

Ethics of Peer Review: A Guide for Manuscript Reviewers

Case studies

Sara Rockwell, Ph.D.

Departments of Therapeutic Radiology and Pharmacology,
and Office of Scientific Affairs,
Yale University School of Medicine

Case # 1

- Professor Smith runs a very active, productive research laboratory with several graduate students and postdocs.
- He is a well regarded scientist who reviews many manuscripts and serves on study sections and other review panels.
- Dr Smith makes an effort to help his trainees develop their communication skills: they give talks in group meeting, seminars in the department, and papers at meetings and they write reports and papers.

Case # 1 continued

- To help his trainees understand the peer review system, Dr Smith frequently has them help to review manuscripts.
- Some of his postdocs have become quite skilled; their reviews need virtually no editing before Dr Smith signs them and sends them to the journals.
- Dr Smith is surprised when a colleague says that this practice is not ethical.
- Are there ethical issues?

Case # 1, Issues to consider

- The confidentiality of the review process
- Taking credit for the work of others
- Misrepresentation to journal
- Fairness to the trainees who perform the reviews

Case # 2

- Dr. Ardito, a postdoc, is asked by the editor of a major journal in her field to review a manuscript.
- She is sent the authors, title, and abstract for her use in deciding whether to perform this review.
- Dr. Ardito realizes that some of the studies contained in the paper must be very similar to those included in a paper she submitted to the same journal a few days before.
- What actions should she take?

Case # 2, Issues to consider

- Are there ethical issues that would preclude her from reviewing the paper?
- Are there other potential issues that should be discussed when Dr Ardito contacts the editor of the journal?

Case # 3

- Dr Li, a physician, has agreed to review a paper presenting a phase III clinical trial testing a new treatment for cervical carcinoma.
- As she reviews the paper, she finds she has questions and concerns about the statistical analyses used in the paper.
- Dr Li collaborates with an expert statistician in the design and analysis of her own trials and would like to seek his advice on the analyses in this paper.
- What issues should she consider and what steps should she take?

Case # 3, Issues to consider

- Confidentiality
- Journal policy regarding consultation; is advance permission from editor needed?
- Acknowledgements of the contributions of others in correspondence with journal

Case # 4

- Dr. Hess is reviewing a paper for an American genetics journal.
- As he reads the paper, it begins to seem very familiar.
- He looks in his files and finds a very recent article by the same authors, published in a conference proceedings in a supplement to a European Journal.

Case # 4, continued

- This published article is virtually identical to the article under review.
- The same data are presented in the figures and tables, the same conclusions are drawn, and even the wording of the text is virtually identical in the two papers.
- What should Dr Hess do?

Case # 4, Issues to consider

- Duplicative publication
- Problem of how to handle appropriately a situation which could well develop into an allegation of scientific misconduct
- Responsibilities of reviewer
- Responsibilities of editor

Case # 5

- As Dr Santos is reviewing a paper reporting preclinical studies on a potential anticancer drug, she becomes concerned about the ethics of the studies.
- Because Dr Santos is a member of her institutional animal care and use committee, she knows that the experimental design and the procedures described in the paper would not be approved by her IACUC and are not in accord with the principles in the USPHS Guide to the Care and Use of Laboratory Animals.

Case # 5, continued

- Moreover, she finds no mention in the Methods section that the studies were reviewed or approved by an IACUC or its equivalent at the authors' institution.
- What should Dr Santos do?

Case # 5, Issues to consider

- Policy of journal (most journals have explicit policies requiring high ethical standards for studies involving human subjects or animals)
- Need for documentation and explanation of the specific ethical issues
- Need to identify the problem in the comments to the editor
- Need to identify the problem in the comments to authors

Case # 6

- Dr Arundel is asked to review a paper by a group of authors at VERNICE University.
- Dr Arundel has recently been invited to look at a position in the authors' department at VERNICE; a preliminary visit and seminar have been scheduled.
- Should Dr Arundel review this paper?

Case #6, Issues to consider

- Conflicts of Interest
 - Real
 - Apparent

Case # 7

- Dr Sun is invited to review a very interesting manuscript, which has been submitted for expedited publication.
- The invitation specifies that the review must be returned within 5 days.
- Dr Sun is about to leave for meetings in Paris, and will not be able to return the review for 2 weeks.
- Dr Sun is very eager to see the manuscript and thinks that he would be an excellent reviewer for this paper.
- Can he accept this invitation?

Case # 7, Issues to consider

- Obligations incurred in agreeing to review
 - Acting as an agent of the journal
 - Agreeing to adhere to journal policy
 - Obligation to provide a high-quality critique in the time specified by the journal
- Conflict of interest?

Case # 8

- Dr Takahashi, an assistant professor, has been asked to review a paper describing a phase III clinical trial of an investigational drug in the treatment of Alzheimer's disease.
- Dr Takahashi has no personal conflicts of interest related to this research, but her department chair has a major research contract from the company that owns and makes the drug.
- This contract provides research support for several faculty members in the department, including some of Dr Takahashi's collaborators.
- Should she review this paper?

Case #8, Issues to consider

- Conflicts of interest
 - Personal
 - Institutional
 - Real
 - Apparent

Case # 9

- Dr Elway agrees to review a paper testing the effects of several potential anticancer drugs.
- In this work, the researchers used a cell line Dr Elway developed 20 years ago.
- Dr Elway has made this cell line widely available. He has sent cultures to dozens of researchers without cost and has donated stock cultures to two non-profit cell repositories for distribution to any researchers who request them.

Case # 9, continued

- When Dr Elway receives the full paper, he realizes that the methods cite him as providing the cell line and that the acknowledgements thank him for this.
- Should this preclude him from reviewing the paper?

Case # 9, Issues to consider

- Real conflicts of interest
- Apparent conflicts of interest

Case # 10

- Dr. Tomas has just reviewed a very interesting paper for a Neurology journal and has recommended publication.
- At a reception at a national scientific meeting, she is introduced to the first author of the paper, whom she had not met previously.
- Dr Tomas would like to talk to the author about the work described in the paper .
- Can she tell the author she has reviewed the paper?

Case # 10, Issues to consider

- Policies of journal
- Confidentiality of review process
- Problems arising from false expectations if other reviewers were less enthusiastic

Case #11

- Dr Yang is a very hardworking young scientist who is determined to build his research program.
- He and his trainees publish several articles each year in the peer reviewed journals in his field.
- He is frequently asked by these same journals to review papers.
- He always declines, because he feels reviewing papers would take away from the time he can spend on his own research and writing.
- Does this decision raise ethical issues ?

Case # 11, Issues to consider

- Responsibilities of researchers to colleagues and other researchers
- Responsibilities of researchers to society
- Fairness

Case # 12

- Dr. Jones agrees to review a paper which sounds from its abstract as though it contains very exciting and novel gene array studies that showing unexpected changes in gene expression during fetal development.
- Upon receiving the paper, Dr Jones is very disappointed.
- The paper is not from a major western research university, but rather from an unfamiliar group of authors at a small college in South America.

Case #12, continued

- The experiments are appropriately designed, the data appear solid, and the findings are quite interesting.
- However, the paper, although understandable, is not written in good idiomatic English.
- In addition, the graphs are not well prepared.
- Dr Jones writes a very short review, pointing out the limitations of the paper, and recommends rejection.
- Is this an appropriate action?

Case #12, Issues to consider

- Was this review objective?
- Did the review adequately consider the quality and importance of the research?
- Was the focus of the review appropriate?
- Does this review meet the needs and objectives of a peer reviewed journal?