To Cite or Not To Cite:

The Plagiarist's Dilemma

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Overview

- OIG and Research Misconduct
- Plagiarism
  - What is it?
  - Why do we care?
- Detection Methods
- Appropriate Credit
  - (Q)CR Method
  - Community Standards
- Case Studies
  - Copied text
  - Copied images
  - Copied ideas
- Favorite Excuses/Explanations
Who is NSF OIG?

- Independent office reporting to the Congress and NSB.
- Promote economy, efficiency, and effectiveness.
- Prevent and detect fraud, waste, and abuse.
- Accomplishes mission through:
  - Audits
  - Investigations
    - Criminal and Civil (e.g., false claims, false statements, embezzlement).
    - Administrative (e.g., regulatory and policy violations).

Where does plagiarism fit in?
OIG is delegated the responsibility for investigating research misconduct allegations involving NSF programs.
Research Misconduct (RM)


- RM means fabrication, falsification, or plagiarism in proposing or performing research [], reviewing research proposals [] or in reporting research funded by [the agency]. 45 C.F.R. 689.1.a

- Not honest error or differences of opinion.

- Must be reckless, knowing, or intentional and not careless.

- Must be “a significant departure from the accepted practices of the relevant research community.”

Plagiarism: What is it?

Federal definition:
- “the appropriation of another person’s ideas, processes, results or words without giving appropriate credit.”

45 C.F.R. 689.1(a)(3)

- Keywords:
  - another person
  - or
  - appropriate credit
To Cite or Not To Cite:
(The abridged edition)

When in doubt,
provide quotation marks
and citation to where you got it.

Plagiarism: Why do we care?

NSF’s Statutory Mission:

“to promote the progress of science; To advance the national health, prosperity, and welfare; To secure the national defense. . .”

Accomplished by awarding grants, cooperative agreements, and contacts based on proposals demonstrating:
(1) intellectual merit and (2) broader impacts.

NSF expects the results of the funded work to be disseminated to the broader scientific community.
Plagiarism: Why do we care?

- Fairness
  - NSF program officers/reviewers assess the proposers’ ability to carry out the proposed work and the proposers’ understanding of the current state of the field.
  - An NSF proposal is a request to obtain Federal funds from the taxpayer.

- Economy, efficiency, and effectiveness
  - Do not want to pay for research already completed.
  - Do not want subsequent work to be based on misrepresented work.

How does this compare to fraud?

Plagiarism: Relationship to Fraud

Fraud: a misrepresentation of a material fact to induce another to act to their detriment.

If NSF awards funds based on a proposal containing plagiarized material – the case is analyzed under the criminal and civil fraud statutes and common law fraud doctrine.

Award funding may be temporarily suspended during the process.
The Inquiry/Investigation Process

- Allegations
- Inquiry
- Investigation
- Adjudication
- Appeal
- Final Decision

Institution Referral Process

NSF Grant Conditions require:
If the institution determines that an investigation is needed
it MUST notify NSF.

The Research Misconduct Finding

For an NSF finding of RM the preponderance of the evidence must support:
The act (e.g., plagiarism) committed by the subject; and
The subject’s intent in doing the act was at least reckless.

<table>
<thead>
<tr>
<th>Careless</th>
<th>Reckless</th>
<th>Knowing</th>
<th>Intentional (purposeful)</th>
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<tbody>
<tr>
<td>Reasonable Person Standard</td>
<td>Individual Standard</td>
<td></td>
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<tr>
<td>No Finding</td>
<td>Finding of Research Misconduct</td>
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Where would you put copy-and-paste plagiarism on the intent continuum?
OIG retains independent investigative authority. An institution's final determination is not binding on NSF.

At NSF

OIG investigates and recommends,

the Deputy Director decides.

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## The Inquiry/Investigation Process

**Possible Outcomes**

<table>
<thead>
<tr>
<th>University Actions</th>
<th>NSF Actions</th>
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<tr>
<td>Letter of Reprimand</td>
<td>Letter of Reprimand</td>
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<tr>
<td>Training Requirements</td>
<td>Training requirements</td>
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<td>Internal Certifications</td>
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<td>Termination of Awards</td>
<td>Assurances</td>
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<tr>
<td>Prohibition from service on committees</td>
<td>Other monitoring</td>
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<td>Prohibition from applying for funds</td>
<td>Suspension of award</td>
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<td>Suspension</td>
<td>Termination of award</td>
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<tr>
<td>Loss of tenure, rank, or pay</td>
<td>Prohibition from service to NSF</td>
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<td>Termination of employment</td>
<td>Government-wide Suspension and Debarment</td>
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<td></td>
<td>Criminal or civil penalties</td>
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<td>PFCRA liability (<em>i.e.</em>, pay $ damages)</td>
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Plagiarism Detection Methods

- Software
  - Only finds textual similarities – does not determine plagiarism.
  - Proactive reviews by OIG.
  - Many programs out there with different features.

- Review process
  - NSF program officers and reviewers frequently notice text copied from their own works appearing in proposals.

- General complaints/allegations

**BOTTOM LINE:**
There is no substitute for a manual analysis.

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What is “appropriate credit”?

- Depends in part on the “relevant research community.”

- Basic idea: tell the reader what material you copied or paraphrased and give the reader a map back to where you got it.

(Q) CR
Quotation  Citation  Reference
(Q) *Citation*

- The indicator where the copied or paraphrased material appears in your work that leads you to the bibliographic reference.
  - Examples:
    - Footnote (¹)
    - Endnote ([1] or ¹)
    - Parenthetical (Moore, et al. 2009)

- For images and figures this also might include additional information.
  - *e.g.*, “adapted from reference 1”
  - “image taken from reference 1”

**How far away from the copied text should the citation be?**

**Is introductory language enough?** (e.g., *In the seminal review by Moore & Busch . . .*)

**What if the citation is copied with the text?**

**Embedded Object**
Hypothetical Case: Copied Images

Source

Subject

Embedded citation & reference

Is there appropriate attribution?

(Q) C R

Reference

- The entry in the bibliography to which the citation points the reader.

- The reference should give enough information to take the reader to the source from where you obtained the material.

- In an NSF proposal, “References cited” is a separate section of the proposal and does not count toward the 15 page limit.

Why would NSF not count this in the 15 pages?
**(Q) C R**
General Considerations

Questions we do ask:
- Is the copied material distinguished from original material so that the reader (reviewer) will not mistake it as original work?
- Do the citation and reference lead back to the source used?

Questions we do not generally ask:
- Did you get the style correct for your field?
- Did you use the most appropriate reference for the material?

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Community Standards

- Institutional Policies
- Professional Societies
- Journal Policies

Is there a different standard for faculty versus students?

Are there different standards for proposals and peer-reviewed journals?

NSF Grant Proposal Guide: The full proposal . . .

- “should present the merits of the proposed project clearly and should be prepared with the care and thoroughness of a paper submitted for publication.”

- “NSF expects strict adherence to the rules of proper scholarship and attribution. The responsibility for proper attribution and citation rests with authors of a proposal; all parts of the proposal should be prepared with equal care for this concern. Authors other than the PI (or any co-PI) should be named and acknowledged. Serious failure to adhere to such standards can result in findings of research misconduct.”
Case Study: Copied Text

- PI submits a proposal containing material prepared by two of his students, neither of whom he identified as a co-author of the proposal.

- The University investigation showed that Student 1:
  - provided approximately half of the material to the PI;
  - knew that the material was for a proposal which would support his dissertation work; and
  - had no formal or informal training or writing experience in English.

  How would you resolve it?

Case Study: Copied Text

- How the University resolved it for Student 1 . . .
  - Accepted responsibility for not training its student.
  - Provided training, mentoring, and other support services.

- How NSF resolved it based on our recommendation . . .
  - No finding of research misconduct because he lacked sufficient intent.

  What about Student 2 (who had already graduated)?
  And the PI?
Case Study: Copied Text

- Investigation showed:
  - the PI had copied from Student 2's masters thesis.
  - Student 2 had copied text without attribution into his thesis.
  - the PI was the thesis advisor.
  - Student 2 had no knowledge that the material would be copied into an NSF proposal.

How would you resolve it regarding:

Student 2?
the PI?

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Case Study: Copied Text

- How the university resolved it . . .
  - The Student 2 allegation was handled in a separate academic misconduct process with no NSF nexus.
  - The PI was found to have plagiarized from his own student’s thesis and required to receive training and monitoring.

- How NSF handled it based on our recommendation . . .
  - The PI received a finding of research misconduct, and was required for a period of years to provide certifications and assurances, to undergo training, and to be banned from serving as an NSF reviewer.
What about ©?

- Copyright is the **author’s right to prevent** others from using his/her **expression of an idea**.
  - Protects the expression (e.g., text or image), **not** the underlying idea.
  - Generally the author must assert the right; although, there are criminal statutes that allow the government to assert that right in some instances.
  - The author can grant permission to use (i.e., a license) the copyrighted material.
  - Work-for-hire is a copyright principle.

What role does permission play in plagiarism cases?
   **Hint:** who is the “victim” of plagiarism?

What did the NSF definition of plagiarism say about ideas?
   **Hint:** “or”

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Case Study: Copied Images?

"Rio 2016 logo designers deny plagiarism"
Tales Azzoni, The Washington Post, 2 Jan 2011

"The Dance (1909)"
Henri Matisse, MoMA, NYC

Telluride Foundation

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Hypothetical Case: Copied Idea

- Graphical User Interface (GUI)
  MS Office vs. Open Office


Hypothetical Case: Copied Idea

- Lawsuits have generally addressed computer programs in terms of copyright infringement based on the underlying code. Ideas are not protected by copyright.
- Trademark and trade dress (i.e., consumer confusion) are IP schemes that may be provide useful analogies.

Is intellectual theft (plagiarism) the same as intellectual property theft (e.g., copyright infringement)?

If not, how would you cite something like a GUI:
  - with respect to its underlying code?
  - with respect to the how it appears on the screen?
  - with respect to how it functions?
  - is a comment in the “About” window enough?
Hypothetical Case: Unpublished Sources

- A PI is asked to review a proposal for NSF. She signs a confidentiality agreement with NSF in order to review the proposal. She rates the proposal very highly, but NSF chooses to fund another proposal instead.
- The PI likes the proposal so much that she copies the proposed project description into a “new” proposal she submits under her own name. She does not identify the proposal she reviewed as her source.
- Unless the NSF proposal is awarded, it is not a public document. It is therefore unpublished.
- Has the PI plagiarized?
- How does she cite the source?
- Does it matter if she did not copy the text verbatim?
- What if she only copied background material?
- What if the source was
  - a manuscript she reviewed for a journal?
  - a former student’s unpublished lab report sitting in a drawer?

A few of our favorite excuses

Can you explain why these do not work?

- It's only background material.
- The reviewers are smart enough to know what is mine and what is in the literature.
- I used the same words, but I meant something different.
- I was told that having between 70-80 citations in a proposal was enough. Anymore and I would look like I wasn’t proposing to do something new.
- I was sick that day and ran out of time.
- My graduate student / post doc / lab manager / etc. wrote that part and I assumed they knew how to cite.
- It’s not plagiarism if you change every seventh word.
- I copied the original sources that the review paper used so it’s cited.
- I was distracted by bird vocalizations outside my thatched roof hut, grabbed my digital camera ..., and when I returned to my computer where I thought I had saved my changes to the material, it had crashed with the wrong draft saved.
Avoiding the dilemma

• When in doubt, make a clear distinction between what is your original work and what is someone else's.

• Know your communities' practices (hint: look at the standards for the journals in which you publish).

• When you work cross-discipline, know the other discipline's standards also.

• Adhere to the standards.

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Questions?