chataway, 2021) at which journal articles are reviewed, publication delays routinely occur. Transparency could provide potential reviewers with clear information to make informed decisions in a timely manner.

Concluding remarks

The current peer review system presents challenges and benefits for reviewers, authors, editors, and associate editors. With the advent of new publishing models, there has been an explosion in demand for reviewers, placing systems under ever more significant pressure. Increasing mental health problems among academics, insecure contracts, and exploitation concerns raised by ECRs and PhD researchers have become symptomatic of broader problems. However, the benefits of the current system cannot be ignored. Challenges should be weighed against the immense contribution peer review makes to science more generally, notwithstanding personal learning opportunities for millions of academics worldwide. By considering broader ecological issues, academics are reminded that they have immense power to change the peer review experience, not necessarily by rebuking the system, but by adopting approaches focused on empowering individuals, harnessing strengths, and working within a framework that is generally kinder and more supportive, as well as being considerate of academic motivation and wellbeing.

The current paper demonstrates how person-centred, strength-based, and self-determination perspectives can be leveraged to improve peer review systems, even within today's nuanced and complicated peer review ecology.

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