

## On publication ethics



Presented by Juliana Trajano

Rio de Janeiro, 23rd August 2017

# Why do authors' ethical behavior matter?

MENU ▾ nature.com

## China cracks down on fake data in drug trials

*Researchers and manufacturers face possible jail time – or execution – for fraudulent submissions to nation's drug agency.*

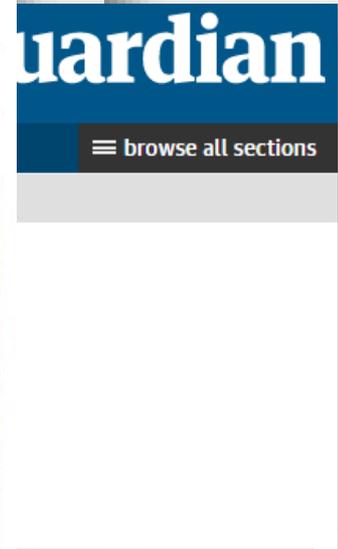
BY David Cyranoski • 16 May 2017




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**Science**  
Head quarters

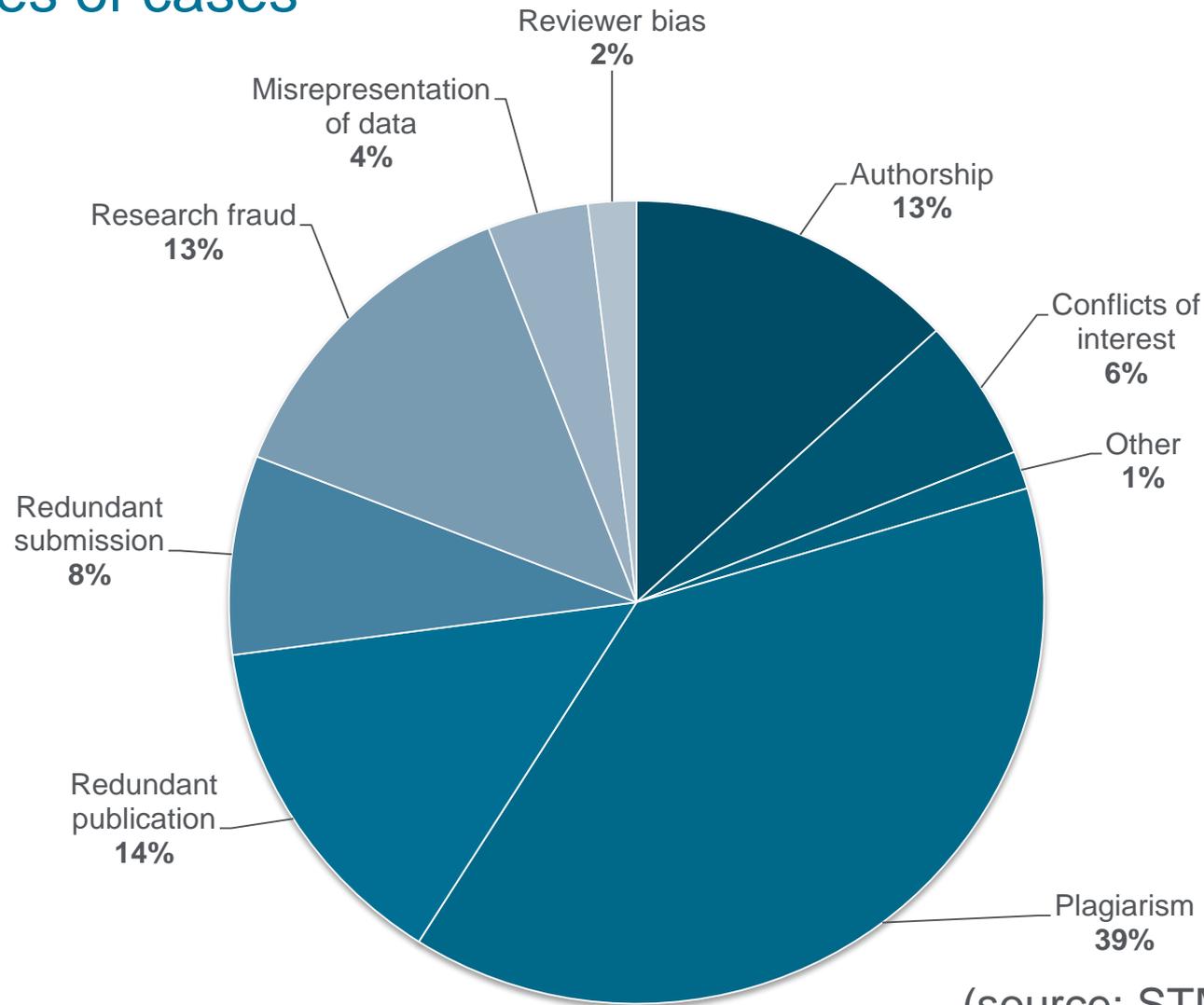
UK world sport



**Guardian**

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## Types of cases



(source: STM Publishers, 2013)

## Author responsibilities

**Key author responsibilities include:**

- Report only real, unfabricated data
- Originality
- Declare any conflict of interest
- Authorship



## Ethical issues in publishing

### Scientific misconduct

- Falsification of results

### Publication misconduct

- Plagiarism
- Conflict of interest
- Appropriate identification of all co-authors
- Duplicate publication
- Duplicate submission



M. Errami & H. Garner  
A tale of two citations  
Nature 451 (2008): 397-399

## What is plagiarism?

Plagiarism is the **appropriation** of another person's ideas, processes, results, or words **without giving appropriate credit**.

**USA Office of Science and  
Technology Policy, 2007**



Presenting the data or interpretations of others without crediting them, and thereby gaining for yourself the rewards earned by others, is **theft**, and it eliminates the motivation of working scientists to generate new data and interpretations.

**Prof. Bruce Railsback, Department of Geology, University of Georgia**

## Correct citation is key

**Crediting the work of others (including your advisor's or your own previous work) by citations is important for at least three reasons:**

1. To place your work in context.
2. To acknowledge the findings of others on which you have built your research
3. To maintain the credibility and accuracy of the scientific literature.



# Paraphrasing

## Unacceptable:

- Using phrases from the original source without enclosing them in quotation marks;
- Emulating sentence structure even when using different wording;
- Emulating paragraph organization even when using different wording or sentence structure.

Statement on Plagiarism

Department of Biology, Davidson College, North Carolina, USA

<http://www.bio.davidson.edu/dept/plagiarism.html>

Paraphrase is  
to state something written  
or spoken in different words.

***Cambridge Dictionary***

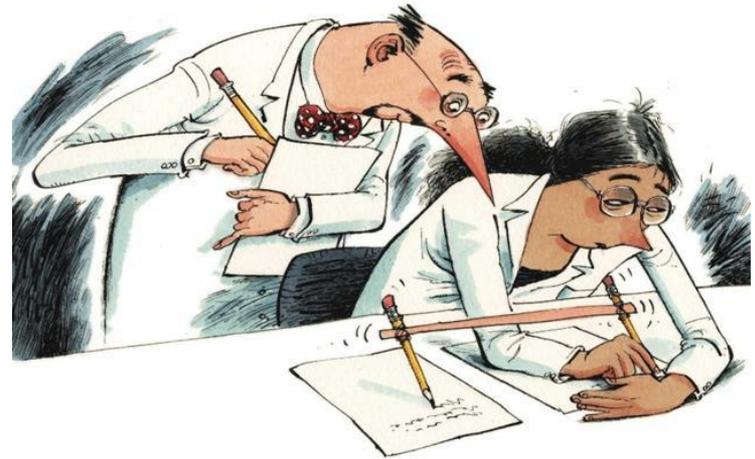
# Ethical issues in publishing

## Scientific misconduct

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## Publication misconduct

- Plagiarism
  - Different forms / severities
  - The paper must be original to the authors
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## Conflict of interest: definition

### COUNTERTHINK



A situation in which someone cannot make a fair decision because they will be affected by the result.

- *Cambridge Dictionary*

A situation that has the potential to undermine the impartiality of a person because of the possibility of a clash between the person's self-interest and professional interest or public interest.

- *Business Dictionary*

## Conflicts of interest question

Indicate if any of the following are examples of conflicts of interest:

1. A university researcher, who owns stock in a large oil company, conducts an experiment on the environmental effects of oil drilling.
2. A university researcher, who is developing and testing a new technology, is also a consultant for a financial services firm that weighs investments in new technologies.
3. A researcher submits an article to a journal for which the editor-in-chief is a professor in the researcher's department.
4. A doctor who abides by traditional healing procedures writes a paper on emerging current medical technologies.

**Direct financial** - employment, stock ownership, grants, patents

**Indirect financial** - honoraria, consultancies, mutual fund ownership, expert testimony

**Career and intellectual** - promotion, direct rival

**Personal belief**

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## What does it mean to be an author?

- An “author” is generally considered to be someone who has made substantial intellectual contributions to a published study
- Decisions about who will be an author and the order of authors should be made before starting to write up the project
- Policies can vary widely between fields and journals. If in doubt, check with the journal editor in advance.



## Q. What does it mean to be an author?

**A researcher** completes her paper.

Along the way she consulted **her advisor** for guidance on the experiment, the data analysis and writing and revising the final article.

**A professor in India** assisted her in analysing the data only.

**A lab assistant** helped her preparing the experimental design and maintaining and operating the equipment.

**Two fellow grad students** read her paper and edited it, though they had no hand in the experiment.

- **Who should be listed as an author?**
- **Who should be listed first?**

## Answer

The correct answer depends on journal policy.  
Authorship policies vary across disciplines, cultures and journals.

Example: the International Committee of Medical Journal Editors declared that an author must:

- *Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND*
- *Drafting the work or revising it critically for important intellectual content; AND*
- *Final approval of the version to be published; AND*
- *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.*



Applying this set of rules to our example, only the researcher and her advisor would qualify as authors.

# Authorship: dos and don'ts

## General principles for who is listed first

- **First author:**

Conducts and/or supervises the data analysis and the proper presentation and interpretation of the results

Puts paper together and submits paper to journal

- **Co-author(s):**

Makes intellectual contributions to the data analysis and contributes to data interpretation

Reviews each draft

Must be able to present the results, defend the implications and discuss study limitations

- **Corresponding author:**

Can be the first author, or sometimes is a senior author from the institution

## Abuses to be avoided:

- ✗ **Ghost authorship:** leaving out author who should be included

- ✗ **Gift authorship:** including authors who did not contribute significantly

## Contributor statement example

*Increased fasting serum glucose concentration is associated with adverse knee structural changes in adults with no knee symptoms and diabetes*

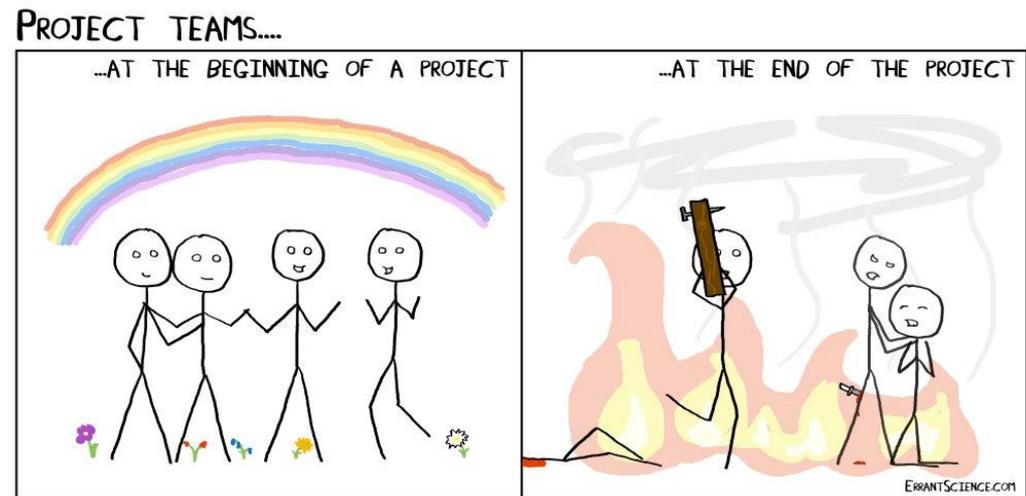
Miranda L. Davies-Tuck, Yuanyuan Wang, Anita E. Wluka, Patricia A. Berry, Graham G. Giles, Dallas R. English, Flavia M. Cicuttini

Maturitas – August 2012 (Vol.72, Issue 4, Pages 373-378. DOI: 10.1016/j.maturitas.2012.05.013)

- Drs. Cicuttini, Wluka, Giles and English were involved in study design and inception
- Drs. Davies-Tuck, Wang, Wluka, Berry, and Cicuttini were involved in subject recruitment, data collection, statistical analyses and interpretations.
- All authors were involved in manuscript preparation and revision.

## Author disputes

- Must be resolved by authors
- Editors cannot adjudicate or act as judge
- Delay publication: editor has to get agreement from all authors about any changes
- After publication, any change can be published as a correction, but needs agreement from all authors with justification



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## Submission question

Are either of the following scenarios acceptable to most communities and journals?

- A researcher is ready to submit her paper and decides to submit to Science, Nature and Cell all at the same time.
- A researcher has had his paper rejected by Science and decides to submit it to Nature. Failing that, he plans to submit to each journal in his discipline until it is accepted.

*The **first scenario** is NOT acceptable to most research communities and journals*

*The **second scenario** is acceptable but authors should heed the advice of referees and editors concerning improvements.*

## Submissions answer

### Multiple, redundant, or concurrent publication issues

- Should be avoided where manuscripts that describe essentially the same research are published in more than one journal or primary publication.
- Duplication of the same paper in multiple journals of different languages should be avoided.
- “Salami slicing”, or creating several publications from the same research, is manipulative and discouraged.



## The most serious issues to avoid

**These are the 3 most common form of ethical misconduct that the research community is challenged with**

- Fabrication  
Making up research data
  
- Falsification  
Manipulation of existing research data
  
- Plagiarism  
Previous work taken and passed off as one's own

## Authorship recap

- Should always be established at beginning
- Comes with credit but also with responsibility
- Definitions vary per community/journal
- Avoid disputes, gift and ghost authorship

## Responsibilities recap

- Real, unfabricated data
- Original work and language
- Authorship
- Declare any conflict of interest





**Thank you!**

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