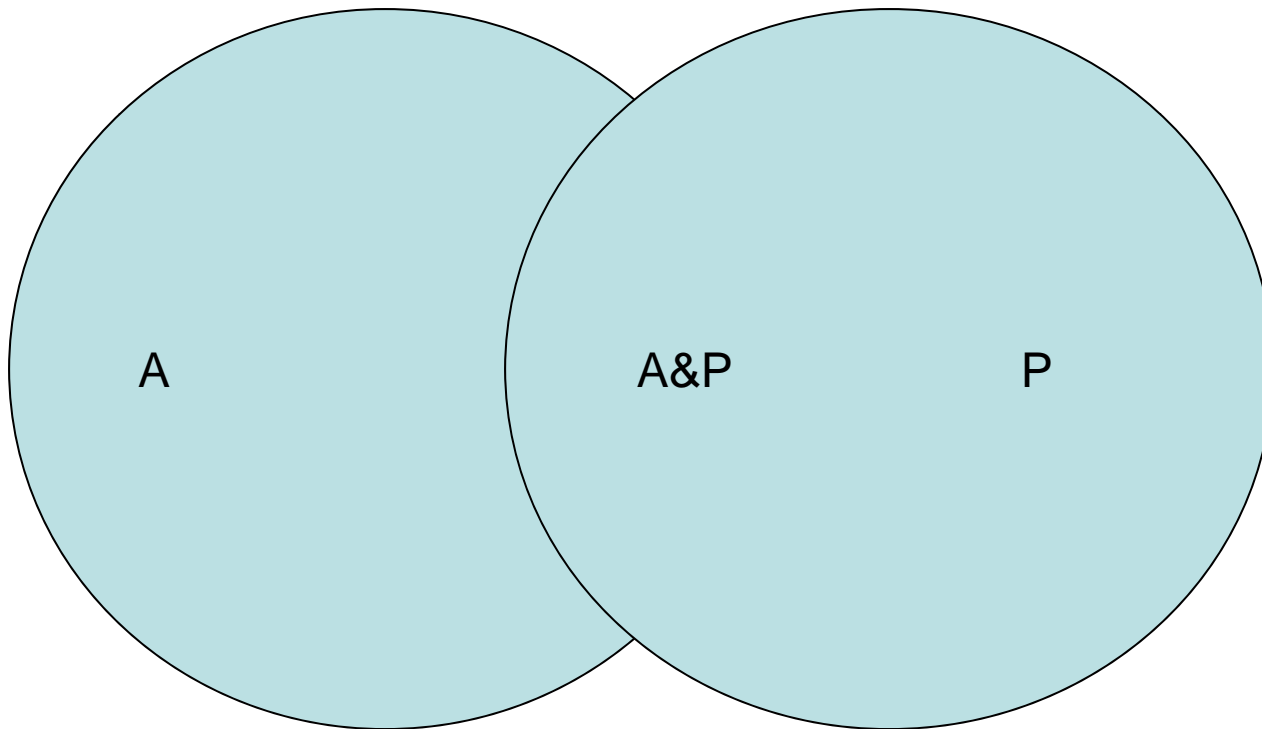


Authorship and Plagiarism

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Relationship of Authorship Issues and Plagiarism Issues



A Pure Authorship Issue

(Who deserves an authorship credit?)

We were submitting an article to a high impact journal when numerous clinicians and postdocs began appearing out of the woodwork claiming they deserved an authorship credit. One said he had provided a common dye reagent. Another, whom we hardly ever saw in our lab, claimed it was his idea to do certain experiments that were described in the manuscript—a claim no one could remember. A third claimed he had provided us with access to some research participants. Ultimately, there were a lot of backroom negotiations and two additional authors were added to the manuscript. In my opinion, however, they had contributed nothing to the manuscript.

A Pure Plagiarism Issue (Intellectual theft)

Graduate students A and B are working on somewhat different but sometimes overlapping aspects of the same project at the same university. Their labs are side-by-side, and they share ideas often and compare data occasionally.

In one of their discussions and without realizing it, Student B “suggests” a novel experimental idea to Student A. A is immediately struck by the idea’s value, but he does not relate his insight back to B. Instead and in secret, Student A implements the idea and begins a series of experiments and data collection. While this is happening and some weeks later, Student B realizes the same idea. She quickly discusses it with Student A, who, unbeknownst to B, is already well along in using it.

Plagiarism

Student B is finishing up a group of experiments and cannot start anything new. That allows Student A to finish his data collection and write up the results. Student A presents a finished report to his PI without any acknowledgement of Student B. Upon reading the report, Student B is enraged and claims that Student A committed plagiarism (i.e., he committed “intellectual theft”) by using a critical idea of hers without acknowledgment.

Authorship ↔ Plagiarism

(Intellectual theft that appears in a publication)

“When Eric Le Bourg, a French biogerontologist, came across a paper in a Korean journal recently, he almost fell off his chair; the entire article—text and graphs included—had been taken from one of his earlier articles. ‘It was plagiarism from beginning to end,’ he said. ‘I was astonished; it was pure cut and paste.’...Le Bourg’s paper, ‘A review of the effects of microgravity and hypergravity on aging and longevity,’ was published in the Elsevier journal, *Experimental Gerontology* (E. Le Bourg, Exp.

Gerontol. 34, 319-336, 1999). The duplicate, by Hak-Ryul Kim, who listed his affiliation as the biology department of Korea University in Seoul, was published a year later in the *Korean Journal of Biological Sciences* ...Le Bourg and the editors of *Experimental Gerontology* have tried to investigate further, but to no avail.”

– Nature, Vol. 455, 9 October 2008, p. 715

What's the Central Problem with Authorship?



- Awarding authorship on the basis of:
 - Acquisition of funding
 - Provision of technical service or access to research materials
 - Data collection
 - Research supervision
 - Access to patients
 - Fame (Nobel prize)
 - Director of lab
 - Writing assistance

What's the central issue of plagiarism?



- What are the defining characteristics of intellectual theft?
- When has an idea been “illicitly taken” from A by B, and then illegitimately claimed by B as B’s own?

AUTHORSHIP ISSUES

How should authorship credit be determined?

- “Authorship credit should be based on 1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published. Authors should meet conditions 1, 2, and 3 ... Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.” ICMJE, Uniform Requirements, p. 6

At the core of authorship..



- “An ‘author’ is generally considered to be someone who has made substantive intellectual contributions to a published study.” ICMJE
- “All authors should participate in writing the manuscript by reviewing drafts and approving the final version.” Harvard authorship guidelines

Why not be generous and just say so-and-so is an author?



Misrepresentation: “One author should take primary responsibility for the work as a whole even if he or she does not have an in-depth understanding of every part of the work. This primary author should assure that all authors meet basic standards for authorship and should prepare a concise, written description of their contributions to the work, which has been approved by all authors. This record should remain with the sponsoring department.”

Harvard authorship guidelines

For Example

Dr. White is coming up for tenure and wants to sustain the good will of his mentor, Dr. Green. Dr. Green offered a modest, technical suggestion to Dr. White regarding an experiment. Dr. White wishes to thank Dr. Green (and secure Dr. Green's continuing good will) by adding Green's name to one of White's papers as an author. If Dr. White, however, would state precisely Dr. Green's "contribution"—whether in the paper or in some department record—Green would clearly not deserve an authorship credit. Consequently, Dr. White is trying to come up with something "creative" to justify Green's contribution as meriting authorship.

Troubling example

Dr. Gerald Schatten was senior author (and “guarantor”) of the 2005 Science paper (308:1777-83) claiming 11 cloned stem cell lines. He did not oversee the lab work and took for granted that the Korean data was correct.

On another paper (Nature, 2005;436:641)

Dr. Schatten was listed as a co-author but later claimed that his only contribution was suggesting that a professional photographer be hired to photograph the cloned dog Snuppy. The U of Pitt integrity committee found him not guilty of scientific misconduct but accused him of scientific “misbehavior.”

But here's a tough one...

- Jim's a postdoc who has worked with Natalie on a bunch of experiments. They have written and submitted a paper to a high impact journal. As the paper is under review, Jim surprises everyone by saying that he is leaving the lab, going back to his home town, and is marrying his high school sweetheart. He is uncertain whether he will remain in science. Some weeks later and after Jim has left the lab, the review of the paper comes back.

The paper appears to be provisionally accepted, provided that revisions occur. The revisions are extremely elaborate and call for additional data collection, re-analysis and re-interpretation. When Natalie contacts Jim, he tells her that there is no way he can do any of these tasks and asks her to “follow through.” She puts in an enormous amount of time doing new data collection and completes all the revisions. When she approaches her PI, she says, “Given my work on this, I’d say I should be first author.”

The problem is that Jim was responsible for most of the original design and conception of the experiments, ran most of the initial ones and composed most of the first draft of the paper. But Natalie followed with a tremendous amount of revision and added new data (along with its analysis). While a set of guidelines for authors can be helpful, can they resolve the problem of first authorship in this case?

So, what to do...

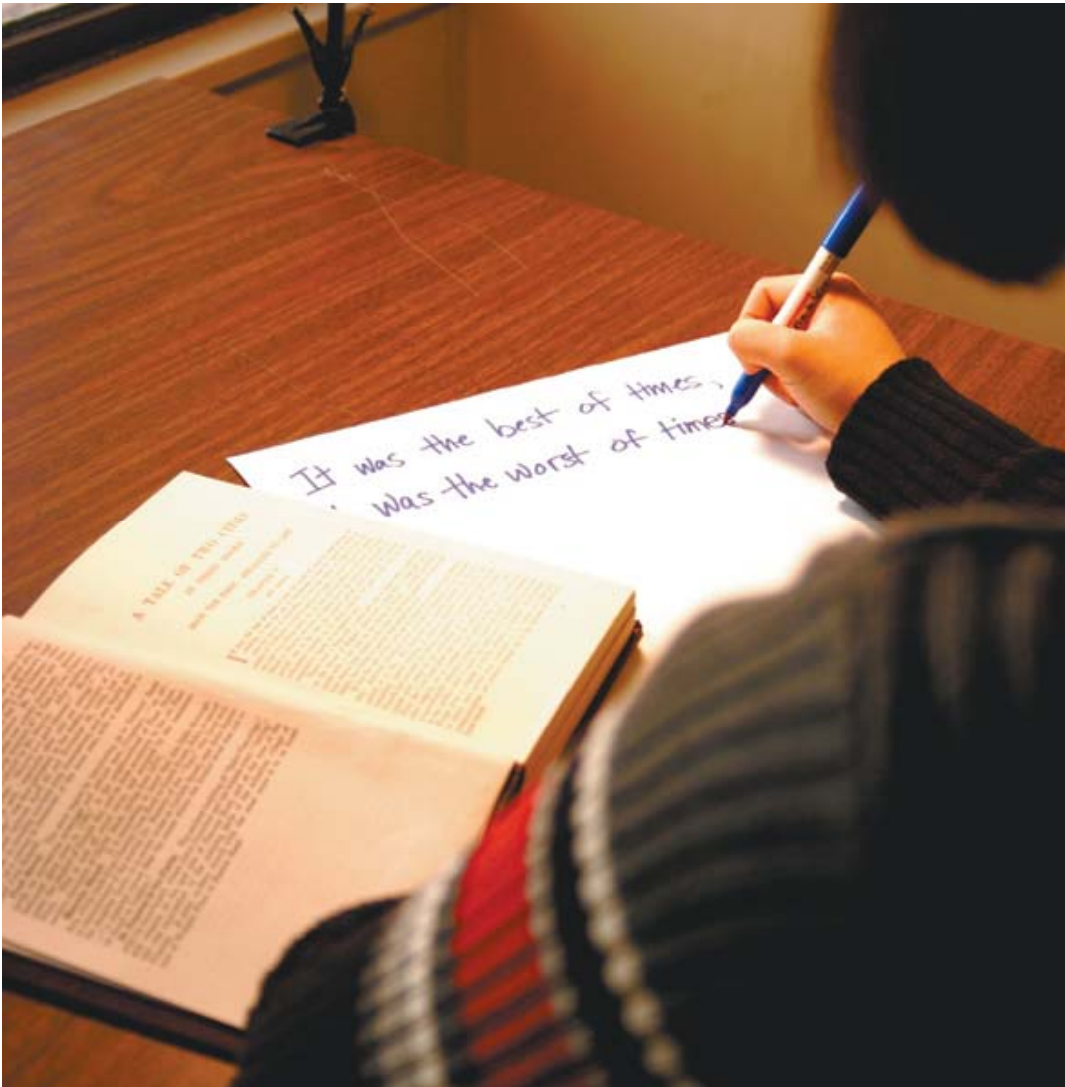
- Authorship identification and order should be determined early and simultaneous with assigning writing responsibilities;
- Disputes over authorship are best settled “locally”; if that fails, an ombudsman’s office, ethics committee, or compliance officer might assist; just as hospitals have an ethics committee, it might be wise for research universities to have a similar mechanism for helping to adjudicate various kinds of disputes;
- The institution’s authorship policies should be disseminated throughout the University
- Just and fair rules of authorship must be modeled and insisted upon by leadership

Plagiarism

Characterizations of Plagiarism

- “As a general definition, ORI considers plagiarism to include both the theft or misappropriation of intellectual property and the substantial unattributed textual copying of another’s work. It does not include authorship or credit disputes. The theft or misappropriation of intellectual property includes the unauthorized use of ideas or unique methods obtained by a privileged communication, such as a grant or manuscript review.” (ORI; <http://ori.dhhs.gov/policies/plagiarism.shtml>)
- “A writer’s facts, ideas, and phraseology should be regarded as his or her property. Any person who uses a writer’s ideas or phraseology without giving due credit is guilty of plagiarism.” (Honor Code of Emory College, Appendix)

So, the “theft” is either...



- Ideational: X uses another's idea but does not cite the idea's creator or where the idea originally appeared. (Misappropriation)
- Phraseological: X copies the wording of Y's text but does not credit Y as the creator of that wording. (Nonattribution)

Note that...

- Problems might occur if...
 - The text that was plagiarized was itself derivative (i.e., was copied from another source or considered common knowledge)
 - The text that was plagiarized contained no novel ideas (thus, no ideas were essentially “stolen”)
 - An idea was stolen but, in its original form, was never written down but rather communicated orally
- Generally, even if an idea is not novel, an individual’s copying the idea’s wording or phraseology is considered plagiarism, as that wording or phraseology belongs to the original author.

Two examples of plagiarism from ORI over the years

- A professor of chemistry at Ohio State is accused by a former colleague of plagiarizing research design ideas from the latter's NIH grant application into the former's NIH grant application
- An instructor in medicine at the Dana Farber Cancer Institute took his mentor's NIH grant application and copied essentially the whole application for use as his own NIH application.
- (Sometimes the reviewer of the grant is the one from whom the plagiarist plagiarized!)

Some Emory College Honor Code Recommendations

- Footnotes are unnecessary if:
 - The material may be found in several books on the subject
 - The entire wording of the material is the student's
 - The material is not paraphrased from any particular source
 - The material belongs to common knowledge
- “Generally, if a student writes while looking at a source or while looking at notes taken from a source, a footnote should be given.”
- “Whenever any idea is taken from a specific work, even when the student writes the idea entirely in his own words, there must be a footnote giving credit to the author responsible for the idea.”

A Case

Jane is trying hard to purify a protein without success. She goes to her PI and explains the problem. He says, "Don't fret. I'll have something for you to look at tomorrow." The next day, he gives her some pages from an apparently unpublished manuscript and says, "Read the methods and results sections of this paper. They'll help you. But don't tell anybody I gave you this paper. Do not make any copies of it. And as soon as you're finished, return it to me." Sure enough, Jane uses the methodology, and it works. She returns the paper to her PI saying, "Dr. Smith, I have searched the literature high and low to find a method to help me with my project and found absolutely nothing. Where did you get that manuscript?" Smith replies, "Oh, I've got a ton of them."

Note...

- The paper might be:
 - Written by a former student of Dr. Smith's who was working in Dr. Smith's lab at the time. The paper was never published nor was it ever submitted for publication
 - One that Dr. Smith was recently asked to review for a peer-reviewed publication or NIH application
 - One that has been accepted for publication and will appear soon

How would your analysis fare if the
paper was

Written by a former student of
Dr. Smith's who was working in
Dr. Smith's lab at the time. The
paper was never published nor
was it ever submitted for
publication.

Analysis

- The University owns the student's work as its intellectual property
- If the student never sought copyright from the University, Dr. Smith would seemingly have authority to allow others to read it and use its ideas
- If the student, now at another University, wished to publish that work, he would have to receive permission to do so from the University (because the University might wish to exercise an intellectual property right in it, i.e., patent some of its contents)
- Jane should acknowledge her predecessor's work in any of her publications;
- If she cuts and pastes, professional civility dictates that she invite the student to be a co-author
- Dr. Smith is obligated to inform Jane of the nature of this paper, so that he doesn't make an ethically ambiguous or problematic impression on Jane (especially as she begins learning about plagiarism)

How would your analysis fare if the
paper was ...

One that Dr. Smith was recently
asked to review for a peer-
reviewed publication or an NIH
application. He has not turned in
his review yet.

Analysis

- Dr. Smith witnesses a conflict of loyalty (to the source of the paper and to Jane)
- Journal and NIH reviewers pledge confidentiality for the obvious reason
- Remember: “The theft or misappropriation of intellectual property includes the unauthorized use of ideas or unique methods obtained by a privileged communication, such as a grant or manuscript review.” (ORI)
- Suppose Smith and Jane submit a paper that doesn't acknowledge this manuscript! (Smith will have committed 2 ethical breaches: confidentiality breach and plagiarism)
- Possibility of severe sanction for Smith and Jane

How would your analysis fare if the
paper was

The paper has
been accepted for
publication and will
appear soon.

Analysis

- Dr. Smith needs to contact the journal editors first and ask for permission for him to contact the author because
 - The journal owns the copyright and might wish to control the dissemination of the paper
 - The journal might wish to keep Dr. Smith's identity as a reviewer unknown to the author
- If the journal has no problem, an editor will contact the author with Smith's request to share the paper with Jane. The author might refuse outright or set limits on what can be done with the paper (read only, read + discuss, read + discuss + try the experimental methods)

Penalties for Plagiarism

- NIH/ORI: the plagiarist must certify through an institutional official that his or her future grants cite all sources appropriately; Plagiarists can be prohibited from serving on PHS advisory committees (like study sections) for a period of time (e.g., 2 to 10 years); or the plagiarist can be barred from receiving grants for a specific period.

Your ethical obligations



- Protect research participants
- Protect the integrity of the data
- Protect the integrity and reputation of your institution

Thanks very much.