How Journals Work

and How to Make Them Work For You

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How peer review and journals work

- how journals work
- how editors make publication decisions
- common reasons manuscripts are not accepted

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journal processes

- Why faculty members publish
  - Disseminate knowledge
  - Promotion and tenure
  - Love of science/research/teaching

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mutual responsibilities

- Interlocking, mutual responsibilities of
  - authors
  - editors
  - reviewers
  - publishers

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- Role of author
  - thinker
  - investigator
  - reporter
  - colleague
  - competitor

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- Roles of reviewer
  - critic: identify strengths *and* weaknesses
  - truth-seeker and truth-teller
  - colleague: of editor, of author, of readers

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- Roles of editor
  - gatekeeper
  - cop
  - colleague

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- Some aspects of the peer-review process are not well known outside journals. For example,
  - —reviewers don't decide what is published
  - —in a few journals, "the editor" doesn't decide
  - —part of the editor's job is to project authors from reviewers
  - —The editor has no obligation—ethical or otherwise—to follow a reviewer's advice.

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- The editor is bound by
  - tradition of the journal and/or discipline
  - standards of the community of journals and editors
  - the community of researchers (in some sciences)

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different 'world views'

- Authors need to publish.
- Authors feel frustrated at every turn as they try to publish the results of work important to them.

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- The author's view of editors:

Editors are, in my opinion, a low form of life—inferior to the viruses and only slightly above academic deans.

--anonymous comment widely circulated among editors

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- Or

An editor should have a pimp for a brother, so he'd have someone to look up to.

--Gene Fowler

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- The problem is
  - authors' desires = infinite
  - journals' resources = finite

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- Journals' finite resources
  - "space"
  - reviewers
  - time
  - staff
  - budget
  - good science

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standards

- The gold standard for journals, editors, authors, and publishers

"Uniform Requirements for Manuscripts Submitted to Biomedical Journals"

by the

International Committee of Medical Journal Editors
(originally the 'Vancouver Group'—1978)

www.icmje.org

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– ICMJE = editors of approximately 11 leading general medical journals plus the National Library of Medicine.

– originally created consensus standards for technical aspects of author's papers: general format, reference citation style, graphics.

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– Developed next into ethical standards for editors

– Later developed standards for publishers and authors—everyone involved

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– The ICMJE involves medical journals (which are the overwhelming majority of biomedical/life science journals), but journals in other science fields follow the standards, although less often than in biomedicine).

– The ICMJE has changed the landscape of policy setting at bioscience journals.

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- Council of Science Editors
  - The oldest and largest organization of science editors; has been involved for decades with issues of journal policies.
  - The original Vancouver Group/ICMJE was created as an informal group at the 1978 annual meeting of the CSE, and leading journal editors and publishers are leaders in the CSE.

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- CSE White Paper on Promoting Integrity in Scientific Journals Publications (2006)
  - by the Editorial Policy Committee of the CSE
  - the first full overview of standards on all aspects of science journal publishing.
  - will likely become the basic reference for editors in setting journal policies

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– The CSE White Paper covers such issues as
  - authorship
  - editor-publisher relationship
  - confidentiality
  - peer review
  - conflict of interest
  - misconduct in research or publishing
  - mutual responsibilities of all authors, editors, reviewers, publishers
    – plus many others

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– journals can voluntarily “join” / “accept” the standards
  - Approximately 500 journals have “joined”—but this is not an accurate number because many follow some standards but not others, and some don’t follow any.
  - A few top-quality journals follow all the standards; most follow some even if they don’t know the origin (often because they have inherited policies that embody the standards).

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- 'Review Criteria for Research Manuscripts'
  - a detailed guide for reviewers (therefore useful to authors)
  - report of the *Academic Medicine*—GME/RIME Task Force, 2001.

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  - Written to include research in as many fields/ disciplines as possible
    - Information on peer review, submitting articles, responsibilities of reviewers, etc, applies to all research fields
    - Information on research content
      - more fully applicable to clinical and social sciences than to the "hardest" of bench sciences.
      - not applicable to fields such as physics

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why research papers rejected?

- Generally *suitable* papers
  - limited space (electronic publishing does not solve this problem)
  - not suited to defined readership of journal
  - does not contribute significant new knowledge
  - conclusions not justified by evidence or reasoning given

and

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  - Writing is poor, poorly organized
    - vague and imprecise
    - unclear, obscure, verbose, jargon-ridden

but most important

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– the research method is seriously flawed

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- *Unsuitable* papers
  - not within the journal's defined focus
  - violates the journal's restrictions on subject matter or methodology
  - ignores journal's requirements for
    - length
    - "style" (format, etc.)

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- factors *beyond author's control*:
  - journal recently accepted or published excellent papers on same or related topic
  - competition greater than usual when paper arrives

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  - paper arrives when the most appropriate category for it has already been filled
    - That is, a journal may allot a particular number of pages to different categories of articles (e.g., original research; brief reports) or sub-fields within the journal's focus

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– “personality” of journal or editor:

Some journals (by tradition or mandate)
and some editors (by personality or circumstances)
are more cautious
or thorough
or flexible
or adventurous than others.

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– Journals are “human systems”:

- Every editor makes some bad decisions; the bad ones usually can’t be identified for years
- Some journals undergo special pressures (e.g., financial, internal strife); editors react differently.

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- **Acknowledgements** for lists of reasons studies are not accepted:

  Categorizing reasons in terms of “generally suitable” and “generally unsuitable” is based on Richard G. Barlow, Form in the preparation of scholarly manuscripts, *Scholarly Publishing*, 1991; 23:242-7.

  Reasons outside author’s control were developed by Addeane Caelleigh.

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To look at these issues another way:

- What do reviewers and editors find to be the most common problems in the manuscripts they see?

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- Kassier & Campion:

  Most common flaw that results in outright rejection of a research manuscript:
  - design of study *
  - interpretation of findings
  - importance of the topic
  - presentation of results

Kassier JP, Campion EW. Peer review: crude and understudied, but indispensable. JAMA 1994;272:96-7.

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Abby M, et al.:

- poor methods
- inadequate results
- poor presentation
- inappropriate statistical analysis
- lack of originality
- weak discussion
- weak conclusions
- not use format/follow policy

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Abby M, et al., Peer review is an effective screening process to evaluate medical manuscripts. JAMA 1994;272:105-7.

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Byrne, D:

- Which section of a paper usually contains the most flaws?

  --twice as many editors and reviewers said the Methods section than either the Results or Discussion section.

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- Which section is most often responsible for outright rejection of a paper?

  – more than twice as many said Methods as said Results
  – 3 times as many said Methods as said Discussion.

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- Of eight listed problems, which is most often responsible for outright rejection of a paper?

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-- the top three, by wide margins:

1. inadequate or inappropriate presentation of data (approx. 20% more often than #2 & #3)

tied:

2. failure to give detailed explanation of the design
3. rationale confused, contradictory

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- Reasons seldom cited
  - Poorly written; excessive jargon
  - Essential data omitted or ignored
  - Boring

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- Virtually not cited:
  - excessive zeal and self-promotion
  - important work by others ignored

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Acknowledgement:

Byrne, Daniel

- Common reasons for rejecting manuscripts at medical journals: a survey of editors and peer reviewers, *Science Editor*, 2000:23(2):39-44.

Note: Although the author was director of biostatistics, General Clinical Research Center, Vanderbilt University Medical Center, the study is not a strong one and the results should be considered general reflections of editors' and reviewers' opinions.

- *Publishing Your Medical Research Paper: What They Don't Teach in Medical School,* Philadelphia, PA: Lippincott Williams & Wilkins, 1998.

Note: There are several other, clearer books on publishing science research.

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specific steps to improve papers

- Eliminate or mitigate the most common reasons for rejection.
- Apply review criteria specific to the type of research or field of study.

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- Create a checklist of most common internal problems in papers (e.g., inconsistency, etc.) and use it.
- Have knowledgeable colleagues, experienced in publishing articles, critique the paper—be sure they will be candid and that you will be ready to listen.

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- If necessary (or convenient), hire an authors editor or specialized technical editor.

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dealing with editors and journals

- Remember the different ‘world views’ of authors and editors.
- Understand the types of decision letters and revisions.
- Understand the types of editing and editing cycles.

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- Differing ‘world views’:
  - finite resources + author’s infinite needs
  - ‘value added’
  - quality control
  - access and ownership issues

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– who's wearing which hat today?

Remember that authors, reviewers, and editors are all the same people, with different roles at different times.

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Editors and Editorial Office

- Types of decision letters
  - Full reject (author usually cannot re-submit the paper unless letter says so)
  - Reject, but with the option for major revision and re-submission (no commitment except to allow its return)

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– Accept contingent upon revision—major or minor (still no commitment to publish)

– Accept, or accept with minor changes (this is a commitment to publish)

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- Types of revisions
  - Major: substantive changes such as reorganizing the paper, recalculating data, writing for a different audience or from different viewpoint
  - Minor: simple reorganizing, rewriting parts for clarity, adding or correcting specific points as directed by reviewers and editor(s)

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- Types of editing
  - Editing for grammar, punctuation, etc.; and for ‘style’ (e.g., the ‘house style’)
  - Substantive editing: editing for internal organization, clarity of writing, accuracy of information, relationship of text and tables, clarity of tables and charts, etc.

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to sum up, with cliches

- We’re all in this together.
- The editor is your friend.
- The present system is not always great, but it’s better than any other we’ve found.

and, I hope,

- The acceptance letter is in the mail.

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