

Topics in Bioethics: Environment & Health Policy

179-549-01; Spring, 1991

W 1:15-2:55

Instructor: Madison Powers
Georgetown Philosophy Dept.
Kennedy Institute of Ethics

Office: 219 Poulton Hall
Hours: Wed 3-5 & by appt
Tel: (202) 687-6821

Course requirements include short papers at mid-term and end of course (or optional single paper for graduate students).

Texts:

Packet of materials from Kinkos (marked with *)
Portney, Public Policies for Environmental Protection (PPEP)
Shrader-Frechette, Risk Analysis & Scientific Method (RASM)

I. Science, Technology & Risk

1. Technology Assessment & Environmental Impact Analysis: Ethical & Methodological Assumptions
2. Risk Identification & Analysis - Ethical & Methodological Issues in the Scientific Process
3. Revisionism and Conservatism in Risk Assessment
4. Perceptions of Risk: Probability, Magnitude & Time

II. Conflicts of Values in Environmental Ethics:

5. Balancing the Value of One Life Against Another
6. Balancing Health Against Other Goods
7. Balancing Human Goods Against Intrinsic Ecological Values

III. Decision-making & Social Responsibility

9. Decisions Under Ignorance - Moral Responsibility for Fooling With Mother Nature
10. Environmental Goods as Public Goods - Decisions Affecting the Collectivity
11. The Limits of Political Solutions: Paradoxes of Democratic Decision-Making

IV. Distributive Justice - Duties to Sacrifice for the Benefit of Others

12. Limited World Resources & Unlimited Population
13. Duties to Future Generations

I. Science, Technology & Risk

1) Technology Assessment & Environmental Impact Analysis: Environmental Policy - Ethical & Methodological Assumptions

- a. history of environmental regulatory policy in the USA
- b. public policy analysis techniques in federal regulation
- c. theoretical rationale for formal analysis techniques
- d. Kantian & Utilitarian views of formal policy analysis

Portney, "EPA and the Evolution of Federal Regulation", in PPeM, 7-25.

*Shrader-Frechette, "An Overview of Technology Assessment and Environmental Impact Analysis", and "Assessing Risk -Cost Benefit Analysis", in her Science Policy, Ethics, and Economic Methodology, 3-64.

*MacIntyre, "Utilitarianism and Cost-Benefit Analysis", in D.Scherer & T. Attig, eds., Ethics & the Environment, 139-51.

*Gewirth, "Human Rights & The Prevention of Cancer", in Scherer & Attig, eds, op. cit., 170-77.

2) Risk Identification & Analysis: Methodological Issues & Ethical Issues in the Scientific Process

- a. Deciding what questions to ask and how to answer them
- b. varieties of adverse health effects: carcinogenicity; reproductive and developmental toxicity; neurotoxicity
- c. Duties of scientists: to professional peers or to general public? Duty to disclose all findings? How should they resolve conflicts of duties?
- d. Policy study: Toxic Substances Policy
- e. Case Study: ALAR

Shrader-Frechette, "Risk Assessment", ch. 2, RESM, 15-51.

Shapiro, "Toxic Substances Policy", in PPeP, 195-241.

*Cranor, "Some Moral Issues in Risk Assessment", Ethics 101 (Oct, 1990), 123-43.

handout on ALAR

3) Revisionism and Conservatism in Risk Assessment

- a. have scientists been too risk-averse?
- b. do new investigational techniques permit more reliable scientific estimates of risk?
- c. the weight-of-evidence approach vs. pooling of data
- d. can science really reduce uncertainty?

*Paustenbach, "Health Risk Assessments: Opportunities & Pitfalls", Colum. Envir. Law Review, (1990): 379-410.

*Anderson, "Science Development in Risk Assessment: Legal Implications", Colum. Envir. Law Review, (1990):411-425.

*Cohen and Ellwein, "Cell Proliferation and Carcinogenesis", and Ames and Gold, "Too Many Rodent Carcinogens: Mitogenesis Increases Mutagenesis", Science (August,1990), 1007-11, 970-1.

*Finkel, "Is Risk Assessment Really Too Conservative?: Revising the Revisionists", Colum. Envir. Law Review, (1990): 427-67.

4) Perceptions of Risk: Probability, Magnitude & Time

- a. Production & Disposal of Hazardous Materials
- b. risk: low probability of harm of great magnitude
- c. ignoring low probabilities
- d. risks of harm in the distant future; risks of imperceptible and cumulative harms
- e. policy study: disposal of hazardous wastes
- f. case study: Nuclear Power (handout)

*Slovic, "Perceptions of Risk", Science 236 (1987): 280-5.

Shrader-Frechette, "Risk Evaluation & The Probability Threshold Position", ch. 5, RASM, pp. 125-56.

Shrader-Frechette, "The Linearity Assumption" ch. 6, RASM, pp. 157-95.

Dower, "Hazardous Wastes", in PPEP, ch. 5, pp. 151-194.

*Levi, "A Brief Surmon on Assessing Accident Risks in Commercial Nuclear Power Plants", in his The Enterprise of Knowledge, Appendix, 431-44. Optional.

II. Conflicts of Values in Environmental Ethics:

5) Balancing the Value of One Life Against Another

- a. The Public Health Model of Environmental Policy: the reduction of morbidity & mortality
- c. cost effectiveness models
- d. statistical vs. known lives
- e. outcome measures: maximum life-years saved per unit of resources; economic productivity as a factor in choosing which lives to save/extend; Quality-adjusted life-years.
- f. should the value of life remain the same in all contexts?

*Mishan, E.J., "Disease Control", Cost Benefit Analysis, 6-8.

*Schelling, T., "The Life You Save May be Your Own", in Chase, ed., Problems in Public Expenditure Analysis, 127-62.

*Emery and Schneiderman, "Cost-Effectiveness Analysis in Health Care", Hastings Center Report, vol. 19, July, 1989, pp 8-13.

Shrader-Frechette, "Commensurability Presupposition", RASM, ch. 3, pp. 55-95.

*LaPuma and Lawler, "Quality-Adjusted Life Years", JAMA 263, no 21. (June 6, 1990): 2917-2921.

6) Balancing Health Against Other Goods

- a. Cost-Benefit Models and the relation to welfare economics
- b. measuring overall social welfare
- c. Pareto optimality: the social rationale of welfare economics and cost-benefit analysis
- d. economic vs. environmental goals
- e. Policy study: Water Pollution & Ecological Absolutes

*Mishan, Cost Benefit Analysis, pp. 159-72.

Freeman, "Water Pollution Policy", PPEP, 97-149.

*Shrader-Frechette, "RCBA & the Aggregation Assumption", Science Policy, Ethics and Economic Methodology, ch. 5, 121-51.

*Baier, "Poisoning the Wells", in D. McLean, ed., Values at Risk, pp. 49-71.

*Passell, P., "Rebel Economists Add Ecological Costs to Price of Progress", The New York Times, Nov. 27, 1990.

7) Balancing Human Good Against Intrinsic Ecological Values

- a. the place of humans in nature
- b. human welfare vs. intrinsic environmental values
- c. Diversity, Intrinsic Value & Social Welfare
- d. the deep ecology movement: a new ethic of nature?

*Rolston, H., "Is there an Ecological Ethic?", Ethics, 85 (1975), 93-109.

*McCloskey, "The Preservation of Nature", in his Ecological Ethics & Politics, pp. 34-61.

*Rescher, "Why Save Endangered Species?", in his Unpopular Essays on Technological Subjects, 79-92.

*Wilson, E., "Threats to Biodiversity", Scientific American, (Sept., 1989): 108-116.

8) midterm: no class 3/13 - exam handed out 3/6; and due 3/18

III. Decision-making, Social Responsibility

9) Decisions Under Ignorance - Moral Responsibility for Fooling With Mother Nature

- a. moral responsibility for fooling with mother nature
- b. deciding the future of the earth's ecology: collective decision-making vs. ecological libertarianism?
- c. are some risks too great to take when the potential effects of our actions are not predictable?
- d. preservation of the ecological status quo vs. evolution
- e. Case study: the creation of boitechnology

*Hacking, "Culpable Ignorance of Interference Effects", in McLean, ed., Values at Risk, 136-54.

*Lyons, D., "Are Luddites Confused?", Inquiry, 22 (1979): 318-403.

*Glover, J., "Questions About Some Uses of Genetic Engineering", in Beauchamp and Walters, eds., Contemporary Issues in Bioethics, (3rd edition), 525-535.

*Schrage, Michael, "Economics vs. Ecology: World Hunger and Technology's Tough Trade-Offs", The Washington Post, Feb. 23, 1990, F-3.

*Schneider, K., "Consumer Group Questions Milk Hormone's Safety", The New York Times, Dec. 4, 1990, A-23.

Spring Break - No class March 27th

10) Environmental Goods as Public Goods: Decisions Affecting the Collectivity

- a. the definition of public goods
- b. why private legal remedies are inadequate
- c. is the case for governmental regulation of air pollution different from (most) other environmental problems?
- d. policy study: air pollution and the new pollution futures market
- e. case study: greenhouse gases and transportation policy
- f. 1st World - 3rd World Justice - sacrifices for great benefit of others

*Boomer vs. Atlantic Cement Co., 287 N.Y.S. 2d 112 (sup. ct. 1987)

Portney, "Air Pollution Policy", ch 3., " PPEP, pp. 27-96.

*I. McLean, Public Choice, pp 9-22.

*Schelling, T., "The Ecology of Micromotives" in Robin Marris, ed., The Corporate Society, 19-64.

*Kimbrell, Andrew, "Car Culture: Driving Ourselves Crazy," The Washington Post, Sept. 3, 1989, C-3.

*Booth, William, "Carbon Dioxide Curbs May Not Halt Warming", The Washington Post, March 10, 1990, A-1, and A-8, col 1.

11) Individual & Collective Rationality in Environmental Decision-Making

- a. individually rational & collectively self-defeating choices
- b. interest groups, democracy, and environmental goods: the Olson paradox
- c. the limits of political solutions?: Arrow's paradox of democratic decision-making
- d. lessons from the battle for clean air: radical politics, and the future of political compromise

*Fiorino, D., "Environmental Risk and Democratic Process: A Critical Review", Colum. Envir. Law Review, (1990): 501-47.

*McLean, Iain, **Public Choice**, ch. 1.3, pp 22-27; ch 2.4, pp 34-39; ch. 4.1-.4, pp 62-76; ch. 8.1-.3, pp 154-168.

*Friedland & Cimbala, "Process & Paradox: The Significance of Arrow's Theorem", Theory & Decision 4 (1973): 51-64.

IV. Distributive Justice - Duties to Sacrifice for Others

12) Limited Resources & Unlimited Population: Individual Rights & Global Welfare

- a. Common good & individual liberty
- b. is there a duty to limit consumption?
- c. is there a duty to limit reproduction?
- d. is there a connection between the duty to aid and the population policies and practices of the beneficiaries?
- e. case study: race, class, and economic nationalism: 1st world consumption and limiting 3rd world population

*Hardin, "The Tragedy of the Commons"; Science, 162 (1968): 1245-48. Reprinted in Shrader-Frechette, Environmental Ethics, 242-52.

*Callahan, "Ethics and Population Limitation", Science, 175 (1972): 487-94. Reprinted in Shrader-Frechette, Environmental Ethics, 253-67.

*Parfit, "Overpopulation and the Quality of life", in Singer, ed, Applied Ethics,

*Singer, "Famine, Affluence, and Morality", in Aiken and LaFollette, eds, World Hunger and Moral Obligation, 22-36.

handout on 1st world resource consumption

13) Duties to Sacrifice for the Benefit of Future Generations

- a. religious perspectives
- b. Rawlsian perspectives
- c. who has rights against the living?

*Callahan, "What Obligations Do We Have to Future Generations?", The American Ecclesiastical Review, vol. 164, (1971), 265-80.

*Golding, "Obligation to Future Generations" The Monist, 1972, vol. 58, 85-99.

*Feinberg, "The Rights of Animals & Unborn Generations.", in Mappes & Lembaty eds. Social Ethics, 484-95.

*Green, "Intergenerational Justice & Environmental Responsibility", Bioscience, 27 (1977), 260-5.

*Barry, "Justice Between Generations", in Hacker and Raz, eds, Law, Morality and Society, 268-84.