Ethics Survival Strategies for Graduate Students and Young Professionals

University of Delaware
RCR Seminar
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Consultant to ORI
- An hour and a half on ethics
- Mark Twain on attending a Wagner Opera
Our Agenda

- The Ethical Problems you’re likely to face as a graduate student/young professional
- Adding moral reasoning as a problem solving technique--with examples
- Survival Strategies for Handling Ethical Crises--with examples
What Are the Ethical Problems You’re likely to Face As a Student?
What are the Ethical Problems you imagine you’ll face as a newly-minted professional?
Will you face a serious ethical challenge in your career as a professional?
YES.

The Question is When, Not If.
When Challenged--Tools We All Use To Decide What To Do

- Gut Instinct
- Advice from trusted mentors/friends/family
- Cost/Risk v. Benefit analysis
- Avoidance/Denial/Self-Delusion
- Others
When Challenged--Tools We All Use--Add Moral Reasoning

- What is Moral Reasoning?
- The consideration of how, morally, one ought to act
  - Usually on the basis of moral or ethical principles . . .
  - Usually applied to practical problems
Ethical Systems

- Kantian/ “Deontological” Ethics
- The Categorical Imperative: "Act only according to that maxim whereby you can at the same time will that it should become a universal law."
- Focuses on intentions not consequences--hence deontological
- A “Rights-Based” Ethics--each person of equal worth and deserving equal respect
Ethical Systems, cont.

- Utilitarianism (a form of Consequentialism)
- Jeremy Betham and John Stuart Mill
- “The greatest good for the greatest number”--I.e. moral good means maximizing happiness for all people
Ethical Systems, cont.

- Virtue Ethics--virtues such as honesty, fairness, kindness, courage, respect for others, generosity
- Aristotle
- Focus on character
Ethical Systems, cont.

- Ethical Relativism, I.e. one’s moral position depends on a) context, b) one’s interests--financial, political.
- Extreme form-sometimes called Ethical Egoism: “what’s good for me is good”
Applying Moral Reasoning to topics of public debate

- How do you feel about *stem cell research*? Why?
- What might a Kantian argue?
- A Utilitarian?
- A Virtue Ethicist?
- An Ethical Relativist?
Applying Moral Reasoning to topics of public debate

- How do you feel about *animal rights*? Why?
- What might a Kantian argue?
- A Utilitarian?
- A Virtue Ethicist?
- An Ethical Relativist?
Utility of Moral Reasoning

- Won’t produce “the answer”
- Can Help you understand public and personal issues with greater sophistication
- Can help you understand yourself and your motives
- Can help you better explain yourself
Utility of Moral Reasoning

- Can help develop an important habit of mind. When making a critical decision, ask “what’s the principle on which I should decide this issue?”

- This Can Help Negotiating Regulatory Environments, e.g. human subjects
Knowing Not Only the Rules, But Also the Ethical Principles

- The Principles Underlying Human Subjects Protections
  - 1.1. Every person has the right to determine what shall happen to him or her, what activities he or she shall engage in, and what risks he or she will take. Consequently, research on human subjects cannot be carried out without the subject’s voluntary and informed consent.

  - 1.2. No person shall be placed at risk as a subject of research unless the risks are reasonable in relation to the anticipated benefits of the research.
Knowing the Ethical Principles, contin.

- 1.3. The risks and burdens to subjects in research should not be unjustly distributed. The recruitment and selection of the subjects should be reasonably related to the research and should not impose inequitable risks and burdens on any particular segment of society.

- 1.4. Special consideration and protection should be given to subjects who may lack full capacity to secure their own rights and interests due to age, mental capacity, involuntary custody, cultural barriers or other special circumstances.
Survival Strategies for Graduate Students and Young Professionals

- Knowledge of Principles/Rules for Best Practice in your field
- Understanding Yourself and Your Motives
- Understanding Moral Reasoning
- Assertive Career Management
- Developing Professional Problem-Solving Skills
Categories of Ethical You’re Likely to Face

- Things you do
- Things done to you
- Things you observe
Things you do: Ethical Lapses up to and Including Cheating

- Examples from Research (analogies to other areas of student/professional life)
- Research Misconduct = fabrication or falsification of research data or plagiarism
Other Serious Ethical Lapses by Researchers

- Breaching the confidentiality of the peer review process
- Refusing data access to other researchers
- Maintaining inadequate research records
- Failure to retain adequate research records and data for a reasonable amount of time
Other Serious Ethical Lapses by Researchers

- Misuse of statistical methods or other methods of measurement
- Improper authorship practices
- Failure to disclose conflicts of interest that could bias research design/results
- Serious or continuing non-compliance with research regulations, e.g. protecting human participants in research
Other Serious Ethical Lapses by Researchers

- Sabotage of another's research
- Bad faith (frivolous or malicious) allegations of research misconduct
- Inadequate supervision of research assistants
- Misrepresentation of speculative data and release of data to general audience before peer review
Have You Observed These Behaviors?

- Faking data?
- Plagiarism?
- Deliberate violation of rules designed to protect the public/research subjects?
What’s Wrong With These Behaviors?
What’s Wrong With These Behaviors?

- Dishonest (misrepresent research findings)
- Unfair (stealing credit)
- Disrespectful of Others--violating public trust/personal rights
Why Do People “Cheat”?  

Theories:  
- Pressure for professional survival  
- Sociopathology: 1-2% of every profession/group  
- Ignorance of standards and ethical codes  
- Failure of mentoring of students/young professionals
What Does Cheating Look Like?
In April Brad and his advisor, Professor Shaw, agreed that by working steadily Brad could complete his Ph.D. research and dissertation by the beginning of August. Accordingly, Brad followed up on some employment prospects in industry and landed an attractive job beginning September 1.

Until late June Brad's work progressed well. But then he discovered that the specialized chromatograph in his advisor's lab he needed for a routine but important assay was broken. Prof. Shaw promised to order the part to fix it, but three weeks went by and nothing happened. Prof. Bradshaw had left town for vacation.
Brad contacted the company about delaying his start date, but the company said, 'no,' the offer they had made was contingent on his finishing his Ph.D. and starting his new position by September 1.

Desperate, Brad located a text book on the assay and “estimated” the data the assay would generate for his experiment. At first, Brad thought he would keep this "estimated" data in his files only until the machine was fixed. However, by the first week in August the machine was not fixed and Brad's dissertation defense was set. He used the "estimated" data in his dissertation. Neither Prof. Shaw nor other members of the committee questioned the data. Brad's Ph.D. was awarded and he began his new job.

Years later . . .
How Might Brad Have Handled His Crisis Successfully?
Why do Cheaters say they did it?

“. . . These results had no basis in experimental fact, but instead were manipulated by me to yield a desired result. There was much excitement over [my earlier results] and I began to feel a self-imposed pressure to keep the positive data coming in. . . . “
More complex case, contin.

“. . . It was at this time that I began to [fabricate data]. At the time I realized I was making a grave error in judgment, but as the excitement over the results grew and grew I felt more pressure to manipulate the system. Over time I lost more and more control and felt like I could not stop falsifying experiments.”

From an ORI closed case file
How Could This Young Scientist Have Better Managed His Crisis?
Know Your Own Vulnerabilities

Graduate Student and Professional Cheating occurs at predictable, critical moments:

- When facing the pressure of a major deadline—e.g. dissertation proposal, grant submission, tenure review
- When critical projects or experiments fail
- When finishing a body of work and moving to a new position
What Happens to those who cheat?: the case of research misconduct

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<th>Rank of Respondent</th>
<th>Misconduct</th>
<th>No Misconduct</th>
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<td>Professor</td>
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(ORI closed cases 1998-2002)
ORI Case Evaluation Council: Discussing Penalty for Misconduct
Things Done To You

Wang Lee, a post-doctoral Fellow, worked in Professor Whitcomb’s Lab on a recombinant virus that expressed an antigen normally expressed by melanoma cells.

Under pressure from a publication deadline, Dr. Whitcomb had not sought IACUC permission to inject this virus into mice. He instructed Dr. Lee to inject the virus anyway but to label the cage cards to indicate the mice had been infected with another virus.
Things Done To You

When a complaint by a technician led to an Inquiry by the Dean, Mr. Lee told the Dean that Whitcomb had IACUC permission. He knew this was not the case, but he did not tell the truth because he feared losing his VISA status and having to return to his homeland if Whitcomb were found guilty.

Both Whitcomb and Lee were subsequently charged with Misconduct--Lee mainly for participating in the cover up.
What Might Wang Lee Have Done Differently?
Things Done To You: Another Case

Professor James Saborsky had recently won a major, three-year federal grant for his work on biodegradable plastics. As a consequence, he was able to offer research assistantships to several promising graduate students. One of these was Dana Nevala, who was just completing her M.S.
In her brief career Ms. Nevala had impressed her instructors as both an excellent student and an ingenious laboratory technician. Ms. Nevala was recruited by several universities. She joined Saborsky’s lab because she was very interested in his area of research and found the prospect of multi-year funding to pursue research with a rising star in the field compelling.
For the next two years, work in the laboratory went well despite some communication problems due largely to Professor Saborsky’s nearly doubling his research team thanks to the federal funding. Always busy, Professor Saborsky did not spend as much time discussing her work as Ms. Nevala would have liked.
But, overall she was not displeased. She had completed her course work with high marks and, due to her technical proficiency, she had become the “golden hands” in the lab. Others relied on her to calibrate equipment and to develop assays.
She and Professor Saborsky had an agreement, she believed, regarding that part of the lab’s research program that would constitute her dissertation—the synthesis of a new, pliable plastic. She believed she could finish the experiments and start writing within the year.
Two months later, however, Professor Saborsky announced in a lab meeting that, as the federal grant period was drawing to a close, he wanted to write up the articles flowing from the work and to prepare the final report. He explained that he would not seek renewed federal funding, but rather was negotiating with Biotech Corp. to pursue that part of the lab’s research program that seemed to promise near-term intellectual property development.
He promised a memo the next day assigning duties for writing up the articles and explaining new research directions. Ms. Nevala read Professor Saborsky’s memo with chagrin. He had not included her as an author on several parts of the work where she believed she had contributed important ideas and where, in any case, she had done critical laboratory tests.
Far worse, Professor Saborsky had explained in the memo that the thrust of the new work for Biotech Corp.--synthesis of a pliable plastic--was exactly the work she thought was her dissertation topic. Professor Saborsky wrote that this work should be considered highly confidential until it was developed to the point a patent application could be filed--about two and a half years, he estimated.
What Do the Whitcomb and Saborsky Cases Have in Common?

- Faculty conflict of interest--privileging their interests over their mentees
- Failure of the students to understand the system, e.g. who they could turn to for help
- Failure of the students to engage in good problem-solving
Assertive Career Management: Help Your Mentor Do His or Her Job

- Returning to the Saborsky Lab for a moment, what should Ms Navela have done?
- Develop with Saborsky early a program plan that identifies the work that will constitute her dissertation.
- Insist on regular meetings with Saborsky to review her program; send him short emails of the discussions and agreements--for the record.
Assertive Career Management (continued)

Make sure your mentor has articulated the laboratory/ research groups’ best practices for:

- Data Recording, Control and Use
- Authorship

[Note: The vast majority of Misconduct cases involve data or authorship issues, or both.]
When Mentors Need Help

- Mentoring and Research Misconduct: An Analysis of Research Mentoring in Closed ORI Cases-- David E. Wright, Sandra L. Titus, Jered B. Cornelison, Science and Engineering Ethics 14:3 (Sept. 08)
Mentoring Study Findings

Table 1 Mentor’s role (in cases of Trainee Misconduct)
Did the mentor review Trainee raw data?
Yes: 27%
No: 73%
Did the mentor set standards e.g. keeping a lab book, recording/maintaining data, authorship?

Yes: 38%
No: 62%
Things You Observe

- Melissa Yaeger had come to dislike her Ph.D. advisor, Prof. Sally Williams, who, she thought, exploited her by making her do menial chores that impeded progress toward her degree and then giving her poor evaluations. In addition, Melissa suspected Prof. Williams of frequently plagiarizing small passages of papers she found on the internet.
Melissa Yaeger and Prof. Williams

(microplagiarism) as she constructed her own articles. After being assigned yet another menial task by Prof. Williams, Melissa told another member of her guidance committee and fellow students about the suspected plagiarism. She then went through two of Prof. Williams recent articles and,
Melissa Yaeger and Prof. Williams

using the Google search engine found unattributed sources for several key passages. She filed an allegation of Plagiarism against Prof. Williams with the University’s Research Integrity Officer. Prof. Williams was investigated by the University, found guilty of plagiarism and, among other penalties,
Melissa Yaeger and Prof. Williams

suspended from the University for a year. Melissa set about trying to find a new Ph.D. advisor who would help her finish her degree and fund her work but had serious difficulty. One junior faculty member told her she had acquired a reputation as a “mean-spirited trouble-maker.”
How to be a Whistleblower

• Reflect on your motives (most allegations are filed by collaborators involved in a dispute. Corollary: Regardless of motive, the whistleblower may be right)
• Report to a senior, disinterested person
• Provide as much specific evidence as possible
• Report and stand aside (do not try to investigate or prosecute)
Developing Problem-Solving Skills

- You will very probably be involved in professional disputes which, if mishandled, can do serious damage to your career.
Developing Problem-Solving Skills

In Disputes:

- Know the applicable policies or regulations at issue
- Be collegial
- Assume your colleague has honorable intentions
- Communicate clearly, in writing if necessary
Summary: Survival Strategies for Graduate Students and Young Professionals

- Knowledge of Principles/Rules for Best Practice in your field
- Understanding Yourself and Your Motives
- Understanding Moral Reasoning
- Assertive Career Management
- Developing Professional Problem-Solving Skills