



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Topics: Whistleblowing

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Description

A guide that provides information and resources on teaching responsible conduct of research that focuses on the topic of whistleblowing. Part of the Resources for Research Ethics Education collection.

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Summary

Someone who has witnessed misconduct has an unmistakable obligation to act.

(NAS, 1995)

While this obligation might be met by formal reporting of the alleged misconduct, this is only one of many paths open to the potential whistleblower.

Definition

According to the 2010 definition from the US Office of Special Counsel, a whistleblower discloses information he or she reasonably believes evidences:

- a violation of a law, rule, or regulation
- gross mismanagement, gross waste of funds, or abuse of authority
- a substantial and specific danger to public health or public safety

Roles and Perspective

Whistleblower

The whistleblower should (Gunsalus, 2010; Keith-Spiegel, 2010):

- ***Keep good records***

- **Avoid the mistake** of an inappropriate allegation, begin by asking questions and seeking perspective
- **Appropriately report** or respond to possible misconduct
- **Not take responsibility for investigating** the misconduct or mete out justice
- **Maintain objectivity** with a goal of identifying and correcting any possible misunderstandings

Accused

Even though he/she may feel threatened or offended by the accusation, the accused should:

- **Properly document** all necessary information
- **Cooperate** with any possible investigation
- **Maintain objectivity** with a goal of identifying and correcting any possible misunderstandings

Necessity and Obligation

- Because of the secretive nature of many research environments, misconduct will only come to light if someone close to the project blows the whistle.
- This relative secrecy is driven by many different factors, for example:
 - *sheer practicality*
 - *protection of credit or intellectual property rights*
 - *worries about the possible misuse of preliminary data*

Consequences

- Both whistleblowers and those accused may suffer whether or not the allegations are ultimately sustained.
- As with good research, the integrity of an allegation of research misconduct is best served by keeping clear, defensible records of what happened and when.

Background

The National Science Foundation states that:

Whistleblower disclosures save lives as well as taxpayer dollars. They play a critical role in keeping our government honest, efficient and accountable. Recognizing that whistleblowers root out waste, fraud and abuse, and protect public health and safety, federal laws strongly encourage employees to disclose wrongdoing. Federal laws also protect whistleblowers from retaliation.

Why be a Whistleblower?

There is a considerable range of opinions among scientists about how to respond to perceived misconduct -- and an even greater difference between scientists and administrators (Wenger et al., 1999). Yet, as a 1995 publication of the National Academy of Sciences advises:

Someone who has witnessed misconduct has an unmistakable obligation to act.

In addition to this proposed obligation, other reasons to favor whistleblowing include:

- Personal sense of **responsibility**
- Protect against the risk of **wasted resources**
- **Clarify** something that may either not in fact be wrong or is easily remedied
- Decrease the risk that someone else will uncover the misconduct and questions will be asked about **why you didn't say anything**

Examples of Whistleblowing

| Whistleblower | Incident | References (see Resources) |
|----------------------------|---|--|
| Roger Boisjoly | Actions within Morton Thiokol prior to the O-ring failure believed to be the cause of the Challenger disaster in 1986 | Presidential Commission on the Space Shuttle Challenger Accident, 1986 |
| Robert Sprague | Data fabrication by Stephen Breuning | Holden, 1987 |
| Jeffrey Wigand | Knowledge of nicotine's addictive properties within the Brown and Williamson Tobacco Company | Gleick, 1996 |
| Margot O'Toole | Alleged misconduct by Thereza Imanishi-Kari, ultimately rejected on final appeal | Kevles, 2000 |
| Peter Mock and John German | Volkswagen software designed to mask true emissions | Kell, 2015 |

Consequences for Whistleblowers

Unfortunately, the evidence is compelling that whistleblowers, not just the accused, suffer adverse consequences. Based on self-reports (Research Triangle Institute, 1995):

- Over 60% of whistleblowers suffered at least one negative consequence, such as:
 - *Being pressured to withdraw their allegation*
 - *Being ostracized by colleagues*
 - *Suffering a reduction in research support, or*
 - *Being threatened with a lawsuit.*
- Approximately 10% noted significant negative consequences, such as being fired or losing support.
- However, fewer than 18% of those suffering the most severe impact on their careers reported that they would be unwilling to come forward with allegations again.

This potential for adverse consequences makes it problematic to place an obligation for whistleblowing on scientists in training, such as postdocs, graduate students, or undergraduate students.

How Should I Report Misconduct?

Because of the serious consequences of an allegation of misconduct, it is important to be clear about the allegation. This concern is particularly relevant for someone with relatively little experience in research or in a specific area of research.

To avoid the mistake of an inappropriate allegation:

- Begin by **asking questions and seeking perspective**. Depending on circumstances, it may be appropriate to talk to:
 - *Peers*
 - *More senior members of the research group*
 - *Someone in an ombuds program, or*
 - *Even the individual whose conduct is in question.*
- Clearly **distinguish between facts and speculation** in presenting an allegation and supporting documentation.
- **Avoid the trap of inferring motives** on the part of others.
- Instead, **stick to the facts** of the case, which will reduce the risk of a loss of credibility.

These considerations do not diminish the need for whistleblowing.

Regulations and Guidelines

Scope of Regulations

To foster fair and timely responses to allegations of research misconduct, regulations typically include:

- **safeguards** for informants and for the subjects of allegations

- an expectation of **objectivity and expertise**
- adherence to reasonable **time limits**, and
- respect for **confidentiality**.

Whistleblowers are protected under rulings from both state and federal governments.

Legal Protections

Whistleblowers are entitled to a number of legal protections.

The first amendment to the Constitution, guarantees free speech, giving whistleblowers legal protection from retaliation.

The federal False Claims Act is more far-reaching (US Code, 1986):

- Originally developed to protect the federal government from fraudulent contractors during the Civil War, the Act provides that any individual with primary knowledge of fraudulent use of federal funds can bring charges.
- If a defendant in a False Claims case is found liable, then the whistleblower can be awarded 15-30% of the resulting settlement.
- The False Claims Act also specifically calls for significant remedies for any discriminatory action that can be shown to have been taken to retaliate against an employee who has presented a case under the Act.

Current federal policies to protect whistleblowers from retaliation are covered, in part, by:

- Whistleblower Protection Act of 1989
- Department of Health and Human Services (2000)
- Whistleblower Protection Enhancement Act of 2012, which led to the establishment of a Whistleblower Ombudsman to:

educate agency employees about prohibitions on retaliation for whistleblowing, as well as employees' rights and remedies if subjected to retaliation for making a protected disclosure.

The regulations are intended to place obligations on institutions both to prevent and to remedy retaliation against whistleblowers.

In addition to federal regulations:

- Most states and/or institutions typically have specific protections for whistleblowers.
- Most institutions, and many professional societies and journals, offer guidelines to support the role of the whistleblower.

Guidelines can have as much or more important than the regulations in reducing the chance of adverse outcomes.

Discussion

Case Study 1

Dr. Carlos Gonzalez is a well-known investigator at the peak of his career. He has a reputation for being brilliant, demanding, and intensely competitive. The university values him greatly and he receives offers to move to highly attractive positions elsewhere on a regular basis. His laboratory publishes on average 30 papers a year and he is always included as author.

One of Dr. Gonzalez's first-year postdocs, Dr. Grace Hung, comes to him and says that a very important result recently published by his laboratory in the Proceedings of the National Academy of Science was fraudulent. This paper has already received considerable attention. Dr. Hung says the principal author, Dr. Edward Lansing, made up most of the data because a key assay was not working. This was discovered, she noted, when she tried to utilize the assay.

Dr. Lansing has worked with Dr. Gonzalez for five years. The two have published several papers together and have become personal friends. Dr. Gonzalez hardly knows Dr. Hung.

Questions:

1. How should Dr. Gonzalez respond to this complaint? How should he deal with:
 - a) Dr. Hung?
 - b) Dr. Lansing?

- c) the data that have now been called into question?
 - d) the institution in which all three individuals work?
 - e) the journal in which the possibly fraudulent data were reported?
2. Assume Dr. Gonzalez is unresponsive to Dr. Hung's complaint. How might Dr. Hung follow up on her concerns?
3. Assume that Dr. Gonzalez proceeds by asking Dr. Lansing obliquely about the assay used for the project, mentioning that Dr. Hung seems to have some kind of problem with it. In spite of Dr. Gonzalez's subtlety, Dr. Lansing suspects that this inexperienced postdoc has planted some serious suspicions in Dr. Gonzalez's mind. Since Dr. Lansing is confident of the accuracy of his work, how should he respond to Dr. Gonzalez? Should Dr. Lansing approach Dr. Hung, and if so, what should he say to her?

Case F2 from Teaching the Responsible Conduct of Research Through a Case Study Approach, a handbook prepared by the Association of American Medical Colleges (Korenman SG and Shipp AC, 1994)

Case Study 2

Dr. Alice Charles, a mid-career scientist, was revising and updating a book chapter. This led her to review other articles on the same subject to help determine what new material to cover. During the course of her reading, she came upon a chapter in a major text by Dr. Chris Long, a departmental chair at a leading medical school, that contained long passages from her previous chapter without attribution.

Dr. Charles called Dr. Long and confronted him with her finding. At first, he vehemently denied having used any of Dr. Charles's text inappropriately. Dr. Charles then faxed Dr. Long copies of the offending passages. After some delay, Dr. Long finally responded, acknowledging that the language was indeed remarkably similar. Dr. Long noted that he had engaged younger members of his research group to write portions of the chapter because he was very busy at the time that the deadline was approaching. Furthermore, to defend himself, he pointed out that much of the original research on which her chapter was based was derived from the work of his laboratory. He admitted only to negligence in not adequately monitoring the activities of his subordinates.

Dr. Charles replied that the subordinates were not acknowledged in Dr. Long's chapter either, and that admission of plagiarism required more than an apology. She

indicated her intention to report the matter to Dr. Long's dean and the editor of the text.

Questions:

1. Did Dr. Charles act appropriately? Would you have done anything differently? Considering the difference in status between herself and Dr. Long, was she taking a professional risk?
2. Did Dr. Long do anything wrong? What if he were copying his own previous writings?
3. How would you have handled this matter if you were Dr. Long and were confronted with Dr. Charles's revelations?
4. If you were Dr. Long's dean, how would you handle Dr. Charles's letter, which contained copies of the plagiarized texts?
5. Upon hearing Dr. Charles's complaint, what would you do as editor of Dr. Long's textbook?
6. In the context of proper credit for the writings of colleagues, who is responsible for what is published and what should be done if plagiarism is discovered?

Case B6 from Teaching the Responsible Conduct of Research Through a Case Study Approach, a handbook prepared by the Association of American Medical Colleges (Korenman SG and Shipp AC, 1994)

Case Study 3

What would you do if you inadvertently discovered evidence that the head of your research group had been discarding data points, apparently to make the results of recent experiments (or studies) look better than they actually were?

This case was contributed by Dr. Michael Kalichman (kalichman@ucsd.edu) of the University of California, San Diego. ©2007

Discussion Questions

1. List at least three reasons that the integrity of science is dependent in part on whistleblowing.
2. Describe the relative advantages and disadvantages for an individual who makes an allegation of research misconduct.

3. List at least three steps a potential whistleblower can take to decrease the likelihood of adverse consequences.
4. As a student, should I discard data that does not showcase the point I am trying to make?
5. As a professor, if my student's results seems too good to be true, should I ask them to show me their raw data? What if the results are from a fellow professor?

Resources

- [OEC Whistleblowing Subject Aid](#)
A beginning point for anyone interested in learning more about whistleblowing, including relevant guidelines and good articles and readings to start out.
- [OEC Whistleblowing Bibliography](#)
A bibliography of books, online resources, and articles on whistleblowing

Cited Sources

- Department of Health and Human Services (2000): Public Health Service Standards for the Protection of Research Misconduct Whistleblowers. Notice of proposed rulemaking. Federal Register November 28, 2000 65(229):70830-70841. http://ori.hhs.gov/misconduct/nprm_reg.shtml
- Gleick E (1996): Tobacco blues; the tobacco industry has never lost a lawsuit; but a new billion-dollar legal assault, and a high-ranking defector, may change that. Time 147(11): 54 (5 pages).
<http://content.time.com/time/magazine/article/0,9171,984241,00.html>
- Gunsalus CK (2010): [How to blow the whistle and have a career afterwards.](#)
- Holden C (1987): NIMH Finds A Case of Serious Misconduct. Science 235:1566-1567. <http://science.sciencemag.org/content/235/4796/1566>
- Keith-Spiegel P et al. (2010): [Responding to research wrongdoing: A user-friendly guide.](#)

- Kell J (2015): Here's who figured out Volkswagen was cheating on emissions tests. Fortune Magazine. <http://fortune.com/2015/09/21/volkswagen-emissions-testing-golf>.
- Kevles DJ (2000): The Baltimore Case: A Trial of Politics, Science, and Character. W.W. Norton & Company. Reviewed at: <https://www.nytimes.com/books/98/09/20/reviews/980920.20portert.html>
- National Academy of Sciences, National Academy of Engineering, Institute of Medicine (2009): On Being a Scientist: Responsible Conduct in Research. National Academy Press. <https://www.nap.edu/catalog/12192/on-being-a-scientist-a-guide-to-responsible-conduct-in>
- National Science Foundation: Whistleblower Protection <https://www.nsf.gov/oig/whistleblower.jsp>
- Presidential Commission on the Space Shuttle Challenger Accident (1986): Report to the President. Government Printing Office, Washington, D.C. <http://history.nasa.gov/rogersrep/genindex.htm>
- Research Triangle Institute (1995): Consequences of whistleblowing for the whistleblower in misconduct in science cases. Report submitted to Office of Research Integrity. <http://ori.hhs.gov/sites/default/files/final.pdf>
- US Code (1986): False Claims Amendments Act of 1986. 31 USC Sections 3729-3733. https://www.justice.gov/sites/default/files/civil/legacy/2011/04/22/C-FRAUDS_FCA_Primer.pdf
- US Office of Special Counsel. https://osc.gov/Resources/post_wb.pdf
- Whistleblower Protection Act of 1989. <https://www.congress.gov/bill/101st-congress/senate-bill/20/text>
- Whistleblower Protection Enhancement Act of 2012. <https://www.gpo.gov/fdsys/pkg/PLAW-112publ199/pdf/PLAW-112publ199.pdf>

Notes

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