APPLIED ETHICS · STUDY GUIDE

Exam 6 Study Guide

This guide covers justice at the scale of whole societies and beyond the human. Chapter 11 asks what equality means and how harm is produced by institutions rather than villains. Chapter 12 widens the circle to animals, ecosystems and people not yet born, and asks where environmental harm actually lands. Read the "what to know" paragraphs, copy the tables out by hand, then try each worked case with the steps covered. Finish each chapter with its self-test.

WHAT THIS GUIDE COVERS

- Chapter 11 · five meanings of equality, Anderson and luck egalitarianism, redlining and the wealth gap, Griggs, Ricci and accommodation, harm, demeaning and deliberative freedom accounts, statistical discrimination, the IAT and audit studies, Whitehall and Marmot, biased instruments, SFFA, targeted universalism, reparations and epistemic injustice.
- Chapter 12 · moral status, Kant's indirect duties, Singer and Regan, biocentrism and ecocentrism, the Three Rs and the law, farm scale and Prop 12, climate science and burden sharing, non-identity and discounting, Ostrom, environmental justice cases, decision tools and health care's footprint.

CHAPTER 11

Social Justice, Equity and Discrimination

Read it in full: **Chapter 11 in the textbook**. Practice it in the lab: **The Neutral Rule Machine** and **The Gradient and the Instrument**.

What to know

"Equality" is five ideas. **Formal equality**: same rule for all (a poll tax was formally equal). **Equality of opportunity**: narrow (no deliberate barriers) or **fair** (similar talent, similar prospects whatever one's origin). **Equity**: distribute by need (ramps, interpreters, Title I). **Equality of outcome**: rarely defended strictly but useful as a diagnostic. **Relational equality** (Anderson,

1999): abolish hierarchy so no one must grovel. Anderson criticized **luck egalitarianism** (Dworkin, Cohen, Arneson) as humiliating by design. Equity and equality are not opposites.

Structural injustice: disadvantage produced by the ordinary, often lawful, functioning of many institutions with no current agent intending it. HOLC (1933) drew residential security maps for 239 cities in 1935 to 1940; grade D was red. The FHA Underwriting Manual (1936, 1938) warned against "inharmonious racial groups." Contract buying (Coates, 2014) built no equity. 2022 median net worth: about $285,000 white, $61,600 Hispanic, $44,900 Black. The Fair Housing Act (1968) ended the practice, not the distribution. Aaronson found lasting map effects; the precise share of blame is contested.

Disparate treatment: adverse action because of a protected trait. Title VII (1964) covers race, color, religion, sex and national origin; age (1967) and disability (1990) followed; **Bostock** (June 2020) covered sexual orientation and gender identity. **Disparate impact**: a neutral practice that falls far harder on a group and is not justified by business necessity. **Griggs v. Duke Power** (8 March 1971, unanimous): diploma and test requirements; about 34% of white and 12% of Black men in North Carolina had diplomas; practices "fair in form, but discriminatory in operation" are barred unless job-related. Wards Cove (1989) was reversed by the Civil Rights Act of 1991. **Ricci** (2009, 5 to 4): discarding results needs a strong basis in evidence. The ADA adds **reasonable accommodation**.

Why discrimination is wrong. **Harm** accounts struggle with harmless cases. Hellman's **demeaning** account (2008): it expresses lesser worth. Moreau's **deliberative freedom** account: traits should not have to enter your life planning. **Statistical discrimination** (Phelps, Arrow) is not rescued by accuracy: the average is a poor guide to the individual, it is self-fulfilling, and a correct prediction can still wrong the person predicted. Population reasoning is fine; applying it downward to an individual who cannot leave the category is different.

Implicit bias: the IAT (1998) predicts behavior weakly (Oswald 2013, r about 0.1 to 0.15); Forscher (2019, 492 studies) found shifting implicit measures did not reliably change behavior. Greenwald and Banaji say it is not diagnostic for individuals. Field experiments are strong: Bertrand and Mullainathan (about 5,000 resumes, 2001 to 2002) found white-sounding names got

50% more callbacks (9.65% vs 6.45%). Kline, Rose and Walters (80,000+ applications, 108 firms) found about 9% more contact, with a fifth of firms producing nearly half the gap.

The **social gradient**. Whitehall I (1967; 17,530 male civil servants): the lowest grade died of coronary disease at about three times the rate of the top, stepwise at every grade, though nobody was poor. Whitehall II (1985; 10,308) with Marmot: smoking, blood pressure and cholesterol explained about a third; control, reward and participation mattered. The Black Report (1980, 260 copies). The Marmot Review (February 2010) coined **proportionate universalism**; the 2020 follow-up found life expectancy stalled after 2010.

US figures quoted accurately. Chetty (JAMA, 2016): at age 40, top 1% men live 14.6 years longer than bottom 1%; women 10.1. CDC maternal mortality 2021: 32.9 per 100,000 overall, 69.9 Black, 26.6 white (about 2.6 to 1); 2022: 22.3 overall, 49.5 Black. College-educated Black women had worse severe maternal morbidity than white women without high school (New York City). Sickle cell (about 100,000) vs cystic fibrosis (about 30,000): federal funding per person about $812 vs $2,807; foundations about $102 vs $7,690.

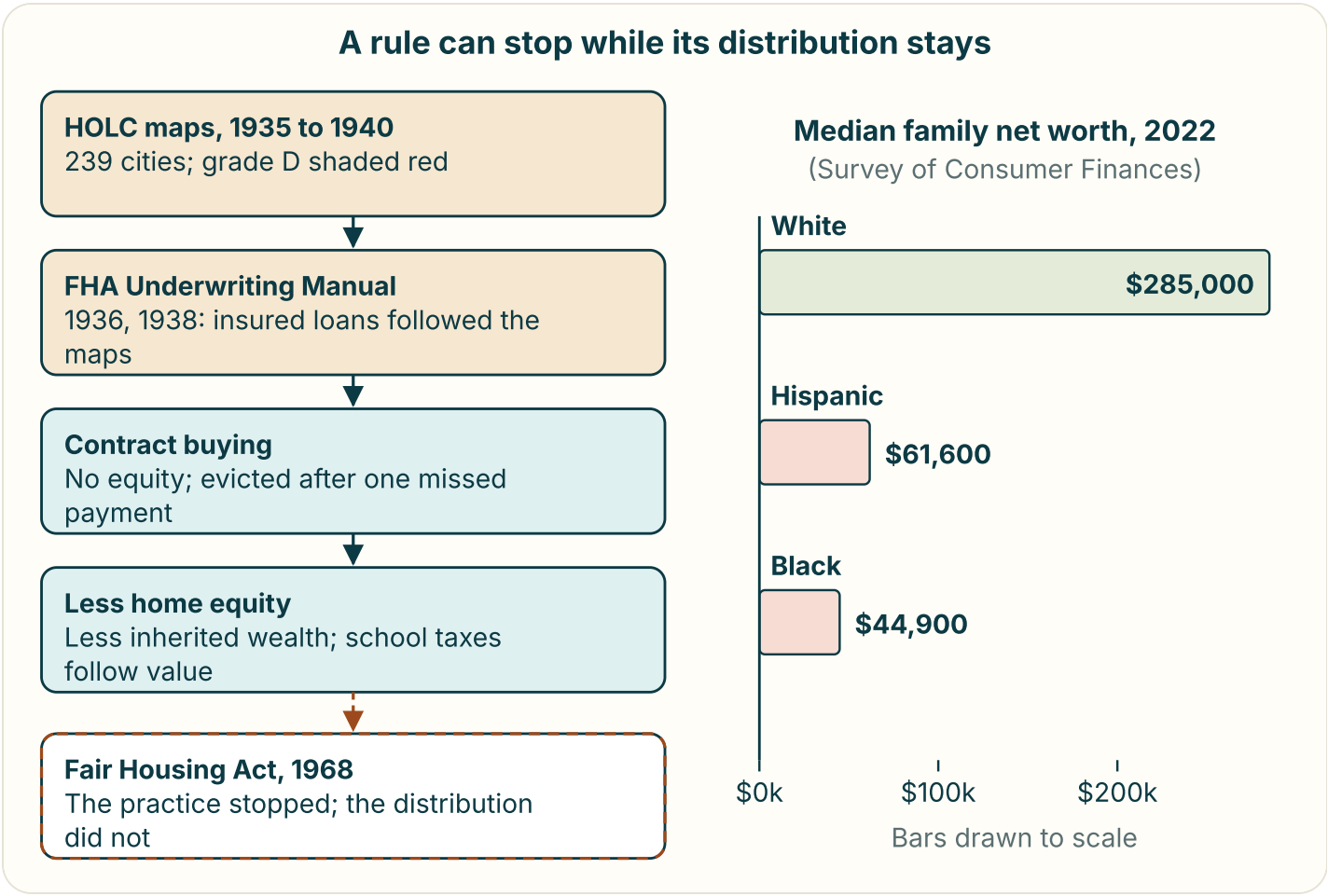
Bias in instruments. **Pulse oximetry** (Sjoding, NEJM, December 2020): among patients reading 92 to 96%, occult hypoxemia (true saturation below 88%) in 11.7% of Black vs 3.6% of white patients; FDA advisory 2022, draft guidance January 2025. **Cost-based risk algorithm** (Obermeyer, Science, 2019; about 200 million people): cost as a proxy for illness; fixing the target would raise Black enrollment from 17.7% to 46.5%. **eGFR** race-free 2021; **VBAC calculator** revised 2021; **spirometry** race-neutral (ATS, 2023). No biased person need be in the room.

Remedies. Affirmative action: Kennedy's EO 10925 (1961); **Bakke** (1978: quotas struck; diversity as the surviving rationale); **Grutter** (2003: holistic review; "25 years"); Gratz struck 20 points; Fisher (2016). **SFFA v. Harvard** (29 June 2023): failed strict scrutiny; military academies not addressed; essays about race allowed but not as a proxy. Proposition 209 (1996) cut enrollment; Sander's mismatch thesis is contested. **Targeted universalism** (powell). Reparations: Evanston (March 2021, $25,000 housing grants), California task force (June 2023), Georgetown (1838 sale; 2019 student vote), H.R. 40 since 1989. Dobbin and Kalev (2016, 829 firms): mandatory training backfired; mentoring raised representation about 9 to 24%.

Personal duties. DeGraffenreid v. GM (1976) and Crenshaw's **intersectionality** (1989): single-axis analysis hides compound harm. Fricker (2007): **testimonial injustice** (discounted credibility) and **hermeneutical injustice** (no concept to name the experience; Carmita Wood, 1975). Hoffman (PNAS, 2016): about half of 222 white trainees held a false belief about racial biology, and they rated Black pain lower. ANA commission (2022): 63% of nurses experienced racism at work. Cultural competence versus **cultural humility** (1998). Guilt is backward-looking; **responsibility** (Young) is forward-looking, shared and scaled by power, privilege, interest and collective ability. ANA provisions 8 and 9.

LOCK THESE IN

- Formal equality, opportunity, equity, outcome, relational equality: name the one in use.
- Structural injustice needs no villain; a rule can stop while its distribution stays.
- Disparate treatment needs causation; disparate impact needs no intent (Griggs).
- Accuracy does not rescue statistical discrimination.
- The IAT is a weak individual predictor; field experiments show discrimination clearly.
- The Whitehall gradient runs through every rank, not just the poor.
- Oximeters, cost proxies and race-adjusted equations built bias into tools.
- Guilt is backward-looking; responsibility follows participation forward.



No one at the wheel. Lawful institutions compounded an engineered disadvantage through housing, equity and schools. The 1968 ban stopped the practice, and the 2022 wealth figures show what remained.

Legal shapes of discrimination

Shape	Plaintiff shows	Landmark
Disparate treatment	Adverse action because of a trait	McDonnell Douglas v. Green, 1973
Disparate impact	Neutral practice causing substantial disparity	Griggs v. Duke Power, 1971
Hostile environment	Severe or pervasive conduct	Meritor v. Vinson, 1986
Failure to accommodate	Needed adjustment refused	ADA, 1990
Intersectional claim	Harm to a compound category	DeGraffenreid v. GM, 1976

Key terms and comparisons

Item	Meaning	Source or figure
Relational equality	No one stands below anyone	Anderson, 1999
Demeaning account	Discrimination expresses lesser worth	Hellman, 2008
Deliberative freedom	Traits should not burden life planning	Moreau
Callback gap	9.65% vs 6.45%	Bertrand and Mullainathan
Social gradient	Mortality rises at each lower grade	Whitehall, 1967
Proportionate universalism	Universal services scaled to need	Marmot, 2010
Occult hypoxemia	SaO2 below 88% with SpO2 92 to 96%	11.7% vs 3.6% (Sjoding, 2020)
Proxy bias	Cost stood in for illness	17.7% to 46.5% (Obermeyer, 2019)
Targeted universalism	Shared goal, tailored strategy	powell
Testimonial injustice	Credibility discounted by prejudice	Fricker, 2007

Worked cases

WORKED CASE 1 · EQUALITY OR EQUITY?

A hospital gives every employee a free gym membership at a gym open 6 a.m. to 8 p.m. Night-shift staff rarely use it. Analyze.

STEP 1 · FORMAL EQUALITY

Everyone gets the same offer: satisfied.

STEP 2 · THE INTERACTION

A neutral condition (hours) meets an unequal circumstance (shift).

STEP 3 · EQUITY RESPONSE

Not a different benefit, but a design that does not assume a day schedule.

STEP 4 · LESSON

Name which sense of equality is in play before arguing.

WORKED CASE 2 · APPLYING GRIGGS

A clinic requires a typing test for all aides. 70% of white applicants pass and 35% of Black applicants pass. Does disparate impact apply?

STEP 1 · FIND THE PRACTICE

A neutral test applied to everyone.

STEP 2 · MEASURE THE DISPARITY

Selection ratio: 35 ÷ 70 = **0.50**, a substantial disparity.

STEP 3 · EMPLOYER'S DEFENSE

Is fast typing job-related and consistent with business necessity for aides? If not, the test fails.

STEP 4 · PLAINTIFF'S REPLY

Even if related, a less discriminatory alternative (on-the-job training) can still win under the 1991 Act.

WORKED CASE 3 · ANSWERING THE ACCURATE-STATISTICS DEFENSE

An insurer charges a group more because its average claims really are higher. Is accuracy a defense?

STEP 1 · GRANT THE FACT

Assume the average is correct.

STEP 2 · THE INDIVIDUAL

The person is charged for a category she cannot exit; the average is a poor guide to her.

STEP 3 · SELF-FULFILLING

Treating the group as risky can raise its costs and renew the statistic.

STEP 4 · THE MORAL CORE

Hellman: she is treated as a specimen. Moreau: a trait is forced into her planning. A correct prediction can still be a wrong.

WORKED CASE 4 · A PROXY THAT DISCRIMINATES

An algorithm flags patients for care management by predicted cost. It never uses race. Explain how it disadvantaged Black patients and the fix.

STEP 1 · THE PROXY

Cost stands in for illness.

STEP 2 · THE GAP

Less is spent on Black patients at the same level of illness.

STEP 3 · THE RESULT

At equal risk scores, Black patients were sicker and less often referred.

STEP 4 · THE FIX

Change the target to a direct illness measure: Black enrollment would rise from **17.7% to 46.5%**.

TRAPS PEOPLE FALL INTO

- **Treating equity and equality as rivals.** Equity is a way to honor equal standing when circumstances differ.
- **Demanding a villain before calling it injustice.** Structural injustice needs none.
- **Thinking good intent defeats disparate impact.** Griggs: consequences, not motives.
- **"The statistic is accurate, so it's fair."** Accuracy does not settle the moral question.
- **Using the IAT to diagnose a person.** Its creators say it is not diagnostic for individuals.
- **Calling health gaps just poverty.** Whitehall's gradient ran through employed, insured civil servants.
- **"I treat everyone the same."** The instrument may not tell the same truth about everyone.
- **Confusing guilt with responsibility.** Responsibility follows participation, scaled by power.

Chapter 11 self-test · ten items

1. Anderson's relational equality says the point of equality is what?

A. To equalize everyone's share of income, wealth and resources

B. To end social hierarchy so no one stands below another

C. To compensate people only for their brute bad luck

D. To guarantee identical outcomes for groups

B. To end social hierarchy so no one stands below another She targeted domination and exclusion rather than the shape of a distribution.

2. What did Griggs v. Duke Power (1971) hold?

A. Only intentional discrimination is unlawful under Title VII
B. Aptitude tests are always lawful if given to every applicant
C. Neutral practices with disparate impact must be job-related
D. Employers may set any diploma rule

C. Neutral practices with disparate impact must be job-related Practices fair in form but discriminatory in operation are barred without a demonstrable job link.

3. Ricci v. DeStefano (2009) held that an employer may discard test results for racial reasons only when?

A. It has a strong basis in evidence of impact liability
B. Any racial group fails to have a single member promoted
C. A firefighters' union formally requests it in writing
D. The test is older than ten years

A. It has a strong basis in evidence of impact liability It set the two halves of antidiscrimination law against each other.

4. Hellman's account says discrimination is wrong because it does what?

A. Always causes measurable financial harm
B. Forces traits into a person's planning
C. Breaks a contract between parties
D. Expresses that a person has lesser worth

D. Expresses that a person has lesser worth This explains the refused couple even when the harm is trivial.

5. What did the 2013 and 2019 meta-analyses show about the IAT?

A. It predicts individual behavior only weakly
B. It perfectly predicts hiring decisions
C. It proves bias does not exist
D. It measures conscious attitudes directly

A. It predicts individual behavior only weakly Discrimination itself is shown more strongly by field experiments.

6. In Whitehall I, what pattern did coronary mortality follow?

A. A cliff only at the poorest grade
B. Highest among top administrators
C. No difference across grades
D. A stepwise gradient at every grade

D. A stepwise gradient at every grade Nobody in the study was poor, which ruled out a deprivation threshold.

7. The CDC's 2021 maternal mortality rates were 69.9 for Black and 26.6 for white women. About what ratio is that?

A. 1.5 to 1
B. 2.6 to 1
C. 4.0 to 1
D. 2.0 to 1

B. 2.6 to 1 69.9 ÷ 26.6 = 2.63.

8. How did pulse oximeters come to mislead clinicians differentially?

A. The software contained an explicit variable for the patient's race
B. Nurses read the devices incorrectly on darker-skinned patients
C. Melanin absorbs the light used and calibration skewed light-skinned
D. The devices were never tested on anyone

C. Melanin absorbs the light used and calibration skewed light-skinned Occult hypoxemia was about three times as frequent in Black patients.

9. What did Students for Fair Admissions v. Harvard (2023) leave open?

A. Racial quotas for admission to medical schools
B. Essays about how race shaped an applicant's life
C. Fixed point bonuses for race in undergraduate admissions
D. Race as a tie-breaker at state universities

B. Essays about how race shaped an applicant's life Universities may not use the essay as a proxy for the classification.

10. What did Dobbin and Kalev find about mandatory diversity training?

A. It was associated with declines in managerial diversity
B. It was the most effective tool in the whole study
C. It had no measurable association with diversity at all
D. It worked only when paired with hiring tests

A. It was associated with declines in managerial diversity Mentoring, recruitment and manager accountability were linked to gains.

Environmental and Animal Ethics

Read it in full: **Chapter 12 in the textbook**. Practice it in the lab: **The Moral Circle Bench** and **The Discount Dial and the Blame Ledger**.

What to know

Moral status means being the kind of thing that can be wronged, not merely damaged. **Moral agents** can be blamed; **moral patients** can be wronged but not blamed (infants, people with advanced dementia). Aristotle and Aquinas ranked nature; Descartes (1630s) called animals machines. Kant allowed only **indirect duties** regarding animals: cruelty coarsens us. Korsgaard (Fellow Creatures, 2018) argues Kant's framework supports direct duties.

Bentham (1789): the question is not "can they reason?" but "can they suffer?" Singer (Animal Liberation, 1975): **equal consideration of interests**; Ryder (1970) named **speciesism**, a charge with a precise structure. The **argument from marginal cases**: any capacity used to exclude animals also excludes some humans. Carl Cohen (1986) appeals to belonging to a rational kind. Regan (1983): a **subject-of-a-life** has inherent value, ruling out even beneficial experiments, where Singer's view could allow them.

Science and law: the Cambridge Declaration (July 2012), the New York Declaration (April 2024), TFEU Article 13 (December 2009), the UK Animal Welfare (Sentience) Act 2022 covering cephalopods and decapods after Birch's review. Sentience is not intelligence.

Beyond sentience: **biocentrism** (Taylor, 1986: every organism a teleological center of life); **ecocentrism** (Leopold's land ethic, 1949: integrity, stability, beauty of the biotic community; Naess's deep ecology, 1973). Regan called holism "environmental fascism"; Callicott says it layers on individual duties. **Ecofeminism** (Warren, Plumwood 1993) targets value dualisms.

Laboratories: the **Three Rs** (Russell and Burch, 1959): **replacement, reduction, refinement**. They improve research but do not ask whether it should happen. The US Animal Welfare Act (1966); Silver Spring (1981) and Penn Head Injury Clinic (1984); the 1985 amendments created the **IACUC**. The 2002 Farm Bill excludes purpose-bred rats, mice and birds (over nine in ten lab animals). EU Directive 2010/63/EU requires harm-benefit analysis; cosmetics testing banned

2009, marketing 2013. FDA Modernization Act 2.0 (December 2022) permits but does not require alternatives. About nine in ten drugs passing animal tests fail in humans.

Farms: about 80 billion land animals slaughtered a year worldwide, mostly chickens; nearly 10 billion in the US. Battery cages give a hen less than a sheet of letter paper; the EU banned them from January 2012 and limited gestation crates to the first four weeks from 2013. US change came by ballot (Prop 2, 2008; Massachusetts Question 3, 2016; Prop 12, 2018), upheld in **National Pork Producers Council v. Ross** (May 2023). Broilers reach about 2.5 kg in about six weeks; Zuidhof (2014) found modern birds more than four times larger by day 56. About two-thirds of medically important antibiotics go to food animals; the Humane Methods of Slaughter Act excludes poultry by USDA interpretation. **Welfarists** (Singer) vs **abolitionists** (Francione); conscientious omnivorism; cultured meat (Singapore 2020; US 2022 to 2023; Florida ban 2024). Animal products give about 18% of calories.

Climate science: Foote (1856), Tyndall (1859), Arrhenius (1896: 5 to 6°C for doubling; modern estimate near 3). Keeling at Mauna Loa from March 1958 (about 315 ppm; now over 420; pre-industrial about 280). IPCC AR6 (Synthesis March 2023): about 1.1°C warming in 2011 to 2020. 2024 was the first calendar year above 1.5°C. The 2003 European heat wave: about 70,000 excess deaths.

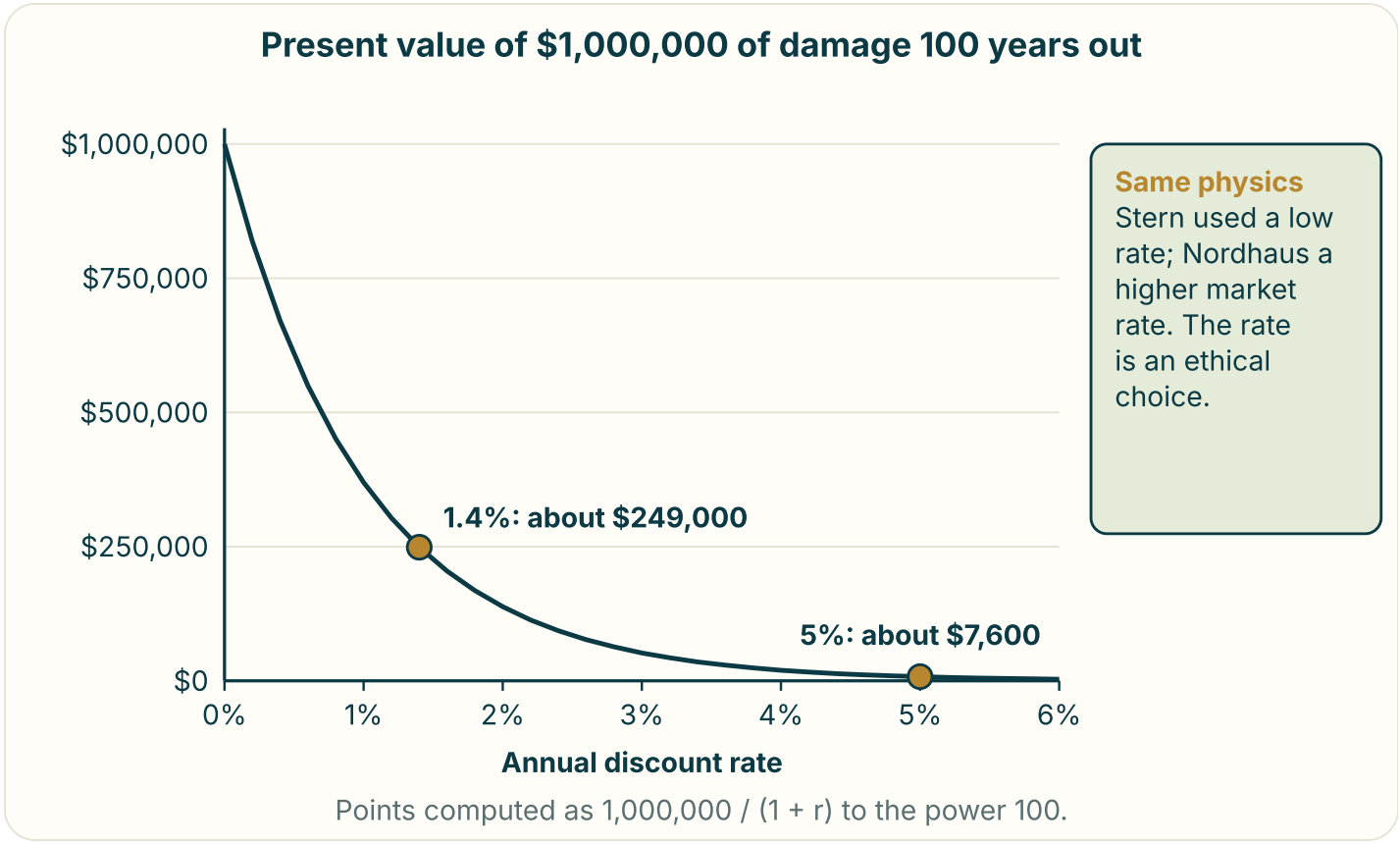
Burden sharing. UNFCCC (1992): **common but differentiated responsibilities and respective capabilities**. US about a quarter of cumulative CO2; China about 30% of current annual; per-capita rankings differ again. Paris (12 December 2015): well below 2°C, pursue 1.5°C, nationally determined contributions. Loss and damage fund (COP27, 2022; COP28, 2023). ICJ advisory opinion (2025). Montreal Protocol (1987) worked; Kigali (2016). Principles: polluter pays, ability to pay, beneficiary pays, equal per capita, grandfathering.

Four puzzles. The **non-identity problem** (Parfit, 1984). The **discount rate**: at 5%, $1 million in a century is worth under $8,000; at 1.4%, about $250,000 (Stern 2006 vs Nordhaus). The **commons**: Hardin (1968) versus Ostrom (1990; Nobel 2009) and her design principles. The **individual**: Sinnott-Armstrong (2005) vs Broome (2012) and Kagan. Courts: Urgenda (December 2019), Neubauer (March 2021), Held v. Montana (2023, affirmed 2024), the European Court of Human Rights (April 2024).

Environmental justice: Warren County (1982; over 500 arrested); GAO (1983); UCC's Toxic Wastes and Race (1987); Bullard (1990); EO 12898 (1994). Three dimensions: **distributive, procedural, recognition**. **Alexander v. Sandoval** (2001) bars private disparate-impact suits under Title VI. Bhopal (1984; about 40 tonnes MIC; $470 million settlement), Flint (25 April 2014; Hanna-Attisha, 24 September 2015), the Louisiana corridor (about 200 facilities). Air pollution: about 8.1 million deaths in 2021. No safe blood lead level (CDC reference 3.5 µg/dL, 2021). Precautionary principle (Rio Principle 15, 1992; Wingspread 1998). Rights of nature (Stone 1972; Ecuador 2008; Whanganui 2017). Tools: CBA, social cost of carbon (about $51 to about $190), VSL ($11 to $13 million), planetary boundaries (six of nine transgressed, 2023), LCA. Health care: about 4.4% of global emissions; US about 8.5%; desflurane about 20 times sevoflurane; inhalers about 3% of the NHS footprint; avoid low-value care.

LOCK THESE IN

- Moral status is being wronged, not merely damaged; patients need not be agents.
- Sentience (Bentham, Singer), subject-of-a-life (Regan), life (Taylor), the whole (Leopold).
- Argument from marginal cases: exclusionary capacities also exclude some humans.
- Three Rs: replacement, reduction, refinement; they never ask whether.
- US law leaves out purpose-bred rats, mice and birds, and poultry slaughter.
- Non-identity, discount rate, commons, the individual: four climate puzzles.
- Environmental justice: distributive, procedural, recognition; impact is not intent.
- Every decision tool hides something; find the big lever (desflurane, low-value care).



A rate is a value judgment. At 1.4 percent a century-away million is still worth about a quarter of a million today; at 5 percent it is worth under eight thousand. That single choice can decide whether strong climate action passes cost-benefit.

Who counts: five positions

Position	Criterion	Objection
Anthropocentrism	Rationality, moral community	Only indirect duties to animals
Sentientism	Felt experience	Cannot value plants or ecosystems directly
Biocentrism	A good of one's own	Egalitarian versions unlivable
Ecocentrism	Integrity of the biotic community	May sacrifice individuals
Ecofeminism	Reject value dualisms	Diagnosis outpaces guidance

Key terms and comparisons

Item	Meaning	Note
Speciesism	Discounting interests for species alone	Ryder, 1970
Welfarist vs abolitionist	Reduce suffering vs end property status	Singer vs Francione
Polluter pays	Responsibility tracks emissions	Many past emitters are dead
Beneficiary pays	Those enriched by past emissions owe	Benefits diffuse
Non-identity problem	Policy changes who is born	Parfit, 1984
Discount rate	Shrinks future values	Ethical, not technical
Ostrom's principles	Boundaries, participation, monitoring, sanctions	Commons can work
Precautionary principle	Act before full certainty	Shift burden to the risk creator
Life-cycle assessment	Impacts from cradle to grave	Depends on boundaries and energy mix
Rights of nature	Ecosystems with legal standing	Ecuador 2008; Whanganui 2017

Worked cases

WORKED CASE 1 · DISCOUNTING A CLIMATE HARM

A policy would prevent $1,000,000 of damage 100 years from now. What is that worth today at 5% and at 1.4%, and what does the gap show?

STEP 1 · FORMULA

Present value = 1,000,000 ÷ (1 + r) to the power 100.

STEP 2 · AT 5%

1.05 to the 100th is about 131.5, so PV is about **$7,600**.

STEP 3 · AT 1.4%

1.014 to the 100th is about 4.02, so PV is about **$249,000**.

STEP 4 · THE GAP

About 33 times larger at the lower rate. Stern and Nordhaus disagreed about this ethical choice, not the physics.

WORKED CASE 2 · APPLYING THE THREE RS

A team proposes testing a new topical antiseptic for eye irritation in rabbits. Apply the Three Rs.

STEP 1 · REPLACEMENT

Reconstructed human cornea models and computational screens have largely displaced the Draize test; evaluate them first.

STEP 2 · REDUCTION

If animal work survives, justify the sample size statistically, not by habit.

STEP 3 · REFINEMENT

Anesthesia, analgesia, humane endpoints, enrichment.

STEP 4 · THE MISSING QUESTION

The Three Rs never ask whether the product justifies animal use at all. EU law adds a harm-benefit analysis for that.

WORKED CASE 3 · THREE DIMENSIONS OF INJUSTICE IN FLINT

Sort the Flint water crisis into distributive, procedural and recognition injustice.

STEP 1 · DISTRIBUTIVE

A majority-Black city with high poverty absorbed lead exposure and a deadly Legionnaires outbreak.

STEP 2 · PROCEDURAL

The switch was made under state emergency management that displaced elected local government.

STEP 3 · RECOGNITION

Residents' reports were dismissed for eighteen months until an engineer and a pediatrician produced data officials accepted.

STEP 4 · THE LEGAL SNAG

Proof of intent is rare, and Sandoval blocks private disparate-impact suits under Title VI.

WORKED CASE 4 · FINDING THE BIG LEVER

A hospital committee wants a break-room recycling drive as its flagship climate action. Respond.

STEP 1 · RANK IMPACT

Removing desflurane (about 20 times sevoflurane's warming potential) and fixing nitrous oxide leaks are very high impact with negligible risk.

STEP 2 · ADD CLINICAL LEVERS

Reduce low-value tests and imaging; switch suitable patients to dry powder inhalers after an inspiratory flow check.

STEP 3 · PLACE RECYCLING

Worth doing, but low impact and a poor proxy for seriousness.

STEP 4 · THE CONVERGENCE

Avoiding low-value care helps patients, budgets and the climate at once.

TRAPS PEOPLE FALL INTO

- **Confusing sentience with intelligence.** The question is whether it can suffer.
- **Treating speciesism as an insult.** It is a charge with a precise structure.
- **Thinking all US lab animals are covered.** The AWA excludes purpose-bred rats, mice and birds.
- **Treating the Three Rs as a full ethic.** They improve research; they do not ask whether.
- **Calling the discount rate technical.** It decides how much future people count.
- **Repeating Hardin without Ostrom.** Commons can be governed; Hardin's wider views also need context.
- **Demanding proof of intent.** Environmental justice evidence documents impact.
- **Leading with recycling.** Anesthetic gases and low-value care are bigger levers.

Chapter 12 self-test · ten items

1. Kant's view that cruelty to animals is wrong because it coarsens human character gives what?

A. Direct duties owed to the animals themselves
B. No duties of any kind at all regarding animals
C. Duties based on animal rights
D. Indirect duties regarding animals

D. Indirect duties regarding animals Critics say it gets the verdict right for the wrong reason.

2. What does the argument from marginal cases claim?

A. Animals are far smarter than most people tend to think
B. Only marginal and low-risk research on animals is allowed
C. Capacities used to exclude animals also exclude some humans
D. Humans with disabilities lack moral status

C. Capacities used to exclude animals also exclude some humans Either the capacity is not the ground of status or it is applied inconsistently.

3. How do Singer and Regan differ on a painful experiment with huge benefits?

A. Both views would always forbid it, whatever the benefit
B. Both views would always allow it if the benefit is large
C. Regan's view could allow it; Singer's cannot
D. Singer's view could allow it; Regan's rights view cannot

D. Singer's view could allow it; Regan's rights view cannot Regan's subject-of-a-life has inherent value not tradable for aggregate gain.

4. Which is NOT one of the Three Rs?

A. Regulation
B. Replacement
C. Reduction
D. Refinement

A. Regulation Russell and Burch's 1959 framework: replace, reduce, refine.

5. What did National Pork Producers Council v. Ross (2023) decide?

A. Federal law now bans gestation crates in every state
B. States may never regulate how out-of-state farms operate
C. California may bar sales of pork from confined sows
D. Proposition 12 violated the Commerce Clause

C. California may bar sales of pork from confined sows It confirmed a large market state can project welfare standards.

6. At a 5% discount rate, $1,000,000 of damage in 100 years is worth roughly what today?

A. About $250,000
B. Under $8,000
C. About $500,000
D. About $50,000

B. Under $8,000 1,000,000 ÷ 1.05 to the 100th is about $7,600.

7. What did Elinor Ostrom's work show?

A. Users have governed some commons sustainably for centuries
B. All commons eventually collapse unless they are privatized
C. Only national governments can manage shared resources well
D. Hardin's model has no exceptions

A. Users have governed some commons sustainably for centuries Her design principles describe when commons work.

8. Who is associated with the land ethic?

A. Paul Taylor
B. Arne Naess
C. Aldo Leopold
D. Tom Regan

C. Aldo Leopold A Sand County Almanac (1949): integrity, stability and beauty of the biotic community.

9. Why does Alexander v. Sandoval (2001) matter for environmental justice?

A. It required proof of discriminatory intent in all siting cases
B. Private suits cannot rest on Title VI disparate-impact rules
C. It created the EPA's office for civil rights enforcement
D. It banned siting in minority communities

B. Private suits cannot rest on Title VI disparate-impact rules Litigation shifts to permitting, nuisance and state constitutional law.

10. Which hospital action has the largest climate impact at negligible clinical risk?

A. Recycling in staff break rooms
B. Printing fewer meeting agendas
C. Switching to paper straws in the cafeteria
D. Removing desflurane from the formulary

D. Removing desflurane from the formulary Desflurane's warming potential is roughly twenty times sevoflurane's.

Cram sheet

Everything from chapters 11 and 12 in one place. Cover the right column and see if you can rebuild each row.

Cases, laws and dates

Item	Year	Point
HOLC maps; FHA manual	1935 to 1940; 1936, 1938	Redlining in 239 cities
Fair Housing Act	1968	Practice stopped; distribution stayed
Griggs v. Duke Power	1971	Disparate impact; job-relatedness
Civil Rights Act	1991	Codified impact burden-shifting
Ricci v. DeStefano	2009	Strong basis in evidence
SFFA v. Harvard	29 June 2023	Race-conscious admissions ended
Three Rs	1959	Russell and Burch
IACUC	1985	Local animal research review
UNFCCC; Paris	1992; 2015	CBDR; well below 2°C, pursue 1.5°C
Warren County	1982	Birth of environmental justice
Alexander v. Sandoval	2001	No private Title VI impact suits
NPPC v. Ross	2023	Prop 12 upheld

Numbers to know

Item	Value
Median net worth 2022	White about $285,000; Hispanic $61,600; Black $44,900
Callbacks	9.65% vs 6.45% (50% more)
Maternal mortality 2021	69.9 vs 26.6 per 100,000 (about 2.6 to 1)
Occult hypoxemia	11.7% vs 3.6%
Cost-proxy fix	17.7% to 46.5% Black enrollment
Land animals slaughtered	About 80 billion a year worldwide
CO2	About 280 ppm pre-industrial; 315 in 1958; over 420 now
Discounting $1M over 100 years	5%: about $7,600; 1.4%: about $249,000
Health care emissions	About 4.4% global; US about 8.5%

Rules of thumb

Topic	The rule
Equality	Name which of the five senses is in use.
Accuracy	A correct statistic can still wrong the person.
Instruments	Ask whether the tool was validated on people like your patient.
Three Rs	Good for how; silent on whether.
Green claims	Compared with what, over what boundary, verified by whom?

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