

Index

- AALAS: animal research legislation
 and, 21–22; ignoring ethics by, 111, 119
- ACUC legislation: animal activists’
 criticism of, 124; congressional
 hearings on, 116–17; development of,
 113–20; effectiveness of, 121–28, 243;
 goals of, 113–15; guide for, 119–20;
 provisions of, 120–21; scientific
 ideology erosion with, 121–28;
 transgenic animals/disease models
 and, 182
- adult stem cells, 210
- agriculture: business model of, 191–92;
 harmful changes in, 4–5; lack of laws
 regulating research in, 127, 170–71;
 monoculture in, 165, 192–93.
See also animal husbandry; factory
 farming
- Akaka, Abraham, 200, 201
- Albert Einstein: Philosopher/Scientist*, 39
- alcoholism as “disease,” 25
- alternative medicine, 4, 5–6, 244–45
- American Association for Laboratory
 Animal Science. *See* AALAS
- American Journal of Obstetrics and
 Gynecology*, 75
- American Medical Journal*, 255
- American Physiological Society, 115, 116,
 118
- American Psychological Association,
 252
- American Veterinary Medical Association
 Code of Ethics, 43
- American Veterinary Medical Association
 conference report on animal pain,
 118–19
- analgesics, 120, 222
- Anand, K. J. S., 223–25, 233
- anesthesia definition/description,
 222
- Animal and Plant Health Inspection
 Services, 117
- Animal Care and Use Committees.
See ACUC legislation
- animal consciousness, 240–41
- animal husbandry, 168, 203–05
- Animal Machines* (Harrison), 109
- animal nature/*telos*, 108
- animal pain: animal stoicism and, 242;
 AVMA conference report on, 118–19;
 companion animals and, 243; human
 pain models and, 118, 119, 236, 241; as
 more acute, 236; paralytic drugs and,
 110; perception and, 51; researchers
 early dealing with, 117–20; Rimadyl
 and, 243; scientists’ denial of, 28–29,
 99, 110, 215–16, 239–43. *See also* ACUC
 legislation; pain
- Animal Pain: Perception and Alleviation*,
 118, 240
- animal research: abuse scandals, 115;
 cosmetic testing and, 103, 104, 172;

- animal research (*cont.*)
 “euthanizing” animals, 18; lack of ethics effects, 109–10, 122, 124; medical schools and, 18–19; middle ground on, 100, 113; overview, 18–20; paralytic drugs and, 121; proper environment for animals, 109–10, 115, 121, 172, 173; scientists’ emotional defense of, 21–22; scientists’ inability to defend ethically, 110–13; social ethics and, 43–44.
See also biomedicine; veterinary medicine; veterinary school
- animal research legislation: AALAS and, 21–22; scientists’ opposition to, 21–22.
See also ACUC legislation
- animal rights, 101, 104, 108
Animal Rights and Human Morality (Rollin), 101
- animal welfare: communications to Congress about, 101–02; companion animals and, 104; cruelty to animals, 104, 105–06; factory farming and, 102, 103, 108–09, 168, 172, 203–05; in Europe, 102, 103, 104, 108–09; legislation (U.S.) and, 102–03; social consensus ethics and, 35; society’s increasing concern for, 100, 101–06, 108–09, 171–72; sow stalls and, 102; U.S. vs. Europe, 108–09; veal industry and, 102; wildlife management and, 103–04; xenotransplantation and, 209–10. *See also* ACUC legislation; BST controversy
- Animal Welfare Act amendment, 117
Annals of Internal Medicine, 251
- anti-intellectualism, 3, 109
Anti-Intellectualism in American Life (Hofstadter), 109
- APHIS and ACUC, 117
- Aristotle: assumptions and, 38; biology vs. physics, 27, 29; *Metaphysics*, 15; nominalism and, 142; *physikoi* and, 15; reductionism and, 139; the “subjective” approach of, 216, 217
- Arrogance of Humanism* (Ehrenfeld), 190
- Asilomar Conference, 160
- assumptions: all disciplines and, 38; philosophy and, 37–39; Plato and, 39; AVMA Code of Ethics, 43
- AVMA conference report on animal pain, 118–19
Awakenings (Sacks), 24, 141
 Ayer, A. J., 16
- Bacon, Francis, 16
 Beecher, Henry, 72–73
 behaviorism, 27, 217, 218
 Bell, Robert, 256, 269
 Belmont report/principles, 87–88
 Beltsville pig, 168
 “beneficence” in Belmont report/principles, 88
 Bentham, Jeremy, 58
 Berg, Alan, 107
 Bergson’s life force, 16
 Berkeley, George, 237
Betrayers of the Truth (Broad and Wade), 248–49
- biblical fundamentalism as ideology, 12
- Biological Science* (Keeton and Gould), 17
- biomedicine: effects of private research on, 255–56; funding and values, 23; humans as models in, 22–23; public’s loss of faith in, 4; safety of animal drugs vs. human drugs, 23. *See also* animal research; biotechnology; veterinary medicine; veterinary schools
- biotechnology: ACUC legislation and, 127; computer-age comparison, 130–31; Europe’s rejection of, 104; Frankenstein myth and, 133–35, 143, 205; human growth hormone gene and, 136–37, 153–54, 168–69, 203; polls on, 130, 131–33, 135–36, 177, 185–86; problems overview, 9–10; scientists’ attitudes and public response, 129–33, 190–91, 214. *See also specific technologies*
- biotechnology and suffering animals: euthanasia and, 170, 172; lessons to be learned about, 169–70; overview/examples, 168–72
- biotechnology as “dangerous”: AIDS research example, 157–58; animal disease models and, 166; antibiotics in animal feed example, 160–61; BST controversy, 103, 161–63; chaos theory and, 158–59; common sense vs. science, 159–60; environmental

- problems with, 166; ethics of acceptable risk, 160–61; food animals and, 164; Frankenstein myth and, 155–59; *Jurassic Park* example, 158–59; loss of genetic diversity with, 165; Newtonian predictability and, 158–59; overview of dangers, 163–67; pathogen changes/resistance and, 165–66; pleiotropic effects, 163–64; socioeconomic problems, 167; terrorist/military dangers, 166–67; traditional breeding problems example, 163–64
- biotechnology as “intrinsically wrong”: environmental philosophy and, 149–53; Frankenstein myth and, 133–35; human genetic disease research, 154; mixing of human/animal traits, 153–54; pervasiveness of position, 135–36; public view of, 98, 131–33; reductionist approach and, 138–42; species inviolability and, 143–49; theology and, 136–38
- Blake, William, 3
- Boas, Roger, 266
- Body Shop, 103
- Bohlin, Ray, 212
- Bonhoeffer, Dietrich, 137
- “Boy with Two Fathers,” 51
- Boys from Brazil, The*, 194
- Braunwald, Eugene, 251
- Brave New World* and utilitarianism, 58, 62
- Braybrooke, David, 11, 13
- British Journal of Obstetrics and Gynecology*, 257
- Broad, William, 248, 250, 252, 260, 265, 268
- Brockovich, Erin, 268
- BST controversy, 103, 161–63
- bullfighting, 104
- Bush, George W., 211
- capital punishment, 20
- capitalist ideology, 12
- careerism and fraud in science, 250–54
- Carson, Rachel, 149
- Categorical Imperative, 59
- cattle, double muscling engineering, 170. *See also* BST controversy
- Chamberlain, Geoffrey, 257
- chaos theory, 158–59
- child abuse as “disease,” 25
- Chomsky, Noam, 239
- circuses, 103
- civil rights example of social ethics criticism, 41–42
- Clinton, Bill, 42, 178; Bioethics Commission, 130
- clitrectomies, 12–13
- cloning: of companion animals, 205; exploitation and, 188–89; genetic diversity loss with, 191–94; genetically vs. literally identical individuals concept, 186, 194–96; as “intrinsically wrong,” 188–91; “playing God” argument, 208; possible harm to clones, 202–08; public reaction to Dolly, 130, 131, 185–87; religious arguments about, 186–90; risks with cloning animals, 191–94
- cloning humans: benefits of, 200, 201–02; “eugenics” and, 199; “family values” and, 196–98; fertility drugs ethics vs. 199; for “spare parts,” 200–01; Hitlers and, 194, 195–96; “human dignity” and, 189, 198–99; as “intrinsically wrong,” 188–89; legislation against, 207–08; public attitude toward, 186–87; racism and, 199–200; “risks” of, 194–201; social reaction to clones, 205–07
- cloning organs, 201. *See also* xenotransplantation
- CNN/*Time* magazine survey, 185–86
- Cohen, Carl, 113
- cold fusion scandal, 267
- Colorado State University: ethics education at, 270–72; laboratory animal welfare rating, 271
- Commission on Research Integrity, 262
- commodification of animals, 203. *See also* factory farming
- communitarian concerns and Kantianism, 62
- consequentialist (teleological) theories, definition/description, 57. *See also specific theories*
- contradictions in ethics, 56–57
- Craig, K. D., 233

- Crichton, Michael, 158–59
 Cuyahoga River burning, 3, 149
- Daily Mail*, 257
 Darsee, John, 251–52, 253
 De Bakey, Michael, 116, 117
 Declaration of Helsinki, 71
 democratic societies, ethical system
 judging and, 50. *See also* Western
 democratic societies
 Democritus, 139
 demonic possession/exorcism, 6
Denver Post, 107
 deontological theories: definition/
 description, 57; examples, 59;
 Descartes, René, 26, 216, 232, 233, 236,
 261
 Dewey, John, 138
 disease: concept of, 24–26, 140;
 individual variations in, 23–24, 140–41;
 valuational components of, 23
 distress, 245–46
 diversity. *See* multiculturalism
 Dole, Bob, 117
 Dolly and cloning, 130, 131, 185–87
 Driesch's postulation of "entelechies," 16
 Duchamp, Marcel, 38
 Duhem, Pierre, 261–62
- Earth Day, 3, 150
 Eddington, Sir Arthur, 258–59
 Ehrenfeld, David, 190
Einsatzkommando, 27, 68
 Einstein, Albert, 16, 39
 electrical transmission line dangers,
 157
 Ellsberg, Daniel, 268
 embryonic stem cell research: abortion
 views and, 212–13; beginning of
 human life and, 211–14; benefits of,
 210–11; debate over, 210, 211–14;
 overview, 210–14; therapeutic cloning
 and, 213–14
 embryonic stem cells, 210
 "entelechies," 16
 entrepreneurship and fraud in science,
 256–57
 environmental considerations for
 animals, 109–10, 115, 121, 172, 173
 environmental degradation, 3
 environmental philosophy, 149–53
 environmentalism growth, 3–4
 EPA, 26, 69
 ethical decisions: contradictions and,
 56–57; overview, 54–56. *See also* ethical
 theories
 ethical relativism: arguments against,
 46–50; definition/description, 42,
 46–47; as self-defeating, 47
 ethical rules/edicts: consistency of, 48;
 definition/description, 45–46;
 differences in people and, 48; as
 essential to society, 47–48; types of
 rules needed, 47–48
 ethical theories: individual vs. society,
 62–63; moral psychology and, 61–62;
 religion and, 57; societal differences in,
 63; types of, 57. *See also specific theories*
 ethics: AALAS meetings and, 111; of
 acceptable risk, 160–61; changes in,
 6–8, 31; dog abuse case, 52–54; ethical
 judgments, 50–54; Ethics₁ vs. Ethics₂,
 31–32; judging systems, 47–50; legal
 system and, 33; medical ethics
 overview, 8–9; objectivity and, 32–33;
 recognizing ethical issues, 50–54;
 scientists' education in, 270–74; sexual
 behavior and, 34–35; social order and,
 45–46; social policy and, 33–34; system
 selection for reincarnation, 49–50. *See*
 also specific types of ethics
Ethics and Regulation of Clinical Research
 (Levine), 86
 ethics ombudsman, 270–74
 Ethics₁: components of, 32;
 definition/description, 31; Ethics₂ vs.,
 31–32, 44–45; monitoring needs of, 37
 Ethics₂: definition/description, 31, 37;
 Ethics₁ vs., 31–32, 44–45; philosophy
 and, 37. *See also* philosophy
 eugenics and cloning, 199
 exorcism/demonic possession, 6
 extinction, 144–45, 193–94
- factory farming, 102, 103, 108–09, 168,
 172, 203–05
 Feder, Ned, 268
 Felig, Philip, 256–57
 Ferrell, B. R., 221
 Feyerabend, Paul, 258
 Fischer, Ronald, 259
 Fleischmann, Martin, 267

- Forman, Paul, 30
 Fox, Michael A., 113
Frankenstein (Shelley), 2
 Frankenstein myth and biotechnology,
 133–35, 143, 153, 155–59, 205
Frankenstein Syndrome, The, 133–35
 fraud in science: accountability and,
 262–63; biomedical research by private
 companies and, 255–56; careerism
 and, 250–54; Darsee case, 251–52;
 effects of, 261–62; entrepreneurship
 and, 256–57; gene therapy and,
 254–55; gift authorship and, 257–58;
 from laziness, 260; loss of autonomy
 and, 262–63; money and, 254–57;
 Neurontin example, 255; peer review
 and, 263–64; pharmaceutical
 companies and, 255–56; quantity vs.
 quality and, 251; referee process and,
 264–67; replicability and, 267–68;
 response to, 260–63; self-policing
 methods, 262–68; statistics/data on,
 252–54; theoretical bias and, 258–60;
 whistleblowing and, 268–70
 fur wearing, 104
- Galileo, 26
 gambling as “disease,” 25
 Gaskell, George, 104, 131, 177
 Gelsinger, Jesse, 87, 254
 Gelsinger, Paul, 255
 gene libraries, 165, 193–94
 gene therapy, 87, 254–55
 genetic diseases: Lesch-Nyhan’s disease,
 175–78; somatic cell therapy and, 196;
 statistics on, 174; therapeutic abortion
 and, 175, 176, 178. *See also* transgenic
 animals/disease models
Gentle Vengeance, 18
 gift authorship, 257–58
Glamour, 104
 “God of the gaps,” 137
 Golden Rule, 48–49
 Goldhagen, Daniel, 14–15, 67, 68
 Good Laboratory Practices Act, 260
 Gorman, Harry: background, 100–01;
 pain relief for animals, 110; veterinary
 medicine ethics, 43
 Gould, J. L., 17
 Grandin, Temple, 203
 Green Revolution, 1, 4–5
- Gresham, Thomas, 129
 Gresham’s law, 129; Gresham’s law for
 ethics, 9, 129, 185
- “halo” effect, 51
 Handler, Philip, 261
 happiness in utilitarianism, 58
 Harakas, Stanley, 188–89
 Harrison, Ruth, 109
 Hatch, Orrin, 211
 Hickey, P. R., 223–25
 Hitler, Adolf, 67
Hitler’s Willing Executioners (Goldhagen),
 14
 Hobbes, Thomas, 45, 47, 49
 Hofstadter, Richard, 109
 human equality and ideology, 12
Human Guinea Pigs (Pappworth), 73–74,
 79
 Human Radiation Experiments Web site,
 80
 human research. *See* research on humans
Human Use of Human Beings, The
 (Wiener), 131
 Hume, David, 118, 160, 247
 hunting, 104
- IASP: modification of pain definition,
 239; pain definition of, 231–34
 Icelandic epic poems, 46
 ideology: biblical fundamentalism as, 12;
 definition/description, 11, 13; hatreds
 and, 14–15; human equality and, 12;
 Marxism and, 12; of militant Muslims,
 13; multiculturalism and, 12–13; Nazis
 and, 14–15, 67–69; racism and, 13–14;
 reasons for, 13; research on humans
 and, 67–69; Ten Commandments’
 interpretation, 12; thinking and,
 13–14. *See also* scientific ideology
Impure Science: Fraud, Compromise, and
Political Influence on Scientific Research
 (Bell), 256, 269
 individual rights in democracies,
 63–64
 informed consent: comprehension of
 information, 89–90; information with,
 88–89; statement of, 88–91;
 voluntariness and, 90–91
 Ingelfinger, Franz, 86
 Inquisition, 67

- Institutional Review Board*, 82
 Institutional Review Boards (IRBs),
 86–97
 interdisciplinary teaching, 51–52
 International Association for the Study of
 Pain. *See* IASP
 International Conference on Genetic
 Engineering of Animals, 133
 intrinsic value, 60–61, 153
- Jacob's Ladder*, 80
 Jewish Chronic Disease Hospital
 experiments, 81
 Johnson, Lyndon, 41–42
 Joint Commission on Accreditation of
 Healthcare Organizations, 226
 Jones, E. W., 119, 240
Journal of the American Medical Association,
 256
Journal of Clinical Ethics, 221
 “judo vs. sumo” approach, 40–42,
 106–07
Jurassic Park (Crichton), 158–59
 “justice” in Belmont report/principles,
 88
- Kamin, Leon, 259
 Kant, Immanuel: intrinsic value, 60–61;
 morality, 48; responsibility, 25; test of
 universality, 59–60
 Kantianism: criticism of, 61–62; overview,
 59–61
 Katz, Jay, 71, 83, 86
 Keeton, W. T., 17
 Kelley, W. N., 175, 176
 Kennedy, Donald, 116, 261
 ketamine: background information on,
 227–28; flashbacks/“bad trips” with,
 228–31; “illegal” use of, 230; personal
 account of effects, 228–30; use in
 elderly/young, 230–31; veterinary
 medicine use of, 230
 killing (humans): logical positivism and,
 17, 20; Ten Commandments’
 interpretation and, 12
King Kong, 168
 King, Martin Luther, 32, 39, 40
 Kitchell, Ralph, 236
 Kitchen, Hiram, 118
 Koshland, Daniel, 261
 Kuhn, Thomas, 258
- Lab Animal*, 171
Lancet, 206
Language, Truth, and Logic (Ayer), 16
 laziness and fraud in science, 260
 Lederer, Susan, 79
 Lesch-Nyhan’s disease, 175–78
 Levine, Robert, 86
 Liebeskind, John, 220–21
 Lifton, Robert Jay, 67, 68
 logical positivism, 16–17, 20
 Losonsky, Michael, 203
 LSD experiments, 80
 Lumb, W., 119, 240
- Mader, S., 17
 Mahoney, Michael J., 265
 Manhattan Project, 20
 marijuana use in medicine, 227
 Marks, R. M., 219, 221
 martial arts example, 40–42, 106–07
 Marxist critique of capitalism, 12
 mathematics envy, 29
 Mayr, Ernst, 146
 medical marijuana, 227
 medicine: as art and science, 218; pain
 treatment in, 219–28; physicalization
 of, 218, 219; scientific ideology and,
 83–84
Meditation One (Descartes), 261
 Melcher, John, 117
 Melzack, Ron, 220–21
 Mendel, Gregor, 259
 mentally defective/ill and abuse, 76, 81
 Merskey, Harold, 232–33
Metabolic Basis of Inherited Disease, The, 174
Metaphysics (Aristotle), 15
 Michelson-Morley experiment example,
 258
 Milgram, Stanley, 14, 96
 military (U.S.) research on humans, 80,
 85
 Mill, John Stuart, 58
 money and fraud in science, 254–57
 monoclonal antibodies (MAbs)
 production, 171
 monoculture, 192–93
 monolithic culture, 13
 Monsanto, 10
 Moraczewski, Albert, 189
 moral arguments vs. religious
 pronouncements, 187–88

- moral principles/Ethics, principles, 56
 moral psychology and ethical theories, 61–62
 Moreno, Jonathan, 79
 multiculturalism: ethical relativism and, 47; friction/tension and, 13; ideology and, 12–13
 Muslim militant ideology, 13
 mystics, 5–6
- National Bioethics Advisory Commission, 189, 197
 National Institutes of Health (NIH): ACUC legislation and, 117, 121; *Guide for the Care and Use of Laboratory Animals*, 115
 National Society for Medical Research, 112
Nature, 271
 Nazis: experiments on humans by, 66–70; ideology and, 14–15, 67–69;
 Neurontin, 255
New England Journal of Medicine, 72, 86, 94, 113, 222, 225
New Scientist, 252
New York Times, 108, 254, 257
 Newton, Sir Isaac, 15, 16, 26
 Newtonian predictability, 158–59
 nominalism/realism debate, 142–43
 nuclear power plant disasters, 155, 157
 Nuremberg Code: criticism of, 66–71; description/principles of, 70–71; U.S. reception of, 71–72
 Nuremberg trial, 70
Nursing Standard, 221
- obesity as “disease,” 24–25
Of Human Bondage (Maugham), 46
 Office for Human-Research Protections, 94
 Operation Desert Storm experiments, 80
 Operation Paper Clip, 69, 80
 Ouspenskaya, Maria, 135
- pain: addiction fears and, 226–27; alternative medicine and, 244–45; cancer treatment and, 219, 220; children/infants and, 220–21, 222–26, 230–31; effects of IASP’s definition of pain, 231–32, 233–34, 239; elderly and, 220–21, 230–31; historical treatment/view of, 221; IASP’s definitions of, 231–34, 239; linguistic competence and, 231, 236–39; management change in animals vs. humans, 243–44; medical treatment of, 219–28; neonate surgery and, 222, 223–25; over-the-counter medications and, 244; paper on neonate pain, 223–25; people seeking euthanasia and, 219; physicalization of medicine and, 218, 219; reasons for ignoring in neonates, 223; recognition of, 234–36; scientists’ denial of, 215–16; undertreatment of, 219–26. *See also* animal pain
 pain behavior, 233
 pain control: denial of animal pain and, 28–29, 99, 110, 215–16, 239–43; in animals vs. humans, 243–44; increased interest in (for animals), 243; need for, 219–26; over-the-counter medications and, 244. *See also* ACUC legislation; alternative medicine
Pain, 220–21
Pain Forum, 231
 Pappworth, D. H., 73–74, 79
 paralytic drugs: definition/description, 222; in neonate open heart surgery, 222; in veterinary medicine, 240
 pathogen changes/resistance: antibiotic use and, 165–66; biotechnology and, 165–66
 pathogen release experiments, 80
 Pearce, Malcolm, 257
 peer review, 263–64
 People for the Ethical Treatment of Animals (PETA), 54, 102
 perception and ethical judgment, 50–54
 Pernick, Martin, 221
 personal ethics: criticism of, 42–43; definition/description, 34; logical inconsistencies in, 42–43; relationship with social consensus ethics, 34–35
 pharmaceutical companies’ research, 255–56
 philosophy: assumptions and, 37–39; as “not scientific,” 30. *See also* Ethics₂
 Phinney, C., 252–53
physikoi, 15
 plagiarism: peer review and, 263; referee process and, 264

- Plato: ethical assumptions and, 39;
 ethical rules, 45, 46; ethical theory, 58;
 ethics and public policy, 33; ethics'
 importance, 273; human potential, 45;
 on social ethics criticism, 39;
 recollection, 106; selecting ethical
 system for reincarnation, 49; the
 sensory and, 27; as utilitarian, 61;
 "playing God" argument, 208
 pleiotropy, 163–64
 pollution, 3
 Pons, Stanley, 267
 Pope John Paul II, on cloning, 186; faith
 vs. secular ethics, 188; stem cell
 research, 211
 Principle of Conservation of Welfare, 171
 professional ethics: legislative constraints
 and, 36–37; overview, 35–36, 181;
 transgenic animals/disease models
 and, 182–84
 professional ethics criticism: loss of
 autonomy and, 43–44, 181–82;
 overview, 43–44;
 Prohibition: social ethics criticism and,
 42; social policy-morality relationship
 and, 33
- quantum theory, 30
- racial hygiene of Nazis, 67–68
 racing (dogs/horses), 104
 racism: human cloning and, 199–200;
 ideology and, 13–14
 radiation experiments on humans, 80
 Raelians, 207
 Ramsey, Paul, 190
 Rascher, Sigmond, 69
 Rawls, John, 49
 Reagan, Ronald, 1
 realism/nominalism debate, 142–43
 recollection of ethics: increased concern
 for animals and, 108; IRBs and, 95–96;
 pain control and, 243–44; Plato and,
 106. *See also* "judo vs. sumo" approach;
 reminding vs. teaching ethics
 reductionism, 29, 138–42, 216–18
 Reed, Walter, 80
 referee process, 264–67
Reflections, 188
 Reid, Thomas, 46, 239
 reincarnation and ethical systems, 49–50
 religious pronouncements vs. moral
 arguments, 187–88
 reminding vs. teaching ethics, 39–42,
 106–07, 128
 replicability, 267–68
Republic (Plato), 49, 58, 273
 Research Modernization Act, 115
 research on humans: abuse accounts by
 Pappworth, 73–79; assessment of risks
 and benefits, 91–93; Beecher's articles
 on, 72–73; behavioral research and,
 96; children/infants, 74–75;
 comprehending unethical research,
 81–86; Declaration of Helsinki, 71;
 drug testing, 79; dying/elderly, 76–77;
 ethics education and, 97–98; as
 extensions of operations, 77–78;
 fundamental human decency and,
 66–67; ideology and, 67–69;
 inducement of illness in, 79;
 "inferiors," 85; informed consent and,
 88–91; Jay Katz story, 82–83; medical
 training and, 83–84; mentally
 defective/ill, 76, 81; Nazi research,
 66–70; nonpatient volunteers/
 students, 77; patients, 77–78, 81;
 patients as controls, 78; pregnant
 women, 75; prisoners, 69, 76, 85;
 regulation of, 86–97; scientific
 ideology and, 81–87; subject selection,
 93–94; U.S. attitude toward
 (post-Naziism), 71–72; U.S. military
 research, 80, 85; voluntary consent
 and, 66–71. *See also* Belmont
 report/principles; Nuremberg Code
 "respect for persons" in Belmont
 report/principles, 87–88
 reviewer bias, 264–66
 Rhiner, M., 221
 Riesman, David, 247
 Rifkin, Jeremy, 9, 130, 138–39, 141–43
 Rimadyl, 243
 risks and benefits, assessment of: ethics
 of, 160–61; nature/scope of, 91–92;
 statement of, 91–93; as systematic,
 92–93
 Rissler, Robert, 117
 Rockefeller, John D., 80
 rodeo example, 40–41
 Rollin, Bernard, 101; biotechnology and
 ethics of risk, 160–61; rodeo ethics,

- 40–41; solution for transgenic animal disease models, 179–84; on student thinking about ethics, 44–45. *See also* ACUC legislation
- Rolston, Holmes, 152
- Rosenthal effect, 50
- Rowan, Andrew, 264
- Ruse, Michael, 146
- Russell, Bertrand, 234
- Ryan Commission Report on Integrity and Misconduct in Research, 269, 270, 272
- Sacher, E. S., 219, 221
- Sacks, Oliver, 24, 140–41
- School of Aviation Medicine, 69
- Schroeder, Pat, 116–17
- science: changing faith in, 1–10; epistemic basis, 22; ethical education and, 270–74; as “ethics/value-free,” 17–22, 27–29, 248; humanness of scientists, 247–50; public confidence and, 5, 6. *See also* fraud in science
- Science*, 110, 261
- scientific ideology: ACUC legislation effects on, 121–28; behaviorism and, 27; common sense and, 11, 85, 159–60; as “Common Sense of Science,” 28; epistemic basis of science and, 22; ethical issues’ recognition and, 54; ethical judgments and, 45–46; ethics education and, 97–98; evolution of, 15; experience and, 15–17; issue of “killing,” 17, 20; logical positivism and, 16–17; Manhattan Project and, 20; medical training and, 83–84; public credibility and, 98; reductionist approach in, 29, 216–18; research on humans and, 81–87; science as “ahistorical,” 29–30; science as “aphilosophical,” 30; value changes and, 26–27. *See also* subjective experience and science
- scientific revolution, 26–27, 217
- Secundy, Marian Gray, 200
- Seed, Richard, 205, 207
- Shafir, Sharoni, 261
- Shelley, Mary, 3
- Shock Society and *Shock* journal, 266–67
- Singular, Steve, 107
- 60 Minutes*, 76
- social consensus ethic: animal treatment and, 35, 180–81; definition/description, 34; individual rights’ priority in, 95; relationship with personal ethics, 34–35; social order and, 34, 45, 180–81
- social ethics criticism: civil rights example of, 41–42; martial arts example, 40–42, 106–07; Plato on, 39; Prohibition and, 42; “reminding” vs. teaching, 39–42, 106–07, 128; rodeo example, 40–41
- Society for the Study of Pain, 127
- Socrates, 37
- solipsism, 234
- Soman, Vijay, 256–57
- somatic cell therapy, 196
- Sophists, 46
- sow stalls, 102
- space shuttle tragedies, 155, 157
- species concept, 147
- species inviolability: biblical source of view, 145; biotechnology and, 143–49; extinction and, 144–45; scientific community and, 145–47; scientific debate on, 143; species changes and, 147–49
- Spinoza, 238
- Spira, Henry, 109, 113
- stem cell research. *See* embryonic stem cell research
- Stevenson, Adlai, 3, 109
- Stewart, Walter, 268
- Strughold, Hubertus, 69
- subject selection, 93–94
- Subjected to Science: Human Experimentation in America before the Second World War* (Lederer), 79
- subjective experience and science, 27, 32–33, 54, 99, 115, 120, 215–19, 220, 223, 225, 227. *See also* scientific ideology
- “sumo vs. judo” approach, 40–42, 106–07
- syphilis study, Tuskegee, 81
- Taliban culture, 13
- te Velde, E. R., 206
- teaching vs. reminding ethics, 39–42, 106–07, 128
- teleological ethical theories. *See* consequentialist (teleological) theories

- terrorism and biotechnology, 166–67
 Tesco (British) supermarket chain, 103
 theoretical bias and fraud in science, 258–60
Theory of Justice (Rawls), 49
 therapeutic abortion, 175, 176, 178
 therapeutic cloning, 213–14
 Thomas, Lewis, 261
 Thomson, James, 210
Time, 135
 toxicology: nonmammalian model for, 263–64; research in, 127
 transgenic animals/disease models:
 ACUC and, 182; ethical solution for, 179–84; ethics overview, 172–75;
 Lesch-Nyhan's disease, 175–78;
 professional ethics and, 182–84; public attitudes on, 178, 180; seriousness of issue, 178–79
 truth telling as essential, 46, 48
tsar baalay chaim, 105
 Tuskegee syphilis study, 81

Undue Risk: Secret State Experiments on Humans (Moreno), 79
 universality test, 59–60
 USDA: ACUC legislation and, 121; “distress” and, 122
 utilitarianism: criticism of, 58, 61–62; overview, 57–59

 values change in scientific revolution, 26–27, 217
 Varmus, Harold, 254
 veal industry, 102
Veterinary Anesthesia (Lumb and Jones), 119, 239–40
 veterinary medicine: denial of animal pain in, 240; ethics vs. etiquette, 100–01; extralabel drug use in, 36, 43–44; ketamine use in, 230; professional ethics and, 43; social fear of irresponsible drug use in, 36, 43–44
 veterinary schools: animal treatment in, 18, 19; ethics course for, 100–01; multiple survival surgeries, 19, 106–08, 112
 virtue ethics, 61
 Von Braun, Wernher, 69

 Wade, Nicholas, 248, 250, 252, 260, 265, 268
 Walco, G. A., 225–27
 Walgren, Doug, 117
 Watson, J. B., 217, 218
 Waxman, Henry, 116, 117
 Western democratic societies: individual rights in, 63–64; individuals vs. society in, 63–64; social ethics of, 62. *See also* democratic societies
 “Whistleblower’s Bill of Rights,” 269
 whistleblowing, 268–70
 Wiener, Norbert, 130
 wildlife management, 103–04
Will I Be All Right, Doctor? (film), 21, 112
 Willowbrook State School experiments, 81
 Wittgenstein, Ludwig, 17, 55
 Wolff, Robert Paul, 84
 Wolfe, Tom, 172
 World Health Organization: antibiotics in animal feed, 160; health definition, 24, 140
 World Medical Association, 71
 Wyngaarden, J. B., 19–20, 175, 176
 Wyoming’s monolithic culture, 13

 xenotransplantation: animal welfare and, 209–10; definition/description, 154; overview, 208–10; xenozoonoses and, 208
 xenozoonoses and xenotransplantation, 208

 yellow fever experiments on humans, 80
 zoos, 104