Ethical Guidelines: Publication and Authorship

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Ethical Guidelines

• General guidelines – NENT (www.etikkom.no)

• Guidelines for publication and review – The International Committee of Medical Journal Editors (ICMJE) – “Uniform Requirements for Manuscripts Submitted to Biomedical Journals” (the Vancouver Convention) www.icmje.org

• Data Protection Official for Research/Personvernombud for forsking/NSD www.nsd.uib.no/personvern/
ICMJE – ”Vancouver Recommendations”

• The International Committee of Medical Journal Editors (ICMJE)
• A small group of editors of general medical journals met informally in Vancouver, British Columbia, in 1978 to establish guidelines for the format of manuscripts submitted to their journals. The group became known as the Vancouver Group.
• Recommendations first published 1979, present version from 2013
• Adapted in other disciplines
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II. Ethical Considerations in the Conduct and Reporting of Research

- **Authorship and Contributorship**
  - Byline Authors
  - Contributors Listed in Acknowledgements

- **Editorship**
  - The Role of the Editor
  - Editorial Freedom

- **Peer Review**

- **Conflicts of Interest**
  - Potential Conflicts of Interest Related to Individual Authors' Commitments
  - Potential Conflicts of Interest Related to Project Support
  - Potential Conflicts of Interest Related to Commitments of Editors, Journal Staff, or Reviewers

- **Privacy and Confidentiality**
  - Patients and Study Participants
  - Authors and Reviewers

- **Protection** of Human Subjects and Animals in Research
Ethical Issues in Publication

- The most common source of arguments and misconduct allegations
- Responsibility of co-authors is a key issue in fraud cases

"If you have co-authors problems about authorship can range from the trivial to the catastrophic" - Maeve O’Connor, quoted in Day and Gastel "How to Write a Scientific Paper" CUP.
Ethical Issues in Publication (cont.)

- Number of co-authors – 20 common in biology – record over 5000
- Role of technicians and field-workers
- Role of supervisor and heads of departments

Slafer, 2005, Field Crops Research
«Fruit-fly paper» 1000+ authors

Social Selection

Fruit-fly paper has 1,000 authors

Author lists have grown lengthy in many fields of science, but when a Drosophila genomics paper was published with more than 1,000 authors, it sparked discussion online about the meaning of authorship. The paper, published in the journal G3: Genes Genomes Genetics, names 1,014 authors, with more than 900 undergraduate students among them. Zen Faulkes, an invertebrate neuroethologist at the University of Texas-Pan American in Edinburg, questions on his blog whether every person made enough of a contribution to be credited as an author (see go.nature.com/8rfl77). But the paper’s senior author, geneticist Sarah Elgin at Washington University in St. Louis, Missouri, says that large collaborations with correspondingly large author lists have become a fact of life in genomics research. “Putting together the efforts of many people allows you to do good projects,” she says.

Combined Measurement of the Higgs Boson Mass in $pp$ Collisions at $\sqrt{s} = 7$ and 8 TeV with the ATLAS and CMS Experiments

G. Aad et al.*

(Received 25 March 2015; revised 14 May 2015)
Number of authors per publication - Norway

Dataikilde: CRIStin

Forskningspolitikk 3/2013 www.fpol.no
Ethical Issues in Publication (cont.)

- Publication bias – only positive results get published
- Reviewing processes

Nature 14.09.09: *Sneak test shows positive-paper bias*
Reviewers keener to give thumbs up to papers with positive results


Lutz Bornmann, et al., *Journal of Informatics* 2007

Publication and Authorship – Deborah.Oughton@nmbu.no
... simply, useless (sexist) reviewers

Speaking of Science

Sexism in science: Peer editor tells female researchers their study needs a male author

Reviewer's conclusion: we should get a man's name on MS to improve it (male colleagues had already read it) (2/4)

It would probably also be beneficial to find one or two male biologists to work with (or at least obtain internal peer review from, but better yet as active co-authors), in order to serve as a possible check against interpretations that may sometimes be drifting too far away from empirical evidence into ideologically biased assumptions.
Predatory Journals

Nonsense paper written by iOS autocomplete accepted for conference

New Zealand professor asked to present his work at US event on nuclear physics despite it containing gibberish all through the copy

[Image of a CERN laboratory in Geneva, Christoph Bartneck reduced the complex world of nuclear physics to phrases such as 'power is not a great place for a good time'. Photograph: Fabrice Coffrini/AFP/Getty Images]

Journal accepts bogus paper requesting removal from mailing list

Australian computer scientist Dr Peter Vamplew submitted emphatically titled paper to 'predatory' journal and 'nearly fell off chair' when it was accepted

Get me off Your Fucking Mailing List

David Mazières and Eddie Kohler
New York University
University of California, Los Angeles
http://www.mailavenger.org/

[Image of a page from the Guardian, 25 November 2014]
Retraction of papers

(A) Number of retracted articles for specific causes by year of retraction. (B) Percentage of published articles retracted for fraud or suspected fraud by year of publication (Fang et al, 2012).

Fang et al., 2012, Misconduct accounts for the majority of retracted scientific publications. PNAS, 109: 17028–17033, doi: 10.1073/pnas.1212247109
Reproducibility of studies

• Large number of biomedical studies are not or cannot be reproduced (up to 50-90%)


Raise standards for preclinical cancer research

C. Glenn Begley and Lee M. Ellis propose how methods, publications and incentives must change if patients are to benefit.

RESEARCH ARTICLE

Estimating the reproducibility of psychological science
Generalising to 12 guidelines for academic referencing

1. Reproduce the correct reference
2. Refer to the correct publication
3. Do not use “empty” references
4. Use reliable sources
5. Use generalisable sources for generalised statements
6. Do not misrepresent the content of the reference
7. Make clear which statement references support
8. Do not copy someone else’s references
9. Do not cite out-of-date references
10. Do not be impressed by top journals
11. Do not try to reconcile conflicting evidence
12. Actively search for counter-evidence

You can find the full write-up in here:
Authorship Practice in your own field

- Is your supervisor always a co-author?
- How do you decide who is on the author list?
- How do you decide the order?
Criteria for credit - Vancouver

• Authorship credit should be based on:
• 1) Substantial contributions to: the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
• 2) Drafting the work or revising it critically for important intellectual content; AND
• 3) Final approval of the version to be published; AND
• 4) Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
Criteria – cont.

- Acquisition of funding, collection of data, or general supervision of the research group, alone, does not justify authorship.

- All persons designated as authors should qualify for authorship, and all those who qualify should be listed.

- The authorship criteria are not intended for use as a means to disqualify colleagues from authorship who otherwise meet authorship criteria by denying them the opportunity to meet criterion 2 or 3. Therefore all individuals who meet the first criterion should have the opportunity to participate in the review, drafting, and final approval of the manuscript.
An “author” is generally considered to be someone who has made substantive intellectual contributions to a published study, and biomedical authorship continues to have important academic, social, and financial implications.

(1) In the past, readers were rarely provided with information about contributions to studies from those listed as authors and in acknowledgments.

(2) Some journals now request and publish information about the contributions of each person named as having participated in a submitted study, at least for original research. Editors are strongly encouraged to develop and implement a contributorship policy, as well as a policy on identifying who is responsible for the integrity of the work as a whole.
Discussion Case: The Sticky Supervisor …

- Jan White took his Masters degree at the Department of Geography with Professor Brown and Doctor Green as supervisors.
- He is now engaged on a PhD project on glacial studies with Green as his main supervisor. Brown is not a supervisor.
- Green and White write a paper that builds on some of the work carried out by White in his masters study. It includes both old and new data and develops theories first introduced in the Masters thesis. Brown is thanked in the acknowledgements.
- They submit to The Journal of Advanced Geography, who by mistake send it to Brown for review.
- Brown reviews the paper, making extensive comments and revisions, and returns to the editor recommending publication, but only if he is included on the author list. He claims that the work includes data produced while he was White’s supervisor, and that he was originally responsible for the idea.
- Green and White object. White claims that Brown’s supervision was minimal during this particular part of the work, and that MSc data make up only 10% of the total. They have referred to both the masters thesis and Brown’s own publications in the article.
- Brown refuses and takes the case to the Department Head, who then forwards to the University misconduct committee.
- Assume you are on the committee. What is your initial reaction to the case? What information would you require for an evaluation?
Research Ethics Committees and Boards

• National Research Ethics Committees (www.etikkom.no)
  – Science and Technology (NENT)
  – Humanities and Social Research (NESH)
  – Medicine (NEM)
• Nasjonal Granskingsutvalget (GRU) - The National Committe for investigations into misconduct in research
• Biotechnology Advisory Board (www.bion.no)
• Technology Advisory Board (www.teknologirådet.no)
• UiO Forskningsetikk [http://www.uio.no/forskning/om-forskningen/etikk/]
  – [UiOs 10 bud for god forskningsskikk](http://www.uio.no/forskning/om-forskningen/etikk/)
  – Håndbok for god forskningsskikk
  – Forskningsetisk utvalg
Research Ethics Guidelines

- Norwegian Research Ethics Committees (www.etikkom.no)
  - General guidelines for research ethics
  - Medical and health research
  - Science and technology
  - The social sciences, law and the humanities
  - Ethical Guidelines for Internet Research
  - Research Ethics Checklist

- All available in Norwegian and English
General guidelines for research ethics

Research is of great importance – to individuals, to society and to global development. Research also exercises considerable power at all these levels. For both these reasons, it is essential that research is undertaken in ways that are ethically sound.

PRINCIPLES

- **Respect.** People who participate in research, as informants or otherwise, shall be treated with respect.
- **Good consequences.** Researchers shall seek to ensure that their activities produce good consequences and that any adverse consequences are within the limits of acceptability.
- **Fairness.** All research projects shall be designed and implemented fairly.
- **Integrity.** Researchers shall comply with recognized norms and to behave responsibly, openly and honestly towards their colleagues and the public.

1. **Quest for truth.** Research activity is a quest for new knowledge, with critical and researcher must prevent any use and communication of information that might
2. **Availability of results.** As a main rule, research results should be made available.
General Guidelines

1. Quest for truth
2. Academic freedom
3. Quality
4. Voluntary informed consent
5. Confidentiality
6. Impartiality
7. Integrity
8. Good reference practice
9. Collegiality
10. Institutional responsibility
11. Availability of results
12. Social responsibility
13. Global responsibility
14. Laws and regulations
**Sammendrag**

**Retningslinjer**
- Forskningsetikk
- Forskningens forpliktelser overfor samfunnet
- Redelighet, sannferdighet og etterrettelighet
- Usikkerhet, risiko og føre var-prinsippet
- Beskyttelse av forskningsdeltakere
- Beskyttelse av dyr i forskning
- Forholdet mellom forskning og andre kunnskapsbærere og kunnskapsformer
- Oppdragsforskning, åpenhet og interessekonflikter
- Varsling og etisk ansvar
- Forskningsformidling

**Forslag til vitenskapen**
Research Ethics Guidelines

• General guidelines – NENT and NESH (www.etikkom.no)
  - Research Ethics Guidelines for Natural Science and Technology (NENT)
  - Research Ethics Guidelines for Social Sciences, Humanities, Law and Theology
“The overriding obligations of research to society” - 2016

1. Forskningen har et selvstendig ansvar for egen rolle i samfunnsutviklingen.

Forskere og forskningsinstitusjoner skal bidra til en felles kollektiv kunnskapsbygging og til å løse store utfordringer som verdenssamfunnet står overfor. Forskningen må ikke være innrettet slik at den kommer i konflikt med demokratisk utvikling eller internasjonale konvensjoner som skal trygge fred. Forskningen må ikke bryte med de rettighetene som er nedfelt i anerkjente internasjonale konvensjoner om sivile, politiske, økonomiske, sosiale og kulturelle menneskerettigheter. Der vitenskapelig og teknologisk utvikling kan misbrukes til å svekke individenes selvbestemmelse, menneskeverd og demokratiske rettigheter, skal forskeren bestrebe seg på å hindre og ikke bli delaktig i slik misbruk av forskningen. Forskeren har et selvstendig ansvar for at forskningen direkte eller indirekte vil kunne komme samfunnet til gode og for å minimere risiko.

2. Forskningen skal være i overensstemmelse med bærekraftig utvikling.

Forskerne og forskningsinstitusjonene har et kollektivt ansvar for å bidra til en bærekraftig utvikling og til å bevare biologisk mangfold. «Bærekraft» omfatter økonomiske, sosiale, institusjonelle og miljømessige aspekter.

3. Forskningen har et ansvar for å bidra til større global rettferdighet.

Forskningsresultatene og anvendelsen av dem skal deles med samfunnet i sin helhet, både nasjonalt og internasjonalt, og spesielt med utviklingsland. Forskningen må ikke være innrettet slik at den bidrar til å forsterke global urrettferdighet. Fordeler, ulemper og risiko knyttet til forskningsvirksomhet og teknologiutvikling bør fordeles rettferdig. Kunnskap om forskning skal som hovedregel gjøres tilgjengelig for
Personal and Institutional Responsibility

Stig S. Frøland, prof. Rikshospilatlet

..does Utgard mean that natural scientists should try to predict how their results could be used or misused? ... Utgard demands that scientists should undertake an ongoing ideological and political assessment in their research. This is incompatible with research... there is only one ethical demand for research: that it has acceptable quality and that the results are presented as objectively as possible”

Letter in Aftenposten 29th April 2010
• What responsibility do scientists have for the possible negative consequences of their research?
• How should we best evaluate and balance the potential harms and benefits of research and technology?
• How to deal with risk and uncertainty?
The Modern University – Tuesday 30th

• Ziman Paper – Is Science Losing its Objectivity? (Available on MNSES Website)