Peer Review: Theory, Practice, and Prospects in China

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Peer Review, Research Integrity, and the Governance of Science, which is co-edited by three well-known American scholars, is published by People's Publishing House in the Philosophy and Management of Science & Technology Series. On the occasion of its publication, I have been invited to contribute a general introduction. Although I have worked on the ethics of science for many years, the issue of peer review is relatively new to me. But I have taken the present occasion to review some scholarly work in this area and to offer some reflections related to the context of Chinese theoretical research and institutional practice. This book is mainly based on the perspective of the United States, but it attempts to make comparisons between the United States and other countries. So I use this opportunity to consider theory, practice, and future developments in China. This can complement the other contents of the book and will also promote the comparative study of peer review between China, the United States, and Europe.

Following a general account of theoretical research on peer review in China (in part one) I turn to the practical evolution of Chinese peer review (in part two). Part two includes a brief overview of the history of peer review in China and of the practical use of peer review in the same context.

Historically, the establishment of the Chinese science funding system and the National Science Foundation of China (NSFC) grew out of the reform and opening-up movement that began in the 1970s. It was a significant action to introduce peer review into allocations of scientific research resources, and this action further enabled scientific research management in China to be geared to international standards.

In the early 1980s, in order to promote the reform of scientific and technological institutions and alter the procedures for allocating research funds, 89 Chinese Academy of Science (CAS) members wrote to the Central Committee of the Communist Party of China (CPC) and the State Council with the proposal to establish a science foundation to support national scientific research. This proposal was eventually endorsed by the Central Committee of CPC and the State Council.

Since its founding in 1986, the National Science Foundation of China (NSFC) Policy Bureau has translated a series of reports on evaluating and studying peer review practice conducted by science funding agencies outside China: the United States General Accounting Office (GAO) report to Congress that compared different mechanisms of peer review practice between the US National Science Foundation (NSF) and National Institutes of Health (NIH), an evaluative report on the UK Research Council's peer review practice, and a report on the NSF merit review process. All these reports were compiled in order to understand the states of and trends in peer review policy in developed countries.

Following the overview of such developments in China not only in NSFC but also in the National Philosophy and Social Science Foundation of China and the practice of peer review in the Humanities and Social Sciences Foundation of the Chinese Ministry of Education, I turn in part three to prospects for the further development of peer review in China. In this concluding section I propose five fundamental principles for future peer review practice in China: openness, fairness (justice), appropriateness, effectiveness, and economic efficiency. Such principles can serve as the basis for continuing comparison, dialogue, and study of peer review, research integrity, and the governance of science.