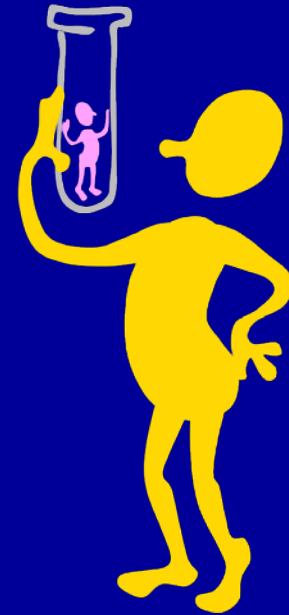


Teaching About Research Integrity



I want YOU
to teach RCR



**Beth A. Fischer, PhD, &
Michael J. Zigmund, PhD**
University of Pittsburgh

Acknowledgments

- Beth Fischer
- Muriel Bebeau
- James Rest
- Many teachers and researchers

Outline

- Why teach RCR
- But...isn't it too late to have an impact?
- Rest's 4-component model of morality
- Specifics of new federal requirements
- What & how to teach?
- A model for teaching RCR

Why should you teach RCR?

- Good science must be responsible science
- Misconduct is toxic
- RCR training is an obligation
 - Funding agencies
 - Most academic institutes
- No one else will probably do it (well)



But...isn't it too late to have an impact?

- We are teaching the norms
- Many grew up outside USA
- Data support ongoing moral development

4-Component Model of Morality (Rest, et al, 1983)

Component

1. Ethical
Sensitivity

2. Ethical
Reasoning

3. Motivation

4. Follow-
through

4-Component Model of Morality (Rest, et al, 1983)

Component	Instructional Focus	Sample Activity
1. Ethical Sensitivity	Subject matter; Norms of field	Practice ID Issues

4-Component Model of Morality (Rest, et al, 1983)

Component	Instructional Focus	Sample Activity
1. Ethical Sensitivity	Subject matter; Norms of field	Practice ID Issues
2. Ethical Reasoning	Develop well-reasoned position	Analyze case, provide arguments

Ethical reasoning

- Knowing the rules \neq adequate
- Dilemmas = competing values, needs
- New technology \rightarrow new issues

Teaching ethical reasoning

- Focus on process, not solution
- No right answer
- Probing vs correcting a position
- Assign devil's advocates
- Promote discussion.



Heinz and the Drug*

A classical dilemma

Heinz's wife was near death, and her only hope was a drug that had been discovered by a pharmacist who was selling it for an exorbitant price. The drug cost \$20,000 to make, and the pharmacist was selling it for \$200,000. Heinz could only raise \$50,000 and insurance wouldn't make up the difference.

*http://en.wikipedia.org/wiki/Heinz_dilemma

Heinz and the Drug*

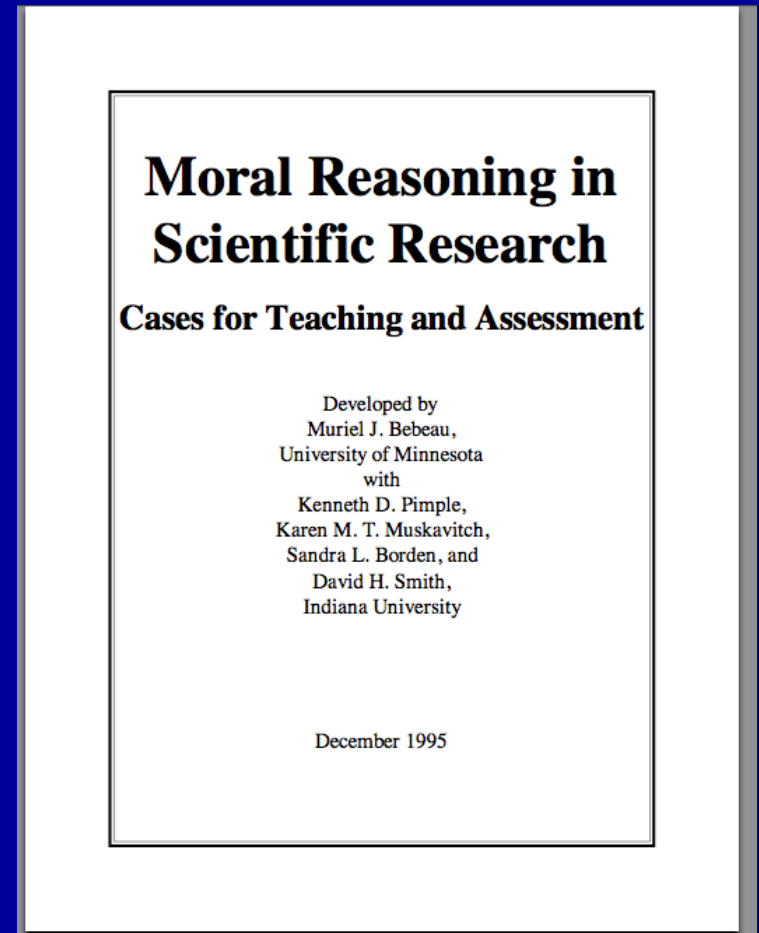
A classical dilemma

He offered what he had to the pharmacist, and when his offer was rejected, Heinz said he would pay the rest later. Still the pharmacist refused. In desperation, Heinz considered stealing the drug. Would it be wrong for him to do that?

*http://en.wikipedia.org/wiki/Heinz_dilemma

Components of well-reasoned position

1. ID affected parties
2. Protagonist's responsibilities
3. Root of dilemma: conflicting needs, obligations
4. Possible actions & likely outcomes



4-Component Model of Morality (Rest, et al, 1983)

Component	Instructional Focus	Sample Activity
1. Ethical Sensitivity	Subject matter; Norms of field	Practice ID Issues
2. Ethical Reasoning	Develop well- reasoned position	Analyze case, provide arguments
3. Motivation	Apply norms of field	Case studies – profess'l. identity

4-Component Model of Morality (Rest, et al, 1983)

Component	Instructional Focus	Sample Activity
1. Ethical Sensitivity	Subject matter; Norms of field	Practice ID Issues
2. Ethical Reasoning	Develop well- reasoned position	Analyze case, provide arguments
3. Motivation	Apply norms of field	Case studies – profess'l. identity
4. Follow-through	Problem solving; interpersonal skills	Role-playing

Mandates for RCR training

- NIH:
 - NOT-OD-1019 (November 24, 2009)
 - institutional training grants
 - individual fellowships, career awards
- NSF:
 - All grants w/ research (incl. subcontracts)
- Encourage – make available to all
- Curriculum not specified

NIH Recommends

1. COI – personal, professional, financial
2. Policies – human & animal subjects, safe lab
3. Mentor/ mentee responsibilities & relationships
4. Collaborative research (including industry)
5. Peer review
6. Data - acquisition/ lab tools; management; sharing & ownership
7. Research misconduct & policies for handling
8. Responsible authorship & publication
9. Social responsibility; contemporary issues; environmental & societal impacts

Instruction in RCR

(NIH & NSF requirements)

- NIH
 - Application – training plan
 - Competing apps – progress
 - Specify “instructional components” in app.
 - Evaluated by reviewers
- NSF
 - Institution – ensure available, track attendance
 - No required reporting of plans or progress – just on request

Meeting new NIH mandate

Five instructional Components:

1. Format
2. Subjects covered
3. Faculty participation
4. Duration of instruction
5. Frequency

Instructional Components

1. Format

- Didactic & face-to-face discussions
- On-line instruction (only) \pm adequate

2. Subject matter

- courses on use of subjects, or clinical or professional ethics (alone) not adequate

Instructional Components

3. Faculty participation (in teaching)

- Highly encouraged
- Specify formal & informal instruction
- Formal: can rotate through roles

Instructional Components

4. Duration

- ≥ 8 contact hr
- Encourage spaced (vs massed)

5. Frequency

- ≥ 4 yr
- At least once/rank
- Personalized plan

One Model for Teaching RCR

Key elements of a program

1. Begin right away

Key elements of a program

- Make part of research/instructional program
- Announce in orientation materials
- Discuss at first sessions
- Provide instruction to *all* participants
 - Students
 - Staff
 - Co-investigators

Best if in context

- Didactic courses
- Professional skills training
- Lab meetings
- Informal discussions

Key elements of a program

1. Begin right away
2. Taught by practitioners

Key elements of a program

instructors

- working researchers
- philosophers
- teams?

- understand ethical issues
- know norms of field
- model interest in ethics
- faculty learn by teaching

Key elements of a program

1. Begin right away
2. Taught by practitioners
3. Integral to *all* aspects of training
 - Doing research
 - Writing research articles
 - Oral presentations
 - Teaching and mentoring

Key elements of a program

1. Begin right away
2. Taught by practitioners
3. Integral to *all* aspects of training
4. Gradually increase demand
 - Attend case discussion
 - Lead discussion
 - Write case and notes

Key elements of a program

content

- philosophical principles
- “high crimes”
- “misdemeanors”

Key elements of a program

1. Begin right away
2. Taught by practitioners
3. Integral to *all* aspects of training
4. Gradually increase demand
5. Cover all critical issues

Key elements of a program

1. Begin right away
2. Taught by practitioners
3. Integral to *all* aspects of training
4. Gradually increase demand
5. Cover all critical issues
6. Ensure competence

Training Trainers on about Professional Development and Research Ethics

June 3-6, 2013

Annapolis, MD



Michael J. Zigmond

Beth A. Fischer

zigmond@pitt.edu

www.skillassist.org

