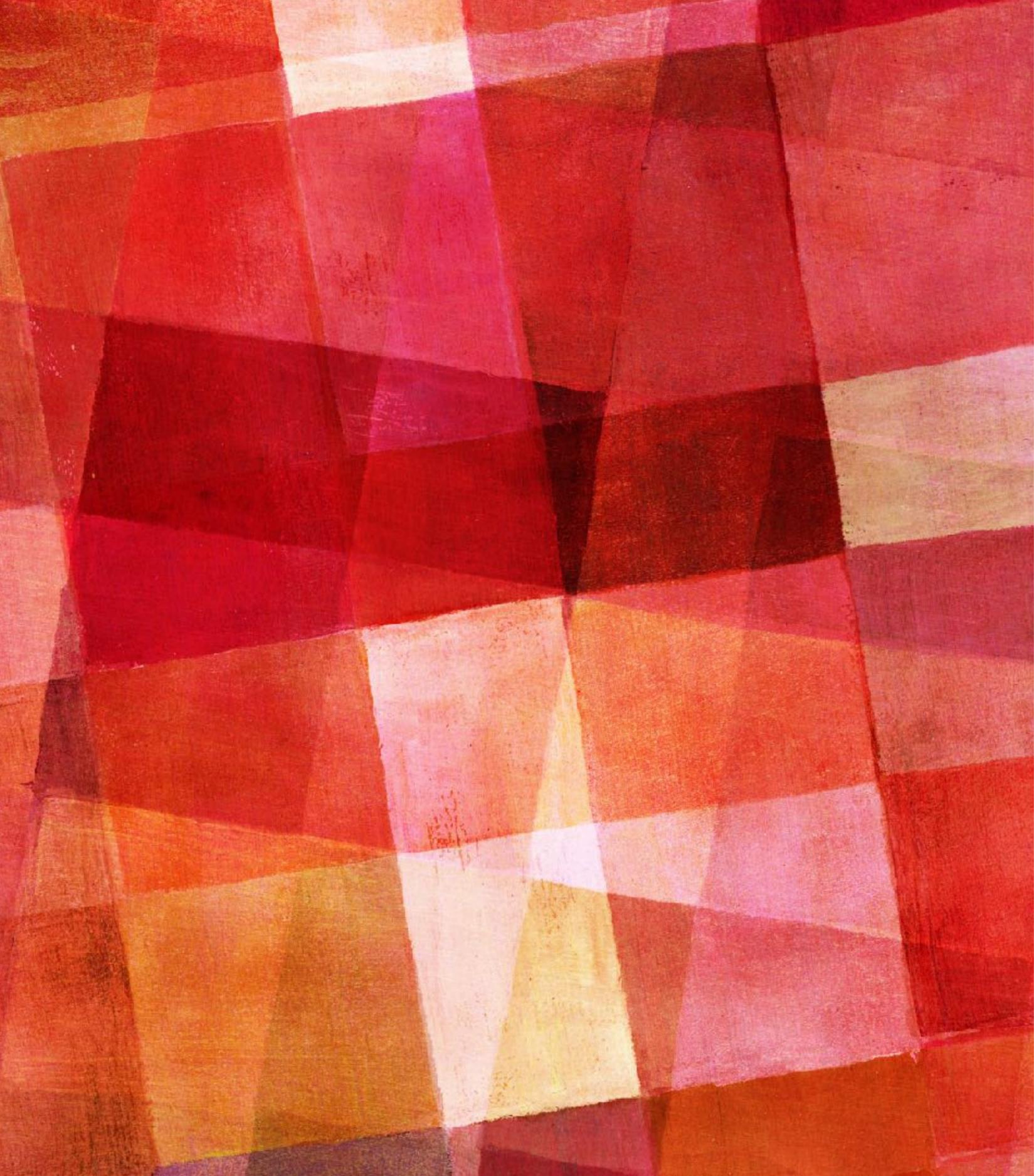


ETHICS IN SCIENCE AND TECHNOLOGY

Lecture II

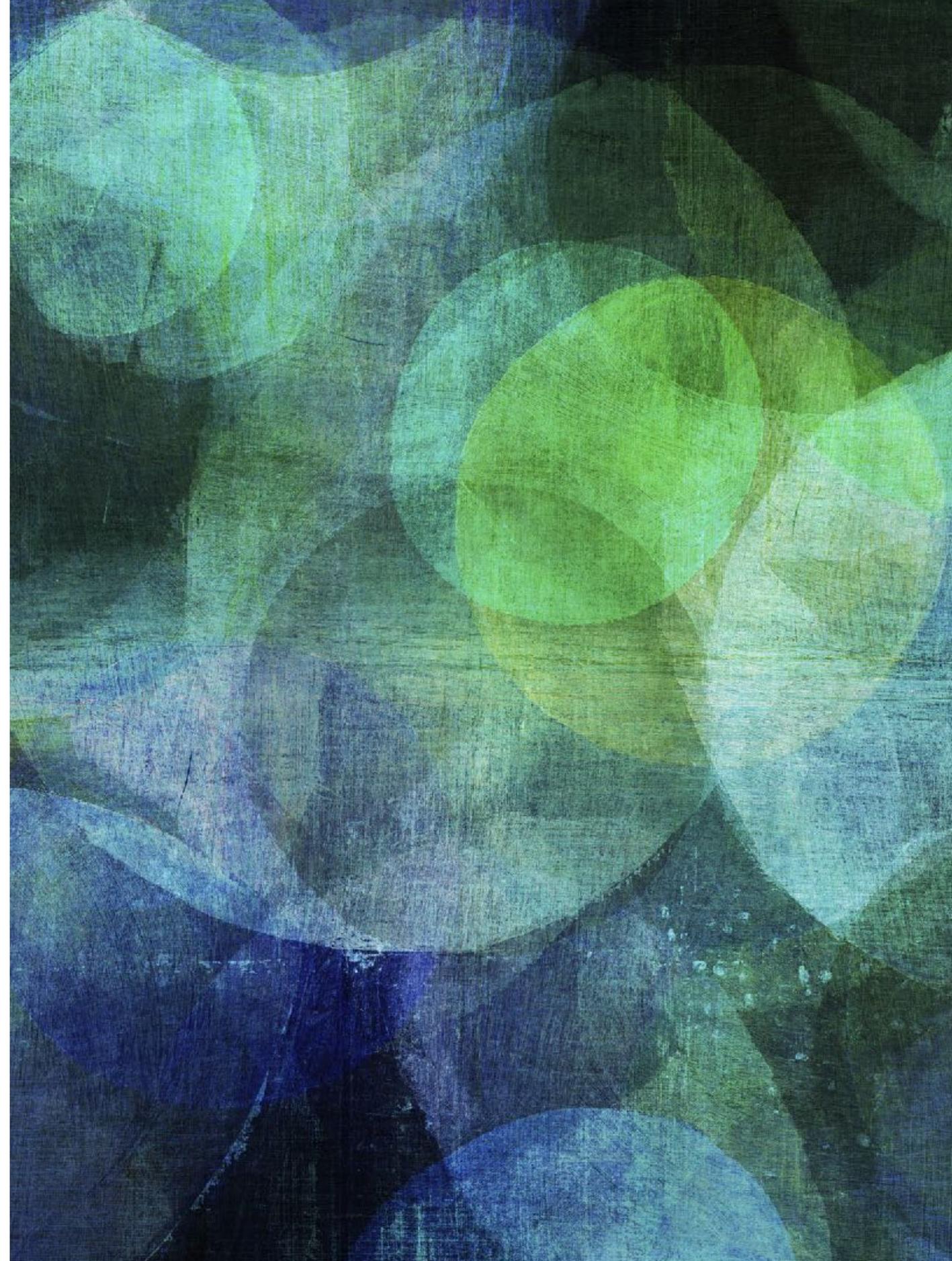


AGENDA

- Short feedback on your assignments (~5 min).
- Introduction to some central normative ethical theories (~40 min).
- Break (15 min).
- Group discussions about responsibility (45 min).

FEEDBACK ON YOUR REFLECTION ASSIGNMENTS

SHORT INTRODUCTION TO ETHICS





WHAT IS ETHICS?

- "We are constantly moralizing others".
 - *Gut feeling.*
- What if your gut feeling cannot always be trusted? Ethics.
- Ethics is the philosophy of morals: of what's right and wrong, good and bad, and so on.
 - Studied by philosophers, practiced by everyone: researchers, doctors and nurses, engineers, etc.

GUT FEELING

- A man goes to the supermarket once a week and buys a dead chicken. But before cooking the chicken, he has sexual intercourse with it. Then he thoroughly cooks it and eats it.
- A family dog was killed by a car in front of the house. The family had heard that dog meat was delicious and cut up, cooked, and ate the dog for dinner.

This evokes feelings of disgust, perhaps enough to condemn the persons ethically. However, when we think critically we must discuss and analyse even things such as cannibalism, sex with dead chickens, or eating your run-over dog. The very strong gut feeling is not enough. But the gut feeling can help us identify that something we care deeply about is at stake.

ETHICS IN PRACTICE

1. Awareness

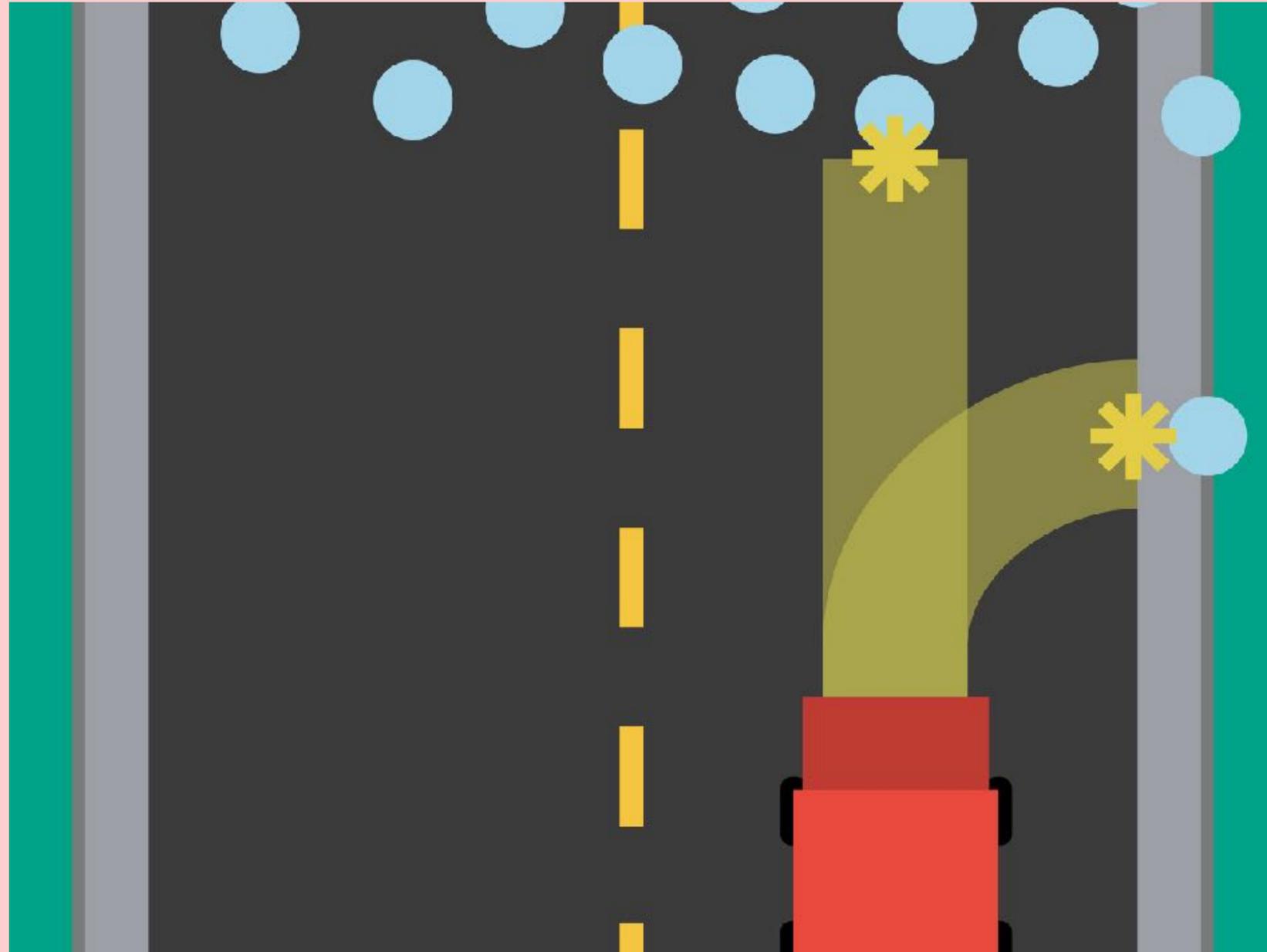
2. Responsibility

3. Critical thinking

4. Action

(5. Reflection)

ETHICAL DILEMMAS



Self-Driving Mercedes Will Be Programmed To Sacrifice Pedestrians To Save The Driver



Mercedes gets around the moral issues of self-driving cars by deciding that—of course—drivers are more important than anyone else.



When they crash, self-driving Mercedes will be programmed to save the driver, and not the person or people they hit. That's the design decision behind the Mercedes Benz's future Level 4 and Level 5 autonomous cars, according to the company's manager of driverless car safety, Christoph von Hugo. Instead of worrying about troublesome details like ethics, Mercedes will just program its cars to save the driver and the car's occupants, in every situation.

PROFESSIONAL ETHICS AND ETHICAL GUIDELINES

- "With great power comes great responsibility."
- Some professions come with greater responsibility of ethical reasoning than others. Why?
- Codes of Conducts (CoC) and Code of Ethics.
- Professional ethics in conflict with other values (examples from Swedish Engineers' Code of Honor):
 - "Engineers in their professional capacity ought to feel personally responsible for technology being used in a manner that benefits humanity, the environment and society."
 - "Engineers ought to show complete loyalty to employers and colleagues. Difficulties in this respect ought to be raised in open discussions, in the first instance at the workplace."

(SOME) NORMATIVE ETHICAL THEORIES

- Deontological theories
- Virtue ethics
- Consequentialist theories
- Relational ethics/Ethics of care





DEONTOLOGICAL THEORIES

- Focus on the inherent goodness or evil in actions (and largely disregards from consequences of such actions).
- CoC, the law, the ten commandments, the golden rule, etc.
- Kant and "duty ethics".
 - The hypothetical imperative: "*if... then...*" and the categorical imperative: *universalizable*.

FROM "GOOD RESEARCH PRACTICE"

- 1) You shall tell the truth about your research.
- 2) You shall consciously review and report the basic premises of your studies.
- 3) You shall openly account for your methods and results.
- 4) You shall openly account for your commercial interests and other associations.
- 5) You shall not make unauthorised use of the research results of others.
- 6) You shall keep your research organised, for example through documentation and filing.
- 7) You shall strive to conduct your research without doing harm to people, animals or the environment.
- 8) You shall be fair in your judgement of others' research.



PENGUIN  CLASSICS

PLATO
The Republic

VIRTUE ETHICS

- Focus on the personality traits, or virtues, that make persons act in a certain way.
- "Good actions flow from a good character, but simultaneously, good actions build a good character".
- Plato's republic – philosopher kings (*sophia*), police and military (*andreia*), and the people (*sophrosyne*).
- Aristotelian virtue ethics – Live according to virtues, and reach *eudaimonia* (fulfilment, happiness, and satisfaction).
 - The golden mean (e.g. foolhardiness – courage – cowardice).

ARE VIRTUES UNIVERSAL?

Some philosophers criticise virtue ethics as **culturally relative**. Since different people, cultures and societies often have different opinions on what constitutes a virtue, perhaps there is no one objectively right list.

[citation needed]

For example, regarding what are the most important virtues, Aristotle proposed the following nine: wisdom; prudence; justice; fortitude; courage; liberality; magnificence; magnanimity; temperance. In contrast, one modern-era philosopher proposed as the four cardinal virtues: ambition/humility; love; courage; and honesty.^[18]



CONSEQUENTIALIST THEORIES

- Focus on consequences rather than the inherent goodness/evil of the actions and/or subjects.
 - Consequences for me (*egoism*)?
Consequences for the Other (*altruism*)?
Consequences for everyone (*utilitarianism*)?
 - The greatest good for the greatest number.
- But what is utility?
 - "that property in any object, whereby it tends to produce benefit, advantage, pleasure, good, or happiness...[or] to prevent the happening of mischief, pain, evil, or unhappiness to the party whose interest is considered."

ARGUMENTS AGAINST UTILITARIANISM

The most common argument against act utilitarianism is that it gives the wrong answers to moral questions. Critics say that it permits various actions that everyone knows are morally wrong. The following cases are among the commonly cited examples:

- If a judge can prevent riots that will cause many deaths only by convicting an innocent person of a crime and imposing a severe punishment on that person, act utilitarianism implies that the judge should convict and punish the innocent person. (See [Rawls](#) and also [Punishment](#).)
- If a doctor can save five people from death by killing one healthy person and using that person's organs for life-saving transplants, then act utilitarianism implies that the doctor should kill the one person to save five.
- If a person makes a promise but breaking the promise will allow that person to perform an action that creates just slightly more well-being than keeping the promise will, then act utilitarianism implies that the promise should be broken. (See [Ross](#))

NOZICK'S PLEASURE MACHINE

The thought experiment [\[edit \]](#)

Nozick asks us to imagine a machine that could give us whatever desirable or pleasurable experiences we could want. Psychologists have figured out a way to stimulate a person's brain to induce pleasurable experiences that the subject could not distinguish from those he would have apart from the machine. He then asks, if given the choice, would we prefer the machine to real life?

Nozick also believes that if pleasure were the only intrinsic value, people would have an overriding reason to be hooked up to an "experience machine," which would produce favorable sensations.

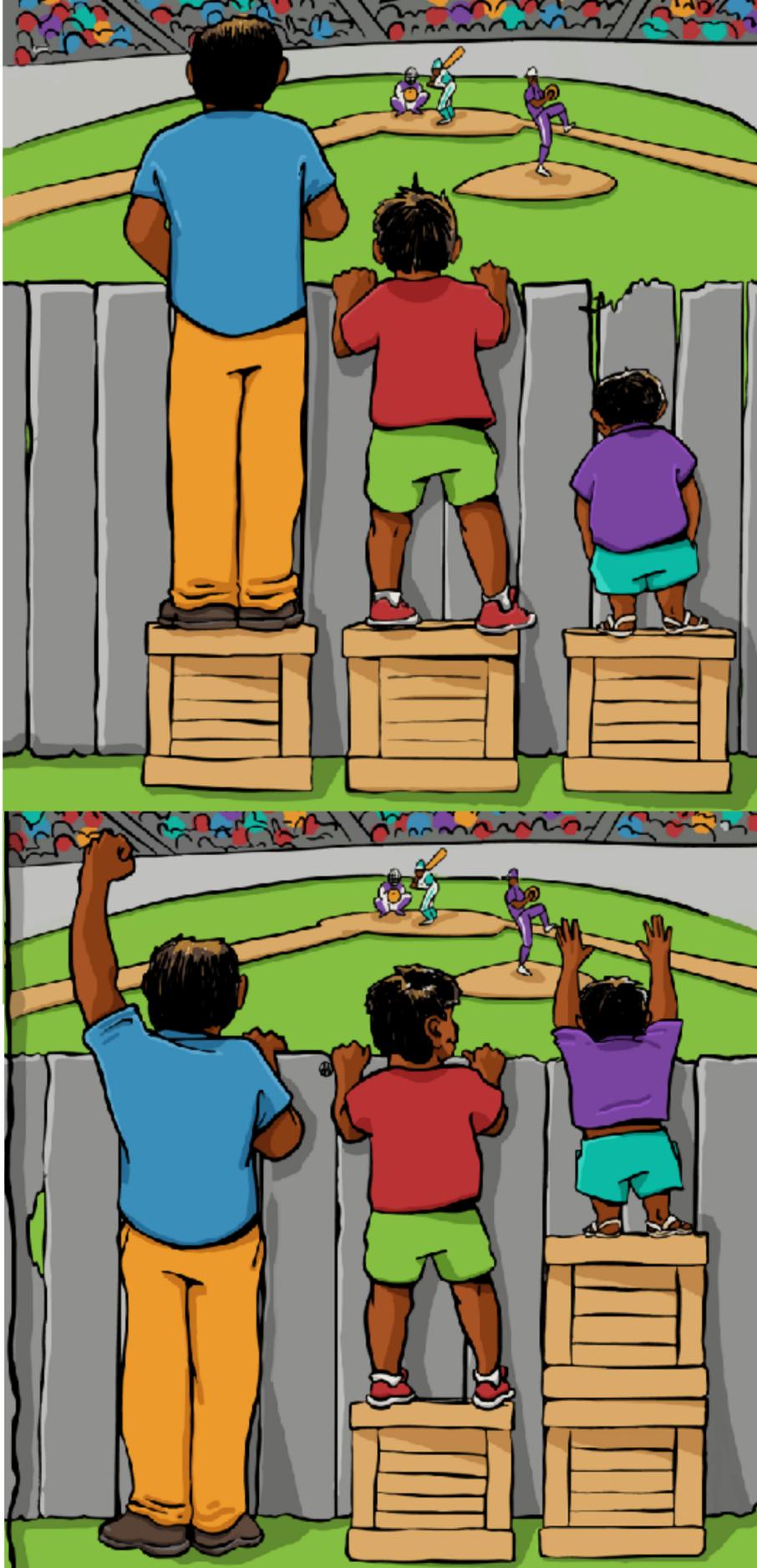


CARING

A Relational Approach to Ethics and Moral Education

RELATIONAL ETHICS/ETHICS OF CARE

- Critique of the focus on "abstract principles" of conventional theories, and focus on personal relationships.
- "Feminist ethics" – Critique of the focus on the "masculine" in conventional theories.
- As an ethical theory and as a practice.



JUSTICE AND FAIRNESS

- "Every individual should get what s/he deserves".
- "Individuals should be treated the same, unless they differ in ways that are relevant to the situation in which they are involved".
- Different types of justice:
 - Distributive justice.
 - Retributive justice.

CONCLUSIONS ETHICAL THEORIES

- All theories bring some kind of value or light to real and theoretical situations
 - Focus on the action itself, the virtues/values of the persons involved, the consequences of the actions (for different stakeholders), the relations between the stakeholders, etc.
- Certain theories are more relevant in certain situations... But...
 - No theory can give you the full answer of how to deal with all kinds of situations.

DISCUSSION ABOUT RESPONSIBILITY

- (1) Break until 11:15.
- (2) Breakout rooms – 4 rooms with 6(?) students in each room.
- (3) Discuss all questions (see next slide) if possible for about 25 minutes. Your group will have the main *responsibility* of one of the four questions.
- (4) Breakout rooms end. All questions discussed in full class.
- (5) Seminar ends at 12:00.

DISCUSSION ABOUT RESPONSIBILITY

- (1) What are the responsibilities of researchers in technology and natural sciences? — is it the same for other disciplines (e.g. social science, medicine, humanities?)*
- (2) Do we, as researchers, avoid responsibility by means of rationalizations or other forms of avoidance, and in that case how? — Can rationalisations be useful for ethical assessment, and if so, why/how?*
- (3) Should we, as researchers, try to take more responsibility, and in that case how and regarding what? — Where should we draw the line? What should we not feel responsible for?*
- (4) Bonus question: One could argue that it is our responsibility to only act according to the law and/or regulations. Do you agree? Why/Why not? What is the relation between ethics and the law/regulations.*