Environmental Justice
Fall 2007
BIOS 50544 / PHIL 43308 (ALSO STV 43396 & IIPPS 50901)

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Office hours: T 3-3:20, W 3-4:15; other times are by appointment, per sign-up sheet on office door.

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Course goals:
- to understand problems of environmental injustice (EIJ) throughout the world
- to understand how discriminators use poor science/ethics/logic against minorities and the poor
- to understand the many conflicts of interest that face scientists doing environmental research
- to teach people to avoid suspect inferences, default rules, and subjectivity in science/ethics
- to use classical ethical techniques for resolving ethical dilemmas of EIJ
- to 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; Thurs. paper
Solution: read web materials and ms.
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 content of prior lectures. For government-research, scientific-journal, journal-database questions for your paper assignments, see professional ND (research or government-document) librarians.

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 phone Dr. S-F at 1-2647 to let her know when you are available at 8 am (give 3 options) Tuesday-Wednesday-Thursday. Dr. Shrader-Frechette receives about 100 emails daily, many handled by her assistant. Unfortunately, this high email-volume means she cannot answer student emails. She wants to see everyone, so please do not hesitate to see her or to call. For emergency/sickness contact, use her phone at 1-2647. 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 somewhere). Typically, she cannot quickly see those who do not make appointments in advance.
**Course Format:** The course will be an interactive seminar consisting of 60-minute interactive lectures by professor, followed by about 90 minutes of interaction/presentation guided by professor. Remember that weekly assignments are like those for 3 class days -- and you need to balance your time, so work does not pile up.

**Deadlines:**
- Project Outline P1: at beginning of class, 9-26-07
- Project Paper P2: at beginning of class, 11-14-07

**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 (e.g., from refereed journals). Although professor is one of the top scholars in the field covered by the course, do not cite her work in these papers. Also, use neither mere website material, nor popular sources, nor sources likely to have some bias (e.g., from industry or citizen-advocacy groups). You may use government documents. Do not use any newspaper sources unless they are absolutely necessary, given the type of paper you are writing. Other assignments and requirements are listed below:

1. 2 one-page assigned papers: 1 local (L), 1 ethics (E); copies for class
2. 6 one-page review papers (R), of E, P1, P2 papers of person on your right and left
3. a two-page project outline P1 (copies for class), and longer project paper/letter P2, including power-point presentation of P2 for class
4. in-class analysis/attendance at every class (C)
5. quizzes (Q) on reading for the week; watching 2 videos (V) and turning in video sheets for "Trade Secrets" and "A Plague on our Children"
6. *NY Times* summaries (S) on weekly EJ problems; turn it in at beginning of class; *NYT* articles must be from previous week.

**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) + (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.

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 a science-, ethics-, or environment-related project (for papers L, P1, and P2) 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.
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 $29.95; available from Dr. S-F (at cost) at about $19; and on her website under “Book Manuscript” (use case-sensitive password 1Kristin to get book); 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. Select new topic, in connection with professor, before fall break. Papers are due at first class after Thanksgiving. In grading, paper will receive same weight as E paper.

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


2. One-page NYT summaries should have 3 paragraphs. First paragraph should be the longest and should summarize the main points of the article. Second paragraph should explain why the issue covered is an EJ problem. Third paragraph should summarize what you can do to help alleviate this public-health 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 and P2; (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/causes/issues 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 who the vulnerable EJ group is at risk, e.g., Latinos; what are the risks they face, and why 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 3 relevant references. References should be from recent, first-rate ethical and scientific journals/books (or recognized government sources, and recognized medical authorities if no journal data are available). Use no mere web data, and put references in standard format, as in model-paper. 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. 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. Turn in 2 copies for professor and 1 copy for each class member.

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.

(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 largely ethical, rather than purely scientific-logical. To help you 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 most like, pro or con (8 options; see p. 13). Before Friday noon of this week, 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 instead would like, propose it to professor at the same time, plus the 3.)

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 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. 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.

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

6 one-page review papers (R), of E, P1, P2 papers of persons on your immediate right and left, are due at class on same day as the person’s papers are due. Bring copy for professor and for person being evaluated. Each of these 3 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 convincing because she uses 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.” Mention specific arguments and claims of author, and make no general statements about the paper. People whose papers are being evaluated should send both the professor and their final evaluators an email copy of their papers no later than 48 hours prior to class beginning. 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 will lose 20 points. 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.”
Format for Project Paper P1: See earlier comments on local EJ paper; this P1 paper follows on that one. Make 2 copies for professor + copies for all members of class; 2 pages max. (use 1 pg. front and back). 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.

[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 EIJ 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 EIJ 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).

Format for Project Paper P2: Redo paper P1 and turn it in after correcting all problems noted on old P1. Staple old, marked-up (by Professor) P1, along with new P1, including references. Turn in concise, persuasive, one-page letter to the most relevant victims, US Representations, Senators, federal agency, Congressional committee (5 letters minimum), etc. that summarizes-defends your position. 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. Sample P2 papers, from earlier students, are under “Class Materials” on professor's website.

About the Professor: Kristin Shrader-Frechette has degrees in mathematics and in philosophy and has done 3 post-docs, one in hydrogeology, one in economics, and one in population biology/community ecology. Author of 350 professional papers and 14 books, her work has been translated into 13 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 book is Taking Action, Saving Lives. Shrader-Frechette has done environmental-justice (EJ) work in the Americas, Europe, Africa, 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 is 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 since 1982, 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 Ph.D. and is a software engineer. Their children have just graduated from Princeton. 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


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 makers 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.


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.
Q1: "Locke says the eternal law of nature, directed at human preservation, limits property rights...so that all people in all generations have...access to land, genes, and the benefits...." (TA, 3-11).

C1: Societal consistency also supports Q1 because the strongest property rights, to one’s person, are restricted for the sake of community welfare, as Locke and S-F say, as when society incarcerates dangerous people.

A1: C1 promotes Q1 because, although societal opinions never establish ethical conclusions, well-substantiated societal opinions help establish them, precisely because they are supported by reasonable people.

Q2: “‘The law of nature...willeth the peace and preservation of all mankind’...This law governs, for example, the distribution of common properties” (TA, 3-9).

C2: Locke’s/S-F’s Q2 assumption, of natural law, is correct because, as Aquinas says, if humans have a given nature, behavior following these natural “laws” is necessary to help humans be fulfilled, happy, and good.

A2: These additional grounds for the assumption support the S-F argument because all those, who claim religious grounds for supporting natural law, defined by Aquinas, have new reasons to support S-F’s account of Locke.

Q3: “Through implicit consent to the use of money, Locke said people ‘have agreed to disproportionate and unequal Possession of the Earth’” (TA, 3-6).

C3: S-F’s arguments for equal opportunity in property and against Q3 have coherence with past history because early people may have consented to money as a convenience, but not to any particular distribution of goods.

A3: C3 supports S-F because it suggests alleged original grounds for assenting to unequal opportunity may not have existed, and Locke needs new arguments that people really consented to unequal opportunities.

Q4: “Human labor cannot merit full property rights to resources like land or genes” (TA, 3-11).

C4: One desirable consequence of supporting Q4, is that the “burden of proof” is on polluters and developers, to show their actions really lead to greater opportunity for all, present and future.

A4: Consequence C4 supports Q4, the S-F view of Locke, because all ethical and political theorists will have to rethink how society fails to live up to Lockean standards they claim to accept.

Q5: “Locke erroneously believed...land on which humans had not labored was of little value” (TA, 3-11).

C6: Because S-F’s Q5 suggests why Locke erred in thinking land had little value, she gives a more complete account of why (1) Locke’s factual errors do not harm his theory and (2) why changed factual conditions (expanding population and limited land) call for a reinterpretation of Locke.

A6: The completeness, noted in C6, supports S-F’s argument because it shows how and why people are misled when they fail to read Locke in the historical and cultural context in which he wrote.
Q1: “Locke’s writings...provide grounds for restricting property rights...[because] ‘as much and as good’ must remain for others...In a world of expanding population, absolute property rights in land or genes would preclude...equal opportunity” (TA, 3-6, 3-11).

C1: Q1 makes the **assumption** that, because there is never “as much and as good” natural resources, like land, in a finite world, people cannot appropriate natural resources, as wholly private property.

A1: Because assumption C1 is questionable whenever people (even future generations) are adequately compensated for losing their “share” of resources, Q1 should allow property in resources, if there is full compensation.

Q2: “Locke’s law of nature and the first proviso require limiting property rights so that all people in all generations have equal opportunity, ‘as much and as good’ access to land” (TA, 3-11).

C2: Q2 is **incomplete** in limiting property in resources because it also must show that, without full property rights, there would be economic incentives for developers to use existing resources to benefit all.

A2: This incompleteness in damaging to Q2 because S-F must show, not merely that consistent Lockeans reject full private property in natural resources, but that her interpretation of Locke is practical and workable.

Q3. “Locke says the root of all evil is humans desires for more than they need....Locke appears to have personal, as well as political, grounds for limiting claims to property rights.” (TA, 3-8).

C3: It is **incoherent** to argue both Q3 and that, because humans need no full property rights to resources, such full rights are the source of evil, because desiring (not only having) what is not needed is the root of evil.

A3: C3 requires Q3 to be modified because, so long as other conditions (e.g., all people have what is necessary for their preservation) are met, having more than what one needs may not cause evil.

Q4: “Locke says the root of all evil is human's desires for more than they need....He says children should be taught from an early age...to avoid acquisition” (TA, 3-8).

C4: It seems **inconsistent** for S-F to approvingly quote Locke in Q4 because he seems to reject acquisition in general, not merely desires to acquire more than is needed (TA, 3-8).

A4: This apparent inconsistency in Q4-C4 is damaging to Locke/S-F unless they explain that, while desire for excess is the root of evil, yet one can train children to avoid such desires by restricting their acquisition.

Q5: “Locke claims that if labor did not generate property rights, people would starve while waiting to work out property agreements” (TA, 3-7).

C5: One **consequence**, of accepting Q5 and its labor theory is that one has no full property rights to things to which others contributed labor, yet we recognize full property right over some things, e.g., books we write.

A5: Consequence C5 is damaging to S-F because it accepts the labor theory of value, yet obviously people accept full private-property rights to things for which their labor, alone, did not create the value.
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 environmentally risky occupations (Leigh 1995, pp. 3-7, 215).

**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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<td>What Are EJP?</td>
<td>(1) Overview of Course (2) EJ. ch. 1: Overview of EJ Problems (3) Suggestions for Paper L, P1</td>
<td>(1) Get NYT subs.; watch video early; read ch. 1 EJ (2) See student work, p. 6 above re EJ ubiquity (3) By noon Friday, put priority list of 3 E (Singer) topics in prof's box, 211 Malloy</td>
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<td>9-5</td>
<td>“</td>
<td>(1) Lives at Risk from Envir. Toxins (2) Tools of Analysis: Fallacies &amp; 5 Criteria</td>
<td>(1) Read ch. 1, S-F, TASL (2) Watch “Trade Secrets” video early; work on Paper L</td>
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<td>9-12</td>
<td>“</td>
<td>(1) Analysis of Bullard (2) Analysis of Friedman (3) Evaluate L papers</td>
<td>(1) Read-analyze Bullard &amp; Friedman on website; turn in paper L for entire class (2) First half of class do paper L</td>
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<td>9-19</td>
<td>Why People Do Not See EJP</td>
<td>(1) Manipulating Govt., Media, Science (2) Tools of Analysis (3) Second half of class do paper L</td>
<td>(1) Read S-F, TASL, chs. 2-3; for 5 extra points, turn in “early” P1 for entire class; turn in early R papers. (2) See “Trade Secrets” video; turn in video sheet (3) See student work, p. 7 above, for media “spin”</td>
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<td>9-26</td>
<td>“</td>
<td>(1) Flawed Property Rights: Appalachia (2) Do analysis of early P1 papers (sent to class via email by previous class.)</td>
<td>(1) Turn in regular paper P1 with copies for entire class, but give to reviewers 48 hours earlier. (2) Read EJ, ch. 3; turn in R papers. (3) Analysis of early P1 papers (emailed 2 days before previous class to R people and 2 copies put in prof's box at door) – 2 days earlier.</td>
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<td>10-3</td>
<td>“</td>
<td>(1) Ignoring Consent: Louisiana (2) Ignoring Vulnerability, Native People</td>
<td>(1) Read chs. 4, 6, EJ (2) Analyze P1 papers and R papers at class</td>
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<td>10-10</td>
<td>“</td>
<td>(1) Ignoring Equity: Yucca Mountain (2) Ignoring Compensation: Workers</td>
<td>(1) Read chs. 5, 7 EJ (2) Do analysis of P1 papers and R papers</td>
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<td>10-17</td>
<td>“</td>
<td>Instead of this class, attending two talks and turning in summary, at next class after each talk, makes up for this class.</td>
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<td>3-24</td>
<td>FALL BREAK</td>
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10-31  Ethical Solutions  (1) Guaranteeing Human Rights  (1) Read S-F, TA, ch. 4; EJ, ch. 2
(2) Questions on P2 papers; video?  (2) Work on P2 papers
(3) Watch video early (due 11-28)

11-7  Ethical Solutions  (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; turn in all Singer – E papers and R papers for topics below; send to reviewers 48 hours earlier.

(2) Pro Singer 1____________________  Con Singer 1____________________
(3) Pro Singer 2____________________  Con Singer 2____________________
(4) Pro Singer 3____________________  Con Singer 3____________________

11-14  "  (1) Using Law; Global Duties  (1) Read Singer, chs. 4-5
(2) Pro Singer 4____________________  (2) Turn in P2 for professor, plus revised P1 copies for entire class, and R papers; send P2 to reviewers 48 hours ahead, and be ready to give power-point presentation on P2.

Con Singer 4____________________

(3) Pro Singer 5____________________  Con Singer 5____________________

11-21  DAY BEFORE THANKSGIVING; NO CLASS, 2 VIDEOS MAKE UP FOR CLASS. SEE VIDEO, "A PLAGUE ON OUR CHILDREN".

11-28  "  (1) Taking Personal Action  (1) Read EJ, chs. 8-9
(2) Presentation, First Part of P2 papers  (2) Turn in Video Sheet

12-5  "  Presentation of P2 Papers