

A Study on the Operating Mechanism and Optimization Strategies of Reviewers' Academic Discourse Power from the Perspective of Academic Community

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Abstract

Objective: To explore the problems and obstacles in the exercise of academic discourse power by peer reviewers, identify strategies for enhancing reviewers' academic discourse power, and provide insights for optimizing the peer review mechanism. **Methods:** This study systematically reviews the peer review process, clarifies the rights and obligations of all stakeholders, establishes an operational mechanism model for reviewers' academic discourse power, and proposes optimization strategies based on the current state of reviewers' exercise of academic discourse power. **Results:** The proposed model can effectively simulate the peer review process under ideal conditions, providing a clear perspective for in-depth examination of the competitive dynamics among different participants vying for academic discourse power, and offering opportunities to identify strategies for enhancing reviewers' academic discourse power. **Conclusion:** Establishing standardized peer review procedures and comprehensive incentive mechanisms can provide better safeguards for reviewers to exercise their academic discourse power, fostering a healthy academic ecosystem and promoting academic prosperity.

Full Text

Research on the Operation Mechanism and Optimization Strategy of Reviewers' Academic Discourse Right from the Perspective of the Academic Community

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Abstract

[Purposes] This study explores the problems and obstacles in the exercise of reviewers' academic discourse right and proposes strategies for its enhancement, providing reference for optimizing the peer review mechanism. **[Methods]** We systematically 梳理 the review process, clarify the rights and obligations of each stakeholder, establish a model for the operation mechanism of reviewers' academic discourse right, and propose optimization strategies based on the current state of its exercise. **[Findings]** The proposed model can effectively simulate the peer review process under ideal conditions, offering a clear perspective for examining the game process through which different participants compete for academic discourse right and providing opportunities to identify strategies for enhancing reviewers' academic discourse right. **[Conclusions]** Establishing standardized peer review procedures and a comprehensive incentive mechanism can provide better safeguards for reviewers to exercise their academic discourse right, promote the formation of a healthy academic ecosystem, and foster academic prosperity.

Keywords: reviewers; peer review; academic discourse right; academic community; journal editorial board

For a long time, the peer review system has played a crucial role in ensuring the quality of research outcomes, promoting the high-quality development of academic journals, and fostering a sound academic ecosystem. However, it must be acknowledged that due to limitations in review costs, efficiency, and technical means, traditional review models have involved relatively few participants, confined to private reviews by experts and editorial boards. With the rise of open science, the number of participants in review activities has expanded significantly, and review models have become increasingly complex and diverse. Traditional models can no longer satisfy the academic community's strong demand for information openness, freedom, transparency, and sharing. To improve the peer review system, academia has proposed new models such as transparent peer review [1-2], open peer review [3], and third-party review [4]. While these have made significant progress in accepting scholarly supervision and enhancing transparency, their widespread adoption still faces many obstacles due to factors such as reviewers' reluctance to disclose their identities [5], increased psychological burden [6], and the absence of relevant institutional frameworks [7].

In essence, peer review centers on whether expert opinions receive due attention and implementation, and on creating an environment where experts dare to speak truthfully and contribute their intellectual efforts. In the context of open peer review, reviewing is no longer a private examination activity; an increasing number of stakeholders have become involved in the review process and

check each other. High-quality review activities require the joint participation and effective collaboration of authors, journal editorial boards, reviewers, and academic community members. Therefore, in-depth research on the operation mechanism and safeguard measures of reviewers' academic discourse right is of great significance. Currently, although reviewers bear the heavy responsibility of controlling manuscript quality, safeguarding journal academic standards, and upholding correct evaluation orientation, their academic discourse right remains generally weak, and their motivation to participate in review activities and journal development is insufficient. While a few studies have addressed issues related to the exercise of reviewers' academic discourse right, such as codifying peer review requirements into laws and regulations or clarifying rights and responsibilities through labor contracts [8], research that thoroughly examines its operation mechanism and safeguard measures remains scarce. This paper analyzes the operation mechanism of journal reviewers' (external experts') academic discourse right from the perspective of the academic community, identifies existing problems, and proposes optimization strategies to provide reference for standardizing peer review behavior and creating a fair and efficient academic evaluation environment.

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2.1 Connotation of Reviewers' Academic Discourse Right

On the surface, reviewing appears to be a process where reviewers exercise their power and affix an “expert-certified” label to manuscripts. However, its essence is a necessary procedure representing the academic community's fulfillment of review obligations: it is both a process of diligently performing academic examination and certification duties to produce credible reports, and a process of helping authors eliminate errors and transform personal knowledge into public knowledge within a professional field. A thorough examination of the internal logic of the entire academic communication system reveals that reviewing is a typical academic credit-trust behavior [9]. Within the academic field, reviewers' academic discourse right stems from the academic community's trust in and expectations for the peer review system, reflecting society's trust in and respect for academic authority, professionals, and responsible academic evaluation. Review reports fully embody reviewers' knowledge and professional competence, and reviewers must take responsibility for their opinions.

Based on the above analysis, reviewers' academic discourse right is a role-based

authority necessary for them to evaluate and grade manuscripts using professional knowledge, leverage professional expertise, fulfill academic gatekeeping obligations, and exert decisive influence on final publication decisions. Reviewers are the core element of the peer review system, and the actual influence of their academic discourse right is primarily manifested in whether editorial boards value their opinions when making final decisions, whether authors adopt their suggestions, and whether academic community members recognize the review outcomes. The issue of reviewers' academic discourse right not only concerns individual reviewers' motivation but also affects journals' academic standards, attractiveness, and leadership capacity. Excellent journals typically trust and rely heavily on a large pool of outstanding reviewers to strengthen positive interaction with the academic community and continuously accumulate academic reputation and credibility.

2.2 Operation Mechanism Model of Reviewers' Academic Discourse Right

Based on the roles, functions, and processes of exercising academic discourse right of relevant stakeholders in conventional review procedures, we constructed an operation mechanism model of reviewers' academic discourse right (see Figure 1 [Figure 1: see original paper]). In this model, manuscript authors select target journals for submission; after receiving manuscripts, the editorial board conducts preliminary review and, upon approval, selects appropriate reviewers based on manuscript content; reviewers examine the manuscripts and submit their reports to the journal management platform; the editorial board integrates opinions from multiple reviewers and decides whether to accept them; the editorial board feeds back review results to authors and reviewers and appropriately discloses valuable information; and academic community members supervise and evaluate the entire review process.

Figure 1 depicts the general process through which different stakeholders self-organize to control the production order of professional knowledge in an open environment, revealing the micro-level game process through which parties compete for academic discourse right in review scenarios. When a journal invites a reviewer, the reviewer has the right to decide whether to accept. If accepted, the reviewer must complete manuscript examination and certification within the agreed timeframe and provide recommendations in the form of review reports. Authors' personal knowledge expressed in manuscripts typically requires "expert certification" through peer review to gain "legitimacy" and enter the academic communication system as public knowledge within the professional field. Generally, authors are both creators of knowledge and objects of reviewers' exercise of academic discourse right, and their adoption of review comments also reflects the influence of reviewers' academic discourse right to some extent. The editorial board serves as a medium in the process of reviewers exercising their academic discourse right, providing an effective communication link between authors and reviewers while regulating and constraining both parties' behaviors.

Academic community members act as witnesses to review activities, supervising them from an external observer perspective. In short, the operation mechanism model of reviewers' academic discourse right provides an effective analytical framework for comprehensively understanding reviewers' contributions in professional fields, ensuring fair and just review activities, and reducing intellectual waste in academic communication.

2.3 Analysis of the Operation Mechanism of Reviewers' Academic Discourse Right

(1) Rights and Obligations of Reviewers In the review process, reviewers possess the rights of choice, academic review, academic certification, academic suggestion, and countermeasure, among which academic review and certification rights are direct manifestations of their academic discourse right. First, the **right of choice** refers to reviewers' freedom to decide whether to accept a journal's invitation, which serves as a powerful guarantee for them to freely select manuscripts and effectively exercise their academic discourse right. Second, **academic review right** enables reviewers to conduct substantive examination of manuscripts' scientific validity, authenticity, and normativity to determine whether they meet publication standards. Third, **academic certification right** allows reviewers to make value judgments on manuscripts with brief justifications after careful examination. Fourth, **academic suggestion right** permits reviewers to propose personal recommendations for manuscript improvement. Fifth, **countermeasure right** means that when journals disrespect or completely ignore reviewers' critical opinions, reviewers may reserve the right to politely decline future review invitations.

While exercising these rights, reviewers must fulfill corresponding obligations. First, they must **perform supervisory duties to prevent low-quality manuscripts from entering the academic communication system**. Reviewers should effectively fulfill their role as "academic gatekeepers," fully exercising their academic discourse right in manuscript quality certification, and supervise behaviors that involve fundamental issues or disrupt knowledge production order. They should uphold correct values and evaluation orientation, identify errors and irregularities in manuscripts, resolutely point out intentional obfuscation of others' contributions or violations of academic ethics and norms, and help journals screen high-quality academic outcomes from the source. Second, they must **identify innovative aspects of manuscripts and encourage authors to conduct in-depth research**. As scholars engaged in frontier research, reviewers have both the capability and responsibility to conduct comprehensive professional examination of manuscripts, evaluating not only the manuscripts' value but also identifying outstanding authors. They should dare to use their academic discourse right to encourage, support, and nurture budding knowledge innovations for the benefit of society. Third, they must **write fair review reports to assist in manuscript improvement**. In review activities, editorial boards trust reviewers' knowledge and

judgment capabilities in specific professional domains. Entrusted reviewers should promptly feedback professional-level review reports, provide pertinent suggestions for authors to improve manuscripts, enable qualified papers to enter the academic communication system promptly, and promote information sharing and academic progress.

(2) Rights and Obligations of Authors Authors are producers of professional knowledge and initiators of the review process. They possess the rights of submission, academic credit-trust, choice, and debate, enabling them to submit manuscripts to journals, recommend reviewers, receive feedback, and report on their adoption of suggestions. First, the **right of submission** is authors' most fundamental right in expressing their academic discourse right, allowing them to submit their achievements for recognition and dissemination. Second, the **right of choice** enables authors to select well-matched journals based on positioning and other factors, representing an important right that influences whether their work gets published. Third, **academic credit-trust right** allows accomplished authors to proactively introduce their manuscripts' innovations in cover letters to request expedited review. This self-recommendation demonstrates authors' confidence and sincerity, indirectly indicating high academic value and manifesting their exercise of academic discourse right. Fourth, the **right of debate** allows authors to request detailed feedback or file appeals when receiving perfunctory rejection letters after long waits or when disagreeing with review comments. This right is crucial for authors to assert their academic discourse right and improve review quality, constraining irregular review behaviors to some extent.

To improve review efficiency, authors should cooperate with reviewers to the best of their ability. First, they must **submit mature manuscripts and strictly adhere to academic norms**. Academic papers are vehicles for scholars to exchange ideas and share intellectual achievements, not tools for pursuing practical interests. Submitting mature manuscripts is a basic professional quality. Authors should ensure content authenticity and logical rigor, avoiding excessive consumption of review resources and overdrafting reviewers' enthusiasm for supporting public academic affairs due to elementary mistakes. Second, they should **truthfully introduce their achievements' highlights and recommend appropriate reviewers**. When writing cover letters or recommending reviewers, authors should be truthful, avoid self-aggrandizement, and refrain from recommending reviewers with conflicts of interest. Third, they must **value review comments and revise carefully**. Review comments represent journals' and reviewers' evaluation and certification of papers, aimed at helping authors improve their work. Authors should carefully analyze and reasonably adopt expert suggestions. For perfunctory or biased comments, they may communicate rationally with editorial offices, question appropriately in academically normative ways, and politely explain reasons for non-adoption.

(3) Rights and Obligations of Journal Editorial Boards As shown in the model in Figure 1, editorial boards are crucial media for reviewers to ex-

ercise their academic discourse right and key links for effective communication between authors and reviewers. Editorial boards typically consist of editors-in-chief/associate editors, editorial offices, and editorial committee members. The editorial office handles daily operations, but actual structures and functions vary significantly across journals, with some having only nominal editorial committees. Editorial boards possess academic review, selection, and adjudication rights. First, **academic review right** allows editors to examine manuscript format, research topics, scientific validity, and academic norms according to relevant standards and criteria, representing an important right for journals to guarantee publication quality and discourse effectiveness. Second, **selection right** enables editorial boards to determine whether manuscripts enter external review and to select appropriate reviewers based on author recommendations and the journal's reviewer database. Reviewer selection significantly influences the effectiveness of reviewers' academic discourse right, and choosing appropriate reviewers helps enhance both journals' academic reputation and reviewers' academic discourse right. Third, **adjudication right** is editorial boards' direct manifestation of academic discourse right—the right to make final publication decisions. When reviewers submit their reports, editors-in-chief and core board members make final rulings in editorial meetings or final decision sessions by referring to external review comments.

As intermediaries between authors and reviewers and important factors influencing reviewers' exercise of academic discourse right, editorial boards should create necessary conveniences for reviewers. First, they should **provide necessary training and information support to help reviewers become excellent reviewers**. Reviewing is highly specialized academic examination and certification work that requires not only high academic quality and professional judgment capabilities but also familiarity with review standards and responsibilities. However, although reviewers are mostly accomplished authors, they rarely receive systematic review training, leading to diverse understandings of normative exercise of academic discourse right and inevitable flaws in their review reports. Providing necessary training and guidance would significantly improve review quality. Second, they should **manage scientifically and listen to multiple opinions**. Since reviewers have varying academic cognition levels and professional qualities, editorial boards should adopt scientific management systems, such as Group Peer Review (GPR) [10], to draw collective wisdom from reviewer groups, and may also feedback other experts' review comments and authors' revisions to reviewers. Third, they should **adopt diverse measures to incentivize reviewers to contribute their wisdom**. Some journals award "Outstanding Reviewer" certificates to active reviewers and publicize them on official websites or social media platforms. However, beyond this, review work generates little social impact and provides no assistance in promotion reviews, project applications, or enhancing academic reputation. Therefore, journals may offer incentives such as inviting outstanding reviewers to submit papers, awarding them, recommending them for editorial board membership, or waiving publication fees, thereby fully recognizing reviewers' high-quality labor

within their capacity. Fourth, they should **optimize review processes to provide convenience for reviewers and authors**. Since most reviewers are university faculty with heavy workloads, editorial boards may establish “expedited review” channels for innovative manuscripts with author recommendation letters. In this scenario, reviewers only need to quickly assess a paper’s value and innovation without detailed examination of language, logic, or expression, significantly reducing workload, improving review efficiency, and shortening authors’ waiting time. Of course, journals need to design reasonable supporting measures to prevent abuse of academic trust.

(4) Rights and Obligations of the Academic Community Ensuring the sound operation of reviewers’ academic discourse right requires not only mutual constraints among stakeholders but also external supervision. Academic community members possess the rights to know, supervise, and evaluate. First, the **right to know** entitles members to understand peer review principles, processes, and results. Second, the **right to supervise** allows members to oversee the peer review process. Third, the **right to evaluate** enables members to conduct academic assessments of publicly available review comments, criticize unreasonable aspects, or propose improvement suggestions.

As both participants in and witnesses to the review process, the academic community bears important supervisory responsibilities in ensuring the functioning of academic operation mechanisms. Peer review is a crucial component of academic journal quality control, and with the advancement of open science, peer review models are trending toward transparency and openness, with open peer review potentially becoming an important future model. Open peer review is both pressure and motivation: on one hand, it enhances the academic community’s sense of honor and responsibility, promoting active participation in academic exchange and accelerating knowledge innovation; on the other hand, it provides community members with opportunities to deeply learn from the exchange process between reviewers and authors, and their re-evaluation of review comments can further 督促 reviewers to improve review quality.

3.1 Optimize the Review Process to Support Reviewers in Fully Expressing Academic Opinions

In the traditional three-review system, reviewers independently examine manuscripts based on past experience, resolving information support needs for decision-making on their own. Under this model, reviewers lack peer references, and evaluation results depend on individual judgment capabilities, potentially leading to review comments influenced by subjective factors. If the current review process could be optimized by adding feedback mechanisms that integrate different reviewers’ comments and author response information before feeding them back to reviewers, it would help reviewers better grasp manuscript progress.

Scientific and efficient review activities require reviewers to effectively exercise

their academic discourse right and fully express personal opinions, forming relatively accurate collective judgments through in-depth exchanges. By referring to peer opinions and author responses, reviewers can develop more comprehensive understanding of the issues discussed in manuscripts, eliminating adverse effects of personal biases and exercising their academic certification and review rights more scientifically. For high-quality review comments, journals may publish them publicly with online commenting functions, expanding the audience for reviewers' academic opinions.

3.2 Improve Incentive Measures for Reviewer Contributions to Mobilize Enthusiasm for Academic Discourse Expression

With the transformation of research paradigms, interdisciplinary integration has become the trend. The number of manuscripts is increasing, and their content is becoming more diversified, requiring reviewers to invest substantial time and effort to learn and digest them before they can handle the heavy workload of manuscript examination. However, corresponding information support environments, review service levels, and social recognition have not improved, and reviewers' diligent labor has not received reasonable compensation, which will inevitably affect their enthusiasm for expressing academic opinions over time.

Currently, some journals have recognized these issues and taken corresponding measures. Foreign reviewers can use platforms such as Publons or Reviewer Credits to view their review records, documenting and tracking all their review activities on the Internet. Some Chinese journals are also taking action: for example, *Journal of Practical Orthopedics* publishes annual lists of outstanding reviewers on its official website and provides rewards including waiving one publication fee, offering a complimentary annual subscription, and recommending reviewers for editorial board membership. Journals such as *Library and Information Service* and *Knowledge Management Forum* have also adopted practices like publishing outstanding reviewer lists and offering free subscriptions. However, these measures have not been widely promoted, and the academic community still does not pay sufficient attention to reviewers' contributions to public academic affairs. Long-term peer review practice in academic journals demonstrates that outstanding reviewers' academic strength and opinions are trustworthy. Building on these academic recognition measures, universities and research institutions could also incorporate reviewer contributions into funding applications, promotion reviews, and resource allocation, making review contributions credible evidence of reviewers' academic and social influence. Only when reviewers' academic contributions receive recognition can the effectiveness of their exercise of academic discourse right be substantiated.

3.3 Standardize Supervision Mechanisms to Enhance Reviewers' Awareness of Rights and Responsibilities

In the context of open peer review, social supervision mechanisms transform reviewing from a private internal journal examination into a public process,

and reviewers are passively exposed to the public. Related open and transparent measures help the academic community and society better understand reviewers' academic contributions, thereby providing more recognition and support, but they may also create greater psychological pressure for reviewers. For potentially controversial manuscripts, reviewers might adopt more "lenient" review strategies to avoid unnecessary trouble. Therefore, on one hand, standardized supervision mechanisms should be established to encourage moderate involvement of the academic community in review activities, actively exercising supervision rights to subject review activities to community oversight and evaluation, preventing abuse of academic discourse right. On the other hand, reviewers should correctly understand the impact and challenges brought by open peer review, actively fulfill their review duties with a professional and responsible attitude, continuously improve their professional service capabilities, and reasonably use their academic certification and suggestion rights to select outstanding achievements for the academic community.

Peer review is an effective mechanism for mobilizing the academic community to participate in review as a public academic affair. However, current understanding of the rights and obligations of different participants in review activities is incomplete, and there is a lack of deep recognition of the importance of reviewers' academic discourse right in safeguarding academic quality. This paper constructs an operation mechanism model of reviewers' academic discourse right centered on review activities, systematically analyzes the rights and obligations of different participants, and proposes optimization strategies for ensuring reviewers' effective exercise of academic discourse right. Since the academic community entrusts reviewers with the important "gatekeeping" responsibility, it must provide them with necessary trust and support. This paper calls on all sectors of society to respect reviewers' academic discourse right and provide support and guarantees for their full expression of academic opinions, while also recognizing reviewers' labor and making review contributions credible evidence of their academic strength and influence to help them accumulate academic reputation. Reviewers should also realize that society's respect for their "academic discourse right" as a form of "public power" stems from support for academic innovation and respect for diligent academic service work. Only by reasonably exercising academic discourse right can they live up to the academic community's trust. Reviewers' academic discourse right is a flexible, non-public power temporarily delegated by journal editorial boards, originally intended to leverage peer experts' strength to better ensure academic paper quality. However, the actual operation may involve complex games where individual experts or schools forcefully advocate their academic opinions or research paradigms, with pros and cons worthy of in-depth study. We look forward to more colleagues participating in this discussion.

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