Environmental Justice
Fall 2017
BIOS 50544 / PHIL 43308 (ALSO STV 43396 & IIPPS 50901)

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Office hours: Tues/Wed 2-3:15; other times are by appointment, per sign-up sheet on office door.

Office: 211 Malloy, email: kshrader@nd.edu
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Class Time: Tues 3:30-6:15
Classroom: Malloy 220

Course goals: to understand problems of environmental injustice (EIJ) throughout the world
understand how discriminators use poor science/ethics/logic against minorities and the poor
understand the many conflicts of interest that face scientists doing environmental research
teach people to avoid suspect inferences, default rules, and subjectivity in science/ethics
use classical ethical techniques for resolving ethical dilemmas of EIJ
rethink the various ways that unethical science can compromise values of objectivity, justice, free
informed consent, duties to the common good, rights to know, and responsibility

Course Overview

I. EJP Severity: How Serious Are Environmental-Justice Problems (EJP)?

II. EJP Causes: Why Do Good People Do So Little About EJP?

Ignorance about EJP
"Science Spin" of Special Interests
Citizens’ Weak Analytical Skills

Solution: read NY Times; Wed. paper
Solution: read web materials and Taking Action
Solution: master 5 criteria & fallacies; read National Academy documents

III. EJP Solutions: How Does Scientific, Logical, & Ethical Analysis Help Resolve EJP?

Solution: use Singer, One World
Solution: use Shrader-Frechette, EJ

Questions:
At beginning of each class, the professor asks for questions. At this time, be sure to ask questions about assignments, research, procedures, or prior lectures. For government-research, scientific-journal, journal-database questions for your paper assignments, see professional ND (research or government-document) librarians. Please do not email the professor with a question until after (1) you have read the syllabus clearly and (2) you have asked the question at the beginning of class.

Contact Information: Please see Dr. Shrader-Frechette during her office hours or after class. For appointments, please sign the sheet on her office door. If none of these appointment times will work, please follow directions on the office door and email Dr. S-F to let her know when you are available (give 4 options) Tuesday-Wednesday, 6:15 or 6:30. Dr. Shrader-Frechette receives about 100 emails daily. Unfortunately, this high email volume means she cannot quickly answer student emails. If you need a meeting, she wants to see everyone, so please do not hesitate to see her. For emergency/sickness contact, use email. Be sure to sign up for appointment or contact Dr. Shrader-Frechette about a week ahead of time, as she often is out of town weekly (doing science and ethics advising work in Washington, DC or pro-bono environmental-justice work in US/abroad). Typically, she cannot quickly see those who do not make appointments in advance.

Course Format: The course is an interactive seminar, with prof’s 60-minute interactive lecture, followed by 90 minutes of student-based interaction. Note that weekly assignments are like those for 3 class days. Hence you need to balance time, to do work.

Deadlines:

Paper L Copies for prof & entire class due at beginning of class, 9-5-17. Email copies for prof & 2 reviewers 48 hrs before class begins on this date. Put hard copy in 211 Malloy box before 8 am on Mon before

Project Outline P1 Copies for prof and entire class due at beginning of class, 9-19-17. Email copies for prof & 2 reviewers 48 hrs before class begins on this date. Put hard copy in 211 Malloy box before 8 am on Mon before. 5 points extra for turning in early—see syllabus lecture outlines.

Revised/Corrected P1 Copies for prof and entire class due at beginning of class, 10-3-17. Email copies for prof & 2 reviewers 48 hrs before class begins on this date. Put hard copy in 211 Malloy box before 8 am on Mon before. 5 points extra for turning in early—see syllabus lecture outlines.

Project Paper P2 Copies for prof and entire class due at beginning of class, 10-24-17. Email copies for prof & 2 reviewers 48 hrs before class begins on this date. Put hard copy in 211 Malloy box before 8 am on Mon before. 5 points extra for turning in early—see syllabus lecture outlines.
Deadlines:  

**Paper E**  
Copies for entire class due at beginning of class, 10-31-17. Email copies for prof & 2 reviewers 48 hrs before class begins on this date. Put hard copy in 211 Malloy box before 8 am on Mon before. 5 points extra for turning in early—see syllabus lecture outlines.

**Project Paper P3**  
Copies for entire class due at beginning of class, 11-14-17. Email copies for prof & 2 reviewers 48 hrs before class begins on this date. Put hard copy in 211 Malloy box before 8 am on Mon before. 5 points extra for turning in early—see syllabus lecture outlines.

Note that all required papers must (1) have line-numbering and page numbering (so that prof. can always refer to specific line numbers in making comments on paper). Note that P1, rev P1, P2, and P3 papers must (2) be accompanied by explanations of why student did not correct any earlier comment by prof. Prof will evaluate papers in order in which they were turned in.

Students who do not bring copies of L, P, E papers for class members; 2 copies of R papers for professor; or copies of L, P, E papers for professor’s box (2 days early), on time, will automatically lose 5 points each time. R papers are due on dates listed above, at class.

**Course Requirements:**
For all papers, grammar must be without errors, or students will lose points. For all papers except NYT, be sure that you use (as many as possible) up-to-date scholarly books and articles (especially, from refereed scientific and medical journals). Although professor is one of the top scholars globally in the field covered by the course, do not cite her work in these papers. Also, use no mere website material, no popular sources, no sources likely to have bias (e.g., from industry or citizen-advocacy groups). You may use government documents and journals, even if they are online. Use no newspaper sources, except for paper L (and only if they are absolutely necessary, given the type of paper you are writing). Top journal articles and National Academy of Sciences documents are needed. Other requirements are below:

1. **2 one-page assigned papers**: 1 local (L), 1 ethics (E); bring hard copies for entire class, and put hard copy in professor’s box, 211 Malloy (and send professor e-mail copy), 48 hours before class beginning at which paper is due (see explanation on pp. 1-2 of syllabus).
2. **6 one-page review papers (R)**: of original P1, P2, E papers of persons on your right and left. Be ready to present R paper in class, and bring 2 copies to class.
3. **a two-page project outline P1** (copies for class); a revised P1 (copies for class); a longer project paper/letter P2; a final P3 (including power-point presentation of P3 for class); a xerox copy of what you send out (corrected P2 = P3) to community/group/officials. Send reviewer and professor an e copy, and put hard copy of paper in professor’s box (211 Malloy) at least 48 hours before class when paper is due.
4. **in-class analysis/attendance** at every class (C). Excellent presentations (not reading them!) of L, E, P1, P2, P3, and R papers help count for this grade. If you forget class or professor copies, you lose 5 points.
5. **quizzes (Q) on reading for the week**; watching 1 video (V) and turning in video sheets for “Trade Secrets.”
6. **NY Times summaries** (S) on weekly EJ problems; turn it in at beginning of class; NYT articles must be from previous 6 days and must use flawless grammar.

**Basis for Course Grade:**
There will be no tests, but course grade will be determined by weighting each of the following items as 20 percent: (L, E) + (6 Rs) + (P1 + P2 + P3) + (S, C) + (Q, V).

Students are encouraged to develop their own arguments and, especially, to develop arguments that differ from those of the professor. Students will be graded only on the logic they employ, the quality of their argument methods, and the factual correctness of factual claims, not on the content of their opinions/positions. Be sure to use the 5 criteria and to avoid logical fallacies.

No late papers/assignments will be accepted, at all, except in the case of a family death or a student illness. (Doctor's note is required.) All assignments are due at the beginning of class, and they will not be accepted later. Athletes who must be out of town should turn in papers early and do quizzes early.

**Main Course Work:**
Students will choose the same project (for papers L, P1, P2, and P3) on which to work independently. In the past, many ND students have analyzed draft environmental-impact statements (2500 are done each year in the US), particularly for poor and minority communities. Others have assessed ethical issues underlying current or proposed scientific or environmental legislation, proposals, and policies.

**Choose any Videos**
(1) Coverup at Ground Zero (ABC “Turning Point”), (2) “Declassified: Human Experimentation,” (3) For Extra Credit

NOVA: “A Plague on Our Children,” or (4) “Save the Males.” All are on second floor of library.
Background Reading on Risk-Assessment Methods


Texts

(1) parts of US National Academy of Sciences, RA, UR, to be read online (optional).

(2) Shrader-Frechette, Taking Action, Saving Lives (NY: Oxford University Press, 2007); available from Amazon and bookstore at about $23; and from Oxford U Press for about $20 (if you use coupon on professor’s website); and Environmental Justice, $19, by using promotion code 24842, ordering at www.oup.com/us ($33 Amazon).

(3) Peter Singer, 2002, One World: The Ethics of Globalization; $6 on Amazon.


Extra-Credit Papers:

Must be of form A or E (syllabus, pp. 4,6-8). Select topic, in connection with professor, before Fall break. Papers (hard copy in 211 Malloy box before 8 am on Mon before) due by email 48 hours before class on 11-7-17. In grading, paper will receive same weight as E paper.

Format for 1-Page (Only) Assignment, Weekly NYT Summaries:

1. Use only articles from the previous 6 days. Use Oxford University Press formatting-style for New York Times summaries each week, and put this NYT citation at the top of the summary page, e.g., Gardiner Harris, “Congressional Investigators Are Critical of F.D.A. ’s Efforts to Detect Drug Dangers,” The New York Times CLV, no. 53559 (April 24, 2006): A12. (Remember that newspaper style and grammar are not the same as standard style/grammar.)

2. One-page NYT summaries should have 3 paragraphs. First paragraph should be the longest and summarize main points of the article. Second paragraph should explain why the issue is an EJ problem. Third paragraph should summarize what you can do to help alleviate this problem.

3. Cut out the NYT article from the newspaper; always staple it to the back side of your summary; use only articles from the last week.

4. Bring hard copy of NYT subscription proof with first Wednesday paper; staple this proof to article and your paper.

Format for Local EJ Paper L: Give full citation at top of page to an article that discusses some local, state, or national EJP that has not been resolved and that is waiting for some local, state, or federal action – in which you can play a role or make a difference. The goal of this paper is (1) to help you choose a topic for papers P1, P2, P3; (2) to help you choose a topic that will make a difference in the world – especially by helping some disenfranchised group or helping your local-state community; and (3) to help you learn to look for EJ-relevant draft environmental impact assessments, proposed rule changes, proposed regulation changes, proposed policies, or draft risk assessments – that you can evaluate as part of class work. Remember that the communities/issues/industries who most need your help are not rich, do not have websites, and are not well known. Begin early to do “detective work” to find an important problem to work on. For instance, google “draft” & “impact” & “pollution” – or google “EPA,” “regulations,” “draft” – or go to the EPA website, or talk to civic leaders, or check the Federal Register – all of which are ways to look for projects. In paper L, first paragraph should tell (1) who the vulnerable EJ group is at risk, e.g., children, Latinos, etc., (2) what are the risks they face, and (3) why specifically, they face them – the causes of the EJ problems. Second paragraph should give one or two sentences of personal and institutional solutions to this problem. Third paragraph should give at least 5 relevant scientific-journal references. References should be from recent, first-rate ethical, medical, and scientific journals/books (or recognized government sources). Use no mere web data, and put references in standard format, as in model-paper P1 on professor’s website. Use the 5 criteria in your arguments. Do not pad the bibliography, and use only references that you cite in text. Do not make claims that you cannot back up with citations, and give several reasons for your claims. Have a very smart person read your paper, ahead of time, to look for logical, conceptual, and grammar problems. Rewrite the paper several times to be sure it is
logical, clear, well argued, and grammatical. Always check the grammar paper given by professor, before you turn in your paper. Be sure to use correct citation format, as in model paper. At class, bring 1 copy for professor and 1 copy for each class member. Students who forget extra copies, for prof. or for class, lose 5 points. At least 48 hours before beginning of class (at which paper is due) email profreviewers copies, and before 8 am on Monday before, put hard copy in professor’s box (211 Malloy).

Format for Analysis Paper A or Ethics Paper E (on Singer, chs. 1, 2, 3, or 5): make copies for professor and all class members; 1 page maximum.

(1) Give one-sentence quotation + one-sentence argument, + one sentence explaining why flaw is supportive of/damaging to the author’s position. Repeat (1) 4 times, so that you have 15 sentences – each a complete argument in the single sentence after the quotation. Use the 5 criteria and avoid fallacies. Always check the grammar paper given by professor, before you turn in your paper. (2) below explains an example of the paper.

(2) Employ same format as given in KS-F sample critique of Lewis later in syllabus and on website, or use same format for E as given in two Locke papers later in syllabus.

The E paper is like paper A in format, but E’s content should be partly ethical, not purely scientific-logical. Use the 5 criteria. To help in your analyses, there is much ethics material in the Singer and Shrader-Frechette course readings. From Singer volume, choose which 3 E-paper topics (priority ranked) you would like, pro or con (8 options; see p. 13). Before Friday noon of the first week of class, put 3 priority-ranked E topics (first come, first served) in box by professor’s door at 211 Malloy. If you have another topic you would like, propose it to professor at the same time, plus the 3 required topics.

E assignments are “first come, first served”! Note that “con” papers are easier to do than “pro” papers because, if you support a person/position, you must find reasons that are not already used by the person to support his/her position – i.e., you must provide original, new complete arguments for agreeing with the person. If you are “con,” you need only use an argument to show why a claim is doubtful. Keep key claims in E papers of the form: “A is B because C.” When you do the paper, be sure to have all 3 parts of paper, and avoid any redundancy. Do not make claims that you cannot back up with citations, and give reasons for your claims. Have a very smart person read your paper, ahead of time, to look for logical, conceptual, and grammar problems. Rewrite the paper several times to be sure it is logical, clear, well argued, and grammatical. Be sure to use correct citation format, as in model paper. At least 48 hours before beginning of class (at which paper is due) email profreviewers copies, and before 8 am on Monday before, put hard copy in professor’s box (211 Malloy). Students who forget extra copies, for prof. or for class, lose 5 points.

Format for 1-Page (Only) Assignment, Paper R (Review):

6 one-page review papers (R), of P1, P2, E papers of persons on your immediate right and left are due at class on same day as the person’s papers are due. Have a very smart person read your paper, ahead of time, to look for logical, conceptual, and grammar problems. Bring copy for professor, and for person being evaluated, and keep a copy for yourself to use when you present your paper in class, or you will lose 5 points. Be as detailed and precise as possible; make no general points; and use the 5 criteria. Each of these R papers must have at least 6 numbered points/sentences (3 positive, 3 constructive criticism), with blank lines between points, assessing the paper. Each sentence must be of the form: “A is B because C.” Sample positive sentence: “Mary Smith’s argument two is more convincing because she uses arguments and citations from the very top scientific journals, Science, Nature, and Environmental Health Perspectives.” Sample constructive-criticism sentence: “Joe Brown’s second argument is weak because, although Joe seems possibly correct to argue that increased local breast cancers occurred because of dioxins released from a nearby Monsanto plant, Joe does not systematically eliminate other likely causes of the cancers, such as family history or genetics.” Avoid hasty generalizations, such as “Joe’s paper is good because . . .” Make very specific positive and negative comments about specific good/bad aspects of one argument or claim of author, and make no general statements about the paper or about any argument. Each point must be very precise and very clear. At least 48 hours before beginning of class (at which paper is due) authors of P1, P2, E papers should email profreviewers copies. Before 8 am on Monday before, authors should put hard copy in professor’s box (211 Malloy). In email subject line put: “E paper for EJ” and “R paper for EJ” and so on. If authors do not send paper to professor and evaluators in time, authors of P1, P2, E papers will lose 20 points. Reviewers’ Format: at center top of paper R, put: “Review of Joe Smith Paper A.” Skip 2 lines, and at far left, put your own name, followed by the name of the class: “EJ class. Always check the grammar paper given by professor, before you turn in your paper. Students who forget extra copies, for prof. or for class, lose 5 points.
Format for Project Paper P1: See earlier comments on L paper; this P1 paper follows that one. Make 1 copy for prof + copies for all members of class; 2 pages max. (use 1 pg. front, back). Use recent govt. documents and scientific journals to back up your claims. At least 48 hours before beginning of class (at which paper is due) authors of P1 papers should email prof/reviewers copies. Before 8 am on Monday before, authors should put hard copy in prof's box (211 Malloy). Students who forget extra copies, for prof. or class, lose 5 points. Use sample P1, BioScience format, for doing (argument-objection-response) items in (8) below. Be sure to number each item on your P1 paper, as below, and use recent govt documents & scientific journals to back up your claims. Try to use the 5 criteria in your arguments. Have a smart person read your paper to look for logical/conceptual/grammar problems. Number and label each of 9 parts below.

[last name, first name]                  [date]

(1) Your department and your year in school.
(2) Title of draft EIS/TA/QRA/law/regulation (document being assessed) + website address and full bibliographical information, in correct citation formation (in-text citation; references at end).
(3) 1 succinct, clear, complete, precise sentence on what the EJU problem is.
(4) 1 succinct, clear, complete sentence on what the document says about the problem.
(5) 1 succinct, clear, complete sentence on your thesis (what you think about what document says).
(6) Relevant deadline, if any, and names/addresses of those to whom responses should be sent.
(7) 1 sentence on why the EJU problem is important.
(8) 3 argument-objection-response sentences (1 each) on 4 apparent problems in document (12 sentences total, 4 argument chunks, total); each chunk should constitute a complete argument.
(9) 10 current scientific references pro/con the issue (not just from the net; use scholarly journals or government documents, and do not cite popular materials); be sure bibliography citations are complete.

Format for Project Paper P2: Use the 5 criteria, redo paper P1, and turn in old + revised paper, all in a large brown envelope. Correct all problems noted on old P1. In your new paper, be sure to fix all the problems, noted by prof, on your old paper. You will lose many points for any problems that are noted on old papers, but not fixed on new papers. If it is impossible to fix some problem, noted by prof, give her a note that explains, in detail, why it is impossible. Staple old, marked-up (by Prof) P1, along with new P1, including references. Always check the grammar paper, given by prof, before you turn in your paper. Have a smart person read your paper, ahead of time, to look for logical/conceptual/grammar problems. Turn in concise, persuasive, one-page letter to the most relevant victims, US Representatives, Senators, federal agency, NGOs, Congressional committee (5 letters minimum), etc. that summarizes-defends your position. (Be sure to have personal names for each address.) Have this one-page letter use parenthetical references to about 5 pages of attachments and appendices that contain several specific, longer arguments and references. That one page should be especially convincing and flawlessly clear. It is the cover letter, and appendices and references are attached to it. Use recent government documents and scientific journals to back up your claims. At least 48 hours before beginning of class (at which paper is due) authors of P2 papers should email prof/reviewers copies. Before 8 am on Monday before, authors should put hard copy in professor's box (211 Malloy). Sample P2 papers, from earlier students, are under "Class Materials" on professor's website. Students who forget extra copies, for prof. or for class, lose 5 points.

Format for Project Paper P3: This is merely a xeroxed copy of the letter and attachments, after original P2 has been corrected on the basis of professor's markings. Use the 5 criteria, and staple old P2, with professor's comments, to xerox copy of new P3, plus xeroxes of addressed envelopes, all in a large brown envelope. Always check the grammar paper, given by professor, before you turn in your paper. P3 = proof of the quality of the paper/arguments/letter you mail out. At least 48 hours before beginning of class (at which paper is due) authors of P3 papers should email prof/reviewers copies. Before 8 am on Monday before, authors should put hard copy in professor's box (211 Malloy). Students who forget extra copies, for prof. or for class, lose 5 points. In your new paper, be sure to fix all the problems, noted by the professor, on your old paper. You will lose many additional points for any problems that are noted on old papers, but not fixed on new papers. If it is impossible to fix some problem, noted by the professor, give her a note that explains, in detail, why it is impossible. Have a very smart person read your paper, ahead of time, to look for logical, conceptual, and grammar problems.

About the Professor: Kristin Shrader-Frechette has degrees in mathematics and in philosophy of science and has done 3 post-docs: one in hydrogeology, one in economics, and one in population biology/community ecology. Author of 400 professional papers and 17 books, her work has been translated into 17 languages and has appeared in science journals such as Science, BioScience, Health Physics and Quarterly Review of Biology, as well as in philosophy journals such as Ethics, Philosophy of Science, and Journal of Philosophy. Her latest books are Taking Action, Saving Lives, and What Will Work: Preventing Climate Change with Renewable Energy and Tainted (about how polluters misrepresent science to continue polluting). Shrader-Frechette has done environmental-justice (EJ) work in the Americas, Europe, Africa, the Arctic, and throughout the US – and is the leading philosopher in the world on EJ issues. She has addressed the national academies of science in 3 nations and advised various foreign and US governments, the UN, and the WHO on issues of quantitative risk assessment, EJ, and nuclear waste disposal. Shrader-Frechette has been a member of the US EPA Science Advisory Board and Chair of the US Bioethics Committee of the US EPA. She also has served on many committees and boards of the US National Academy of Sciences, the UN, the WHO, and the International Commission on Radiological Protection. Her research has been funded continuously by NSF for 28 years, and she is Past President of the Risk Assessment and Policy Association and the International Society for Environmental Ethics. Shrader-Frechette has won the top ethics award in the world – given by the World Technology Network – for her work on environmental justice and ethical issues in science. Her husband has a math PhD and is a software engineer. Their children recently graduated from Princeton and just finished MD/PhDs or law degrees. All are avid scuba divers, runners, and kayakers. See her website at www.nd.edu/~kshrader.
1. **What Happened to the Family Member or Friend:** My grandmother was diagnosed with Alzheimer’s disease (AD) five years ago at the age of 76. Her AD has progressed since diagnosis. She now has moderate or mid-stage AD (stage 5 out of 7).

2. **What May Have Caused What Happened:** At least six reasons suggest that my grandmother’s AD is related to occupational pesticide exposure as a florist.

   First, there is strong evidence that vascular risk factors such as heart disease, stroke, diabetes and smoking are risk factors for AD (Luchsinger et al 2005). My grandmother, however, fits none of these factors.

   Second, there is evidence that a history of dementia in siblings and/or parents is also a risk factor for AD (Brown 2005). Yet there is no family history of dementia, neurological disease or AD in my grandmother’s family.

   Third, numerous studies have found that environmental factors are also risk factors for AD (Gatz et al 2005; Brown 2005; Landrigan et al 2005). Because my grandmother is otherwise healthy and because her AD does not appear to be genetic, it follows that my grandmother might have developed AD because of environmental causes.

   Fourth, links have been established between cumulative exposures to pesticides and the development of neurological diseases, particularly Parkinson’s disease and AD (Baldi 2003).

   Fifth, in 1979, 350 million cut flowers were imported into the United States for use in florist shops. These flowers were imported with strict regulations on pests and plant diseases, but without regulations on pesticides. As a result, imported flowers often underwent heavy pesticide applications prior to shipment. Many of these pesticides were fat-soluble and could be absorbed through the skin. My grandmother, working as a florist from 1965-1982, handled many imported flowers and could have been exposed to exceptional levels of pesticides. (Morse et al 1979).

   Sixth, recently, specific pesticides (organophosphates and carbamates) have been closely linked with AD (Brown 2005). In 1979 (again when my grandmother was working as a florist) ten florists were found to have organophosphate poisoning due to occupational exposure to organophosphate pesticides (Morse et al 1979). This suggests that many florists at that time, including my grandmother, were not only exposed to pesticides but to organophosphates in particular. As a florist for seventeen years, my grandmother was likely exposed to cumulative levels of organophosphates that could have reasonably contributed to her AD.

3. **Bibliography**


“MIT’s Mark Dowie has charged that New York Times Science writer, Gina Kolata, has a pro-corporate / anti-public health bias, as revealed in her stories on breast implants. Who is right?”

Thesis: In at least five New York Times articles concerning silicone breast implants, Gina Kolata either ignores or minimizes corporate misconduct or serious public-health concerns, supporting Mark Dowie’s charge that Kolata is biased.

1. Gina Kolata’s September 18, 1995 New York Times article states that silicone-breast-implant manufacturers “agreed to a class action settlement for women who had implants” because they were “faced with a growing number of lawsuits.” But Kolata did not mention that the manufacturers were losing such lawsuits because juries were finding (i) that silicone-breast implants were causing the serious illnesses and injuries alleged and (ii) that some implant manufacturers had affirmatively concealed the adverse results of animal testing (Dow Chemical Co. v. Mahlum).

2. Gina Kolata’s September 18, 1995 New York Times article states that “recent studies have found no link between the implants and serious diseases . . . and many doctors believe they are safe.” But Kolata did not mention numerous authorities and studies finding (i) that silicone is toxic in both animals and man (Busch 1994); (ii) that women with silicone- breast implants are at higher risk of developing cancer from killer-cell suppression (Campbell 1994); and (iii) that autoantibodies linked to autoimmune symptoms were found in 5%-30% of women with silicone-breast implants (Bridges 1993).

3. Gina Kolata’s October 11, 2003 New York Times article states that implant manufacturers were “forced” to compensate women “who the implant makers argued were never sickened by the devices in the first place.” But Kolata does not mention the hundreds of women with breast implants who reported symptoms of chronic fatigue (77%), cognitive dysfunction (65%), severe joint pain (56%), dry mouth (53%), dry eye (50%), hair loss (40%), and difficulty in swallowing (35%) post-implant surgery (Solomon G 1994).

4. Gina Kolata’s October 19, 2003 New York Times article states that “most of the [F.D.A. Advisory Panel’s] scientists agree that implants have not been linked to a risk of systemic diseases like cancer, lupus or chronic fatigue, or neurological problems.” But Kolata does not cite the many studies showing that silicone-associated symptoms go away when the silicone implants are removed (Robinson 1995 and Cuellar 1995).

5. Gina Kolata’s January 9, 2004 New York Times article says an Institute of Medicine report found “no conclusive evidence linking the implants to serious diseases,” but Kolata mentions neither many other reports to the contrary, nor the Institute’s finding of “relatively high frequency of local complications that are unique to women with silicone implants” (IOM 1999).

Bibliography


Dow Chemical Co. v. Mahlum, 114 Nevada Advance Opinion No. 155.


[This paper should have cited the Dowie and Kolata sources.]

1. “Ionizing radiation....may or may not be bad in small doses—no one knows” (Lewis, ch. 15, p. 218).

Lewis’ claim is incomplete because he admits, on p. 222, that the National Research Council (National Academy of Sciences) says that the probability of radiation-induced cancer is a function of the amount of radiation received.

Lewis’ incompleteness is damaging to his argument because the incompleteness suggests he may be biased in underestimating the dangers associated with radiation.

Alternative to two previous sentences:

Lewis’ claim could lead to the consequence that people were careless about unnecessary radiation risk because he says “no one knows” if small doses are dangerous.

This consequence is damaging to Lewis’ argument because people ought not ignore even potential risks if they are easily avoidable, e.g., by wearing a lead apron for x-rays.

2. Medical x-rays are examples of voluntary exposure to radiation” (Lewis, ch. 15, p. 219).

Lewis assumes that when people receive x-rays, their exposure to radiation is voluntary.

This assumption is doubtful because doctors, insurers, or employers often require people to receive x-rays, and patients often do not understand the risks involved and hence cannot consent to them.

3. “Nuclear waste must be disposed of carefully” (Lewis, ch. 15, p. 220).

Lewis’ claim above is inconsistent because he also claims (on pp. 245-246) that “high-level waste....risk....turns out to be ridiculously low....High-level nuclear waste disposal is a non-risk.”

Lewis’ inconsistency is damaging to his argument because one need not be “careful” about a risk that is “ridiculously low” or a “non-risk”-- emotive language that suggests Lewis’ bias.

4. “The vast majority of all these radiation sources deliver[s] extremely small doses, with minimal if any heal the effects, even though fear of even trivial doses of radiation is common” (Lewis, ch. 15, p. 220).

Lewis assumes that it is not reasonable to fear trivial doses of radiation.

This assumption is doubtful because Lewis admits ionizing radiation “may be bad in small doses—no one knows” (Lewis, ch. 15, p. 218), and it is reasonable to fear small/unneeded doses of things with cumulative effects.

5. “The maximum permitted exposure for workers in nuclear facilities is 5,000 mr per year, and for the general public 500. We don't know if this much radiation does any harm at all” (Lewis, ch. 15, p. 220).

Lewis’ claim is incoherent because (1) the referent of “this much radiation” could be 5,000 or 500 mr and (2) he says (p. 222) “the most authoritative estimates” of radiation risk show that the risk is a function of dose.

Lewis’ incoherence is damaging to his argument both because (1) his language makes his argument unclear and (2) he appears to be biased in underestimating radiation risks.
Thesis: Chapter 9 of How Are We to Live? discusses the nature of ethics, dismisses several theories of ethics, and supports some ethical principles that (Singer says) lead to universal concern for others. There are at least 5 reasons to suggest Singer’s positive account lacks sufficient evidence and that his dismissal of other theories is unwarranted.

1. Singer discusses the possibility that ethics is gendered and hypothesizes that “the predominance of women in environmental and animal movements therefore suggests a greater readiness to work for larger goals and not just to help oneself or one’s own kind” (179) because they have adopted more of an ethics of universal concern, or “care-ethic.” However, one study suggests the care-ethic was not significantly higher in female participants who volunteered than in those who did not (Karniol et al 2003). Partly because Singer may erroneously identify behavior and concern, he insufficiently documents the claim that the nature of ethics has a gender component.

2. Singer claims, as R.M. Hare does, that ethics must be “universalizable,” that we should be “prepared to prescribe them independently of the role that we occupy” (174), taking the needs and desires of all other beings into account. However, Olson and Svensson (2003) show Hare used the term “universalizable” in only one sense: situations with identical properties merit identical moral judgments. Singer may misinterpret Hare and thus have little Hare support that moral judgments must take into account desires and needs of other beings.

3. On page 172, Singer claims that Christianity creates overwhelming guilt and causes the abandonment of ethics in some people because of unnecessary tension between self-interest and ethics when Christians emphasize “the denial of harmless bodily pleasures, especially sexual pleasures.” Yet the philosopher, St. Augustine, argues in his Confessions that sexual pleasures can often be harmful, in that they “overcast [one’s] heart so that [one] is unable to discern pure affection from unholy desires” (Second Book, ch.2). Singer does not address the possibility that moral rules of sexual purity protect people from some harm, such as blinding one’s reason, and he may therefore be unwarranted in dismissing the Christian emphasis on moral rules concerning sexuality.

4. Singer claims the Buddhist tradition is “a failure in social terms” (190) because in Japan, the ‘first precept’ of Buddhism is not upheld: sentient beings are used as food. However, when Singer judges Buddhism, he is assessing Japanese adherence to Theravada Buddhism, though the Buddhism that was introduced into Japan was a less-strict, less-purification-oriented Mahayana Buddhism (Burtt 1982). In applying the standards of one form of Buddhism to another, Singer may unfairly reject Buddhist ethics.

5. Singer refutes the Kantian concept of morality by showing that horrific Nazi acts (e.g. acts of Adolph Eichmann) were merely a consequence of blindly adhering to duties for their own sake (184). However, Claudia Koonz studied the Nazi motivation for genocide and concluded in her book, The Nazi Conscience, that the Holocaust was a result of extreme racism that developed into violence, as German society saw the ethnic majority as morally righteous and denounced corrupting outsiders (Koonz 2005). Given other explanations for the Holocaust, it may be unfair for Singer to dismiss Kantian duty, based on Eichmann’s claim of duty.


Thesis: The US should not allow proposed, more lenient workplace-pollution (than public) standards, because often workers
(1) are not informed about risks; (2) impose risks on the innocent, e.g., future people (3) get no compensating wage differential
(CWD); (4) have faulty risk preferences; and (5) should not trade health for money.

Argument 1: The US should not allow more lenient workplace standards, (1) because workers often are not fully informed
about higher risks, and industry often covers up the risks (GAO 1999).

Objection 1: Argument 1 is questionable because unions and government regulators can inform workers of the risks, as
Congress recently did, in the case of nuclear workers (Congress 1999).

Response 1: Objection 1 is questionable because US union membership is only 14-16 percent (Miller 1999, pp. 57-59), and
government often fails in its regulatory capacity (GAO 1999).

A2: The US should not allow more lenient workplace standards, (2) because often worker mutagenic risk is imposed on
innocent people, such as future generations (Shrader-Frechette 2002, ch. 5).

O2: A2 is questionable because someone needs to do the risky work, or else the economy would suffer (Dorman 1996, pp.
26-28).

R2: O2 is questionable because human rights take precedence to economics, and because European nations also do risky
work, but with very stringent workplace standards (Newton 1996, pp. 135-149).

A3: The US should not allow more lenient workplace standards, (3) because often there is no CWD for workers in

O3: A3 is questionable because many economists say there is a compensating wage differential, although it varies from
occupation to occupation (Viscusi et al. 2000).

R3: O3 is questionable because although there is an average CWD, disaggregating CWD data shows it exists only for
unionized, college-educated, or male workers (Shrader-Frechette 2002, Ch. 7).

A4: The US should not allow more lenient workplace standards, (4) because workers often have faulty or irrational
preferences for riskier work (Broome 1999, pp. 192-198).

O4: A4 is questionable because workers have the right to determine what jobs they want, and the market promotes efficient
job-risk matchups (Viscusi et al. 2000, pp. 768-769).

R4: O4 is questionable because workers often are forced into jobs, not because of real preferences but because of economic
hardship and low skill levels (Levenstein and Wooding 1997).

A5: The US should not allow more lenient workplace standards, (5) because workers ought not be able to trade health for
money, since only vulnerable people tend to do so (Leigh 1995, pp. 3-7, 215).

O5: A5 is questionable because such trades promote worker freedom (Viscusi et al. 2000, p. 766).

R5: O5 is questionable because even the courts recognize that paternalism and worker protection sometimes ought to take
precedence over complete worker autonomy (Sellars 1997, p. 47).
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<tr>
<th>Date</th>
<th>Section of Course</th>
<th>Lecture</th>
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<tr>
<td>Tuesday 8-22-17</td>
<td>What Are EJP?</td>
<td>(1) Course Overview; EJ Overview (2) Tools of Analysis: Fallacies &amp; 5 Criteria (3) Suggestions for Paper L, P1</td>
<td>(1) Read ch. 1 EJ; get NYT subscription. (2) Work on Paper L, the first version of your main project paper; eg: DOE 2016 on Yucca (9 slides) (3) By noon Friday, put priority list of 3 E (Singer) topics in prof's box, 211 Malloy; choose S topic ASAP. (4) get name/email address of person on your right/left</td>
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<td>8-29-17</td>
<td>Pro/Con:</td>
<td>(1) Analysis of Bullard, Friedman (2) Scientific Tools of Analysis (3) Go over some L papers (4) Go over all early P1 papers; Early P1 authors should be ready to present papers.</td>
<td>(1) Turn in paper L for entire class; begin presenting L papers. Also give professor a hard copy (in her box, 211 Malloy, as explained earlier) and an email copy—both at least 48 hours before class begins. Bring copies to class for all students. (2) Read-analyze ch. 1, TASL + Bullard &amp; Friedman on website; (3) Tell prof if you will do early P1 paper, at next class, &amp; she’ll go over your L paper first at today’s class.</td>
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<tr>
<td>9-5-17</td>
<td>Why People Do Not See EJ Problems</td>
<td>(1) Manipulating Govt., Media, Science (2) Scientific Tools of Analysis (3) Go over some L papers (4) Go over all early P1 papers; Early P1 authors should be ready to present papers.</td>
<td>(1) Read/analyze S-F, TASL, chs. 2-3 (2) For 5 extra points, turn in “early” P1 paper by 6 pm on day before class. Tell prof so she is ready to correct your L early. Give professor 2 hard copies (in box, 211 Malloy) and e-mail copy to her and 2 reviewers—both received no later than 6 pm on day before class. Bring copies of paper to class for all students. Early P1 authors present</td>
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<tr>
<td>Sun 9-10-17</td>
<td>TIME TBD</td>
<td>GO OVER all L + early P1 PAPERS; CLASS VOTE WHEN TO MEET</td>
<td>GOAL IS LUNCH-TIME RESERVATION MAKE-UP CLASS, WITH FOOD; COUNTS FOR 1/2 MISSED CLASS WHEN PROF MUST LECTURE IN CALIF. IN OCT</td>
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<td>Tuesday 9-12-17</td>
<td>&quot;</td>
<td>(1) Flawed Property Rights: Appalachia (2) Do analysis of all P1 papers</td>
<td>(1) Regular paper P1 due at regular time, WITH COPIES FOR ENTIRE CLASS, but email copy to reviewers &amp; prof 48 hours before class begins. Give prof a hard copy (in 211 Malloy box, as explained earlier) &amp; email copy to 2 reviewers &amp; prof—at least 48 hours before class begins. Bring copies to class for all. (2) Read EJ, ch. 3. (3) P1 and R authors, be ready to present to class.</td>
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<td>Fri 9-15-17</td>
<td>Lecture, Ian Zabarte, Head Man [chief], Western Shoshone, “Native Americans &amp; EJ.” (MAKE-UP LECTURE THUR 9-14-17, some 2 hrs, 3:30-9:30PM, depending on room options)</td>
<td>NO ASSIGNMENT. LECTURE MAKES UP FOR SEPT CLASS WHEN PROF MUST LECTURE IN POLAND AND GERMANY. ....class vote on lecture time.</td>
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<td>Sun 9-17-17</td>
<td>MAKE-UP ½ CLASS MISSED NEXT WEEK.</td>
<td>FINISH GOING OVER P1 PAPERS, PROF CAN PROVIDE SUPPER. Class vote on when to have class.</td>
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<td>9-19-17</td>
<td>&quot;</td>
<td>(1) Ignoring Consent: Louisiana (2) Ignoring Vulnerability, Native People (1) Read chs. 4, 6, EJ. Turn in early revised papers P1, R, at least 48 hrs before class, to get 5 extra points. (2) Analyze revised P1 papers and R papers presented at class. Bring copies of paper to class for all students.</td>
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<td>9-26-17</td>
<td>NO CLASS</td>
<td>WE MADE UP CLASS ON 9-15-17. WORK TO CORRECT P1 PAPERS, DO P2 PAPERS. PROF MUST LECTURE IN POLAND &amp; GERMANY.</td>
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<tr>
<td>10-3-17</td>
<td>Why People Do Not See EJP</td>
<td>(1) Ignoring Equity: Yucca Mountain (2) Ignoring Compensation: Workers (3) LAST DAY TO CONSULT WITH PROF ON EX CREDIT PAPER. (1) Read chs. 5, 7 EJ; Turn revised, in corrected P1. That is, turn in marked-up, original P1, plus corrected P1, both in large brown envelope, &amp; give prof both hard copies, early, per previous instructions (in 211 Malloy box), and an email copy—at least 48 hours before class begins. Bring copies of paper to class for all students. (2) Do analysis of revised P1 papers, and R papers, that are presented at class.</td>
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<tr>
<td>10-3-17</td>
<td>Make-up for ½ of missed class</td>
<td>Treat class to supper ---go over remaining corrected P1 papers.</td>
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<td>10-10-17</td>
<td>NO CLASS: PROF LECTURE IN CA.</td>
<td>WE MADE UP CLASS ON 9-10-17 AND 9-17-17. WORK ON P2. WATCH “TRADE SECRETS” &amp; FILL OUT QUESTIONNAIRE ON PROF WEBSITE</td>
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<td>10-17-17</td>
<td>FALL BREAK</td>
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<td>10-24-17</td>
<td>Ethical Solutions</td>
<td>(1) Guaranteeing Human Rights (1) Read S-F, TA, ch. 4; EJ, ch. 2. (2) Turn in “Trade Secrets” video sheet at class. (3) By 8 am on 10-23-15, by email and in box, turn in original, marked-up P1, plus P2 (2 COPIES) for prof, all in large brown envelope, plus revised P1 copies for entire class and prof, and send P2 to 2 reviewers. At class, reviewers turn in R papers.</td>
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<td>10-29 (Sun)</td>
<td>SUPPER CLASS TO FINISH P2 PAPERS</td>
<td>CLASS MAKES UP FOR ½ OF LAST CLASS, WHEN PROF MUST LECTURE OUT OF TOWN.</td>
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<td>10-27-17</td>
<td>LAST DAY TO DROP CLASS</td>
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<td>10-31-17</td>
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<td>(1) Stopping Warming; Correcting WTO (1) Read Singer, chs. 1-3: do not critique Singer out of context; make sure you know other arguments of his in book. Turn in all Singer (E and R) papers for all topics, for all future dates below; send to reviewers/prof 48 hours earlier. Give prof these hard copies (in box, 211 Malloy, as explained earlier) &amp; email copy. Bring paper copies for all class members. (2) Pro Singer 1____________________  Con Singer 1________________________ (3) Pro Singer 2____________________  Con Singer 2________________________</td>
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| 11-7-17    | **Ethical Solutions**  
1. Using Law; Global Duties  
2. Read Singer, chs. 4-5.  
3. Be ready to present Singer and R papers. Have E & R and extra credit copies for entire class.  
4. ALL EX CREDIT DUE (2 HARD COPIES IN 211 BOX, as explained earlier, AND EMAIL PROF COPY) 48 HRS BEFORE CLASS BEGINS. |
| Con Singer 3 |                                                                                                      |
| 11-14-17   | **Pro Singer 4**  
1. Taking Personal Action  
2. Power point presentation, first part of P2-P3 papers  
4. Turn in P2 + P3 + power point early to get 5 extra points. Turn in all original, marked-up P2, plus P3 papers. Give professor these hard copies (in her box, 211 Malloy, before 8 am 11-13-17). Be ready to present P3. Have copies with you of revised P1 and R. Bring paper copies for all class members. |
| Con Singer 4 |                                                                                                      |
| 11-21-17   | **Pro Singer 5**  
1. Power point presentation of P2-P3 papers, second part  
2. Email prof power point and turn in all required revisions of P3 and all earlier P papers, in brown envelope at 211 Malloy box, before 8 am 11-20-17 |
| Con Singer 5 |                                                                                                      |
| 11-28-17   | **Pro Singer 5**  
1. Power point presentation of P2-P3 papers, third part  
2. Be ready to give power point presentation. |
| Con Singer 5 |                                                                                                      |
| 12-5-17    | **NO CLASS; PROF MUST LECTURE IN CA.**  
1. We made up class on 10-3-17 & 10-29-17 |