

Translation into English, published
under Open Access by
Linköping University Electronic Press

CTE / Studies in Applied Ethics No 23

Introduction to Ethics



Göran Collste

A student of ethics is like a captain on a ship who tries to navigate to find the right way through the storms of life.

CTE / Studies in Applied Ethics No 23

Introduction to Ethics

Göran Collste




Linköping University Electronic Press
Linköpings universitet, SE-581 83 Linköping, Sweden
Linköping 2026

This is a translation of parts of the book *Inledning till etiken*, Studentlitteratur (4th edition, 2019), ISBN: 9789144119533 into English. The Chapters Technology and Ethics and Research ethics are added. The translation is made by the author Göran Collste himself. The book has been reviewed in recurring seminar treatments.

Edition 1.0 Linköping University Electronic Press 2026,
Layout: Edvin Erdtman

© 2026 Göran Collste

 Except where otherwise noted, this work is licensed under a Creative Commons Attribution 4.0 International (CC BY) License. <https://creativecommons.org/licenses/by/4.0/>

ISBN: 978-91-8118-604-8 (PDF)

DOI: <https://doi.org/10.3384/9789181186048>

Cover: The Death of Socrates by Jacques-Louis David, Public domain, taken from https://commons.wikimedia.org/wiki/File:David_-_The_Death_of_Socrates.jpg

Contents

CONTENTS.....	5
PREFACE.....	7
CHAPTER 1. WHAT ARE MORALS AND ETHICS?	9
THE BASIS OF MORALITY.....	9
MORALITY AS THE GLUE OF SOCIETY	11
BASIC MORAL QUESTIONS	11
MORAL CONCEPTS.....	12
THE FIELDS OF ETHICS.....	12
IS ETHICS RELATIVE?.....	14
MORAL ARGUMENTATION.....	15
AN ETHICAL DECISION MODEL	16
<i>Decision model in ethics</i>	17
<i>Practice</i>	18
ARE RATIONAL MORAL DECISIONS POSSIBLE?	18
CHAPTER 2. NORMATIVE ETHICS.....	19
THE NEED FOR NORMATIVE CRITERIA	19
CONSEQUENTIALISM	20
<i>Ethical egoism</i>	20
<i>Ethical perfectionism</i>	21
<i>Ethical particularism</i>	22
<i>Ethical universalism: Utilitarianism</i>	22
<i>Objections to utilitarianism</i>	24
<i>Marxist consequentialism</i>	27
DEONTOLOGICAL THEORIES	28
<i>Kant's duty ethics</i>	28
<i>Specification and prima facie duties</i>	29
<i>Contract theory and justice</i>	30
<i>Theories of rights</i>	32
COMMUNITARIANISM	34
VIRTUE ETHICS	35
FEMINIST ETHICS	36
CHAPTER 3. APPLIED AND PROFESSIONAL ETHICS	38
APPLIED ETHICS	39
<i>When and why did applied ethics appear?</i>	40
PROFESSIONAL ETHICS	44
<i>Professional ethics as virtue ethics</i>	46
CONCLUSION	47
CHAPTER 4. TECHNOLOGY AND ETHICS.....	49
SOCIAL CONSTRUCTIVISM AND ASSESSMENT OF EMERGENT TECHNOLOGIES	49
AMBIENT COMPUTING FOR PERSONAL HEALTH MONITORING.....	52
<i>In the home</i>	52
<i>In the clinic – medical connectivity</i>	53
<i>What are the benefits?</i>	53
<i>Ethical questions</i>	54
<i>Ethical assessment of emerging technologies</i>	55

<i>Ethical issues in research on personal health monitoring</i>	56
A PARADOX: FROM VISIBILITY TO DISAPPEARANCE	57
CONCLUSION	57
CHAPTER 5. RESEARCH ETHICS	59
RESEARCH AND RESEARCH ETHICS	59
IDENTIFYING RESEARCH ETHICS	59
CODES AND GUIDELINES.....	60
<i>Do we need ethics – is not the law enough?</i>	60
RESEARCH ON HUMAN BEINGS	60
<i>Universal declarations of research ethics</i>	60
<i>Universal moral values for research</i>	61
<i>The application of principles</i>	61
<i>Ethical boards</i>	62
RESEARCH INTEGRITY AND SCIENTIFIC MISCONDUCT.....	62
<i>Scientific misconduct and scientific fraud</i>	63
<i>Norms for good research practice</i>	64
<i>Why is scientific misconduct a problem?</i>	65
<i>Investigating scientific misconduct</i>	66
<i>How common is scientific misconduct?</i>	66
<i>Explanation of scientific misconduct</i>	66
REFERENCES	68
ETHICAL CODES.....	70

Preface

Ethics is a universal subject. Mankind have faced moral problems in all ages and in all cultures. Ethics is the reflection on moral problems. Ethics is an old discipline. Examples of important teachers of ethics are the Chinese philosopher Confucius and the Greek philosopher Socrates, both living in the 5th century B.C. Socrates took ethics seriously: “*we are discussing no small matter, but how to live*” he is said to have remarked and he lived himself accordingly. His teaching challenged the leaders of Athens to the extent that they condemned him to death. We can learn from Socrates that ethics requires both theoretical reflection and personal commitment.

Ethics has become a subject in demand in recent years. There is today in the West a wide public interest in ethics but also widespread uncertainty. Religion used to provide people with an ethical framework, but due to secularisation and modernity, religion has lost much of its influence. There is in a modern, plural society no given answer to ethical challenges. However, the challenges remain. Let me give some examples:

In health care, the possibilities to save human lives both in the beginning and in the end of life; the neonatal baby born much too early, as well as the very old person with a severe disease, give rise to difficult ethical decisions; who should we save and who should we let die?

Computerisation and information technology face us with new ethical challenges; how to secure privacy in the Information society?

Environmental problems compel us to re-examine our scale of values; how to balance environmental concerns and economic growth?

These are just some examples of moral problems raised in the modern society. When we reflect on moral problems, we find that ethical arguments rest on various preconditions. Ethics raises questions about what a good human life is and to our relationship to other people, animals and nature.

We live in an age of globalisation. People travel to different places, news media reports from all over the world, migrants cross borders and companies are multi-national; overall, globalisation implies that our range of responsibility is widened. Thus, globalisation poses a challenge for ethics, and we need more knowledge about values and norms in different parts of the world. This book refers to different moral traditions and compares different ethical outlooks, although the author’s own European heritage puts limits to this ambition.

The book is outlined in the following way. The aim of the introductory chapter is to identify the significance of morality and ethics for the individual and for his or her place in society. The chapter also addresses the conditions for rational ethical argumentation and the characteristics of a well-reasoned moral decision.

What characterises a right moral decision, a good person and a just society? Different normative ethical theories present answers to these questions, and they are introduced and discussed in the second chapter.

The third chapter presents questions in applied and professional ethics. During the last decades, one can witness a remarkable interest in applied ethics, both in the society and in the academy. In parallel, professionals reflect on moral problems in their professional lives and professional organizations formulate ethical codes.

Technology transforms society, for both good and bad. How can technology be assessed from an ethical point of view? This question is discussed in the fourth chapter and emergent information technologies used in home care is used as a case in point.

The aim of research is to increase our knowledge and contribute to human and social development. These important research goals are threatened by research misconduct. In

chapter five, the meaning and implications of research misconduct are discussed. The same chapter also deals with the ethical questions related to research involving human beings.

At the end of the book, the reader finds some ethical codes for professionals, for technological research and for research integrity.

It may be that the reader - like the author - thinks that lines of reasoning are not pursued to their conclusion and that viewpoints are not sufficiently analysed in this book. Remember then that this is an introduction to ethics. My hope is that the reader will be inspired to go further and immerse him/herself in this extensive and engrossing subject.

Stockholm 2026
Göran Collste

Chapter 1. What are morals and ethics?

The human test subjects were taken up to 8 kms altitude while being supplied with oxygen and were there ordered to execute 5 knee-bends with or without oxygen. After a certain time, moderate or severe altitude sickness set in and the test subjects lost consciousness. However, after a certain period of habituation at 8 kms altitude all test subjects regained consciousness and full mobility. Only extended trials at heights over 10.5 kms led to death. On these trials it was revealed that breathing ceased after ca 30 minutes, while in two cases the electrocardiographically registered cardiac activity continued for 20 minutes after respiration terminated.

The third trial of this nature proceeded so unusually that, as I conducted these tests alone, I called in an SS-doctor from the camp as witness. It concerned an extended trial without oxygen at 12 kms altitude with a 37-year-old Jew in good general condition. Breathing was maintained up to 30 minutes. At four minutes the test subject began to perspire and could not hold his head still.

After five minutes cramp attacks commenced, between 6- and 10-minutes breathing became faster and the test subject lost consciousness, from 11 to 30 minutes breathing grew progressively slower, down to three breaths a minute, to then cease entirely.

At times severe cyanosis occurred with foaming at the mouth.

At five-minute intervals electrocardiogram readings were taken with three leads and such were then recorded continuously after the cessation of breathing until all cardiac activity had terminated completely. In conjunction with this, that is roughly half an hour after breathing ceased, dissection began.

(From a report from Dr Sigmund Rascher to Heinrich Himmler on 5 April 1942 on experiments with a low-pressure chamber in Dachau concentration camp)

The basis of morality

Sigmund Rascher's letter reports on one of many hideous experiments on human beings in Nazi Germany. At another place, far away but about the same time, similar things happened. In Pingfang, near Harbin in Northern China the Japanese Unit 731 under command of General Shiro Iishi, undertook lethal experiments on human beings. The experiments included tests with airtight chambers, similar to the one reported by Rascher, amputations of body parts that were reconnected to the body on living persons, vivisections on persons for training newly employed army surgeons, infecting people with various diseases etc.

One can adopt various viewpoints on the events recorded in Rascher's letter to Himmler. From one aspect, it can be perceived as an experiment carried out according to the rules and methods applicable to scientific experiments. Rascher observes, makes notes, compares and even calls in a second doctor as witness when he finds the outcome particularly interesting. From this viewpoint, it could as easily be an atom or a plant under study.

From another perspective - the moral - other aspects are important. In the foreground stands that human beings are being tortured, suffer and die. A unique human quality is that we can identify with other living beings. We know what it is to experience happiness and we know what suffering entails. Thus, we can also understand when other people experience happiness and suffering. However, events like the experiments on human beings in Nazi Germany and Japanese camps in China also show that this human quality can be blunted and Rascher's letter reporting his experiment is an illustrative example of that.

The ability to identify with other persons is an important starting point for morality. A morally conscious person cannot behave indifferently and passively when human beings are exposed to suffering. Empathy and sympathy are basic human capacities. There is a spontaneous and tacit urge in us to intervene when we meet suffering. A blunting of moral sensibilities or cold-heartedness implies that a person lacks the ability to see and judge events from a moral perspective. When this ability is entirely blunted, we are dealing with a psychopath.

A person does not live her life in a moral vacuum. By her very existence, she is in morally relevant relationships. We humans are dependent on each other and on the natural world around us. Our actions - or our failure to act – affect in various ways our surroundings; we can be of harm or of use. The task of morality is to guide our actions so that we can take responsibility for our way of living.

In the book *Humanity: A Moral History of the Twentieth Century*, philosopher Jonathan Glover reflects on what happened during the 20th century from a moral perspective. He describes the horrendous events – oppression, war and genocide - in the Soviet Union, Nazi Germany, Cambodia, Yugoslavia, Ruanda etc. and he raises question of what could motivate human beings to participate in the atrocities. Others were “bystanders” who knew what happened without raising their voices in protest. Why did they remain silent? But there were also people who dared to protest, often with their lives at stake. What motivated these heroic people? What are the “moral resources” that a person can mobilise when his or her moral commitments are challenged?

According to Glover, a moral barrier against evil is to see the dignity of other people. For humans to be able to carry out massacres and genocides the victims must be dehumanized. This happened when the Jews were called “rats” by the Nazis in Germany or the Tutsis “cockroaches” by the Hutus in Ruanda. Sympathy is another moral resource according to Glover. Sympathy means being able to empathise and identify with the victim (Glover, 1999).

According to the moral philosopher Harald Ofstad, “Morality is to take the serious seriously”. What then is serious? It is serious that people starve, suffer and are killed, that people are exposed to lies and deception, that animals suffer, that values which we regard as important, such as freedom and justice, are violated and that our future is jeopardised by environmental destruction and climate change. The list can be made longer, and it embraces both things that happens in the small world and in the large, in the private as well as in the public sphere. According to Ofstad’s definition, these problems are moral problems. Moreover, given that they are moral problems, we cannot be indifferent to them. They demand our involvement.

Morality has an exceptional position in human relationships. We cannot presume that other people, for example our neighbours or friends, share our interest in say, music or our enthusiasm for football. We can be good neighbours and friends all the same. It is, however, another matter if a neighbour or friend is clearly indifferent to what is right and wrong. We are then not only at odds on what is interesting or exciting but also on the much more vital question how we should relate to each other. A person who is indifferent to what is right and wrong cannot be trusted and we cannot predict what he or she can do to us or to others (Scanlon, 1998).

The requirement that we act as responsible agents, that we are not indifferent to moral problems, always has been advanced by religious and philosophical figures. It is especially stressed by writers in the existentialist tradition, for example, the Danish priest Søren Kierkegaard and the French philosopher Jean Paul Sartre. For them, freedom is the distinctive characteristic of mankind. A person can always choose something other than what is expected. This ability distinguishes mankind from all other creatures. But with freedom follows responsibility. Every individual is responsible for how he or she lives, for the choices

made. We shape our lives. And we can, it is true, live our lives unmoved and unengaged, but that is also a choice, a choice not to live authentically. Perhaps it is so that the best seedbed for evil is obliviousness and heedlessness, not ill-will and evil intent?

Morality as the glue of society

So far, we have paid attention to the preconditions and functions of morality from the individual's perspective, but morality also has a social function.

So that people can live together in a society, they must follow norms and rules. Some norms are codified in laws and anyone who breaks them can be put to court. Most norms are however not formulated and written down but anyway known and accepted by the members of the society. We expect that our neighbour will not pick our apples without permission, that anyone meeting with an accident will be taken care of, that we can rely on promises, that anyone who has political assignments will act with the good of the public in mind and that people do their work to the best of their ability.

A society is built on expectations, on reliance and trust. All the tacit norms and rules that we follow in everyday life keep society together; they function as the glue of society. We know that everybody does not always follow the norms. But what happens if such behaviour becomes widespread? We know from history of societies where reliance and trust have been turned into suspicion and enmity. Some have disrupted. The former Yugoslavia is an example, while others, such as Germany in the 1930s, became terror dictatorships.

Corruption is a threat to many societies nowadays. By pension contracts, option schemes, bonuses, golden handshakes and other benefits, economic elites get privileges that those who work by the sweat of their brow only can dream of. Political trustees use taxpayers' money for their own travel and enjoyment.

Fear, distrust and the dissolution of norms follow in the wake of the scandals. These events risk dissolving the glue that binds together a loyal and humane society. Thereby, as the philosopher Thomas Scanlon stresses, something is lost that is of value for us all. The loss that arises when the society in which we live is perceived as unjust and immoral is "...reflecting our awareness of the importance for us of being 'in unity with our fellow creatures'" (Scanlon 1998, p. 163).

Basic moral questions

Three questions are basic for morality: *What is a right act? How should I act?* and *What is a good human life?* The first question is about grounds for assessing moral actions, the second is personal and directs focus on my own responsibility and the third deals with what is valuable in life.

These three questions are in the focus for moral traditions. One example is the Greek philosopher and teacher Socrates, living in the 5th Century B.C. When he raised these basic questions for morality and challenged people to find answers themselves, he was accused of misleading the youth by the political authorities and doomed to death. Socrates responded that the unexamined life, that is a life avoiding finding answers to the crucial moral questions, is not worth living.

About the same time but in another part of the world similar questions were raised by the Chinese philosopher Confucius. Also, for Confucius the moral questions were central for human life and society. For him, the questions must be answered in relation to the society one belongs to; what is a right act and a good human life is determined by one's position and relations in society.

What is interesting to notice is that in the history of ethics one can find moral rules that occur in different cultures and at different times. The best example is the Golden Rule. It was stated by Jesus in the following words: "Do to others what you want them to do to you"

(Matt. 7:12), and by Confucius; “Do not do to others what you do not want them to do to you” (Analects).

The philosopher Immanuel Kant’s Categorical Imperative states that what I choose to do I must wish that everyone would do in the same situation. Thus, one should according to Kant and other Golden Rule – ethicists, universalise one’s moral choices. In Chapter 2 on Normative Ethics, we will say more about the grounds for moral arguments.

Moral concepts

When you listen to a football report on the radio the reporter will use words like “penalty”, “free-kick” “centre-half” etc. This vocabulary is unique for football and those who like to play or watch the game have learned the terms. In a similar way, also ethics has a special vocabulary.

Let me now introduce some basic moral concepts:

A moral *duty* is what one ought to do to others. For example, as a father I have a duty to take care of my children and give them a good upbringing. Accordingly, my children have a *right* to be cared for. Rights are also important claims that citizens can have towards the state. For example, citizens can claim freedom of expression and work, and hence, it could be argued, that they have a *right* to free speech and a *right* to work. Consequently, the state has a duty to protect freedom of speech and to provide the citizens with work.

A *value* is something that is good or desired. For example, love and friendship are valuable constituents of a good human life. So are also health, self-realisation and education. In discussions on what is characteristic of a good society, or what makes one society better than another, a measure often used is how the society can provide citizens with health care and education. An example of such a measurement is the “Human Development Index” (HDI) used by the United Nations Development Reports.

A *virtuous* person is a person with a good character. He or she is wise, benevolent and trustworthy. *Virtues* are good character traits. Among virtues honoured by classical philosophers are courage, benevolence, and wisdom.

A *moral norm* tells us what a right action and a moral rule is and tells us what kind of actions one ought to do or not do, for example; “You should not lie!” and “You should not steal!”.

Our actions have consequences. To be responsible or take *responsibility* means to be able to answer the question; Why did you do that?

Justice is a term used in social and political ethics. A society that is characterised by justice is a good society with respect to, for example equal distribution, respect for human rights or individual freedom.

The fields of ethics

The terms morality and ethics are often used in everyday speech with similar meanings. The terms also originally had the same connotation: ethics comes from the Greek *ethos* and moral(ity) from Latin *moralis* and both mean custom, convention.

In modern moral philosophy it is customary to distinguish between the concepts ethics and morality. Morality denotes acts and standpoints, i.e. practice, while ethics means reflection over moral actions and moral standpoints, i.e. theory. Thus, we speak of a *moral* action but an *ethical* theory.

An analogy to the field of law may clarify this distinction. The legal framework and legislation express codified norms of behaviour. Jurisprudence is the study of and reflection on laws and legislation. The legal framework and laws correspond in the analogy to morality, while jurisprudence corresponds to ethics.

The academic discipline of ethics is divided in descriptive ethics, meta-ethics, normative ethics and applied ethics. When one is involved in *descriptive ethics*, one describes and explains moral behaviour and thinking. The study may concern everyday practical or professional morality or moral conceptions in history or today. Historians can study moral thinking and moral behaviour in history, sociologists can study and compare moral norms and values in different societies and social groups, psychologists can study how morality is related to human developments and human needs and literature studies can inquire how moral problems are dealt with in novels and other forms of literature. Often these kinds of investigations are done in cooperation with philosophers and theologians. Examples of such studies are the classic investigation (1978) by the sociologist Max Weber of the connection between the Protestant ethic and the spirit of capitalism, and the study by the philosopher Harald Ofstad of the morals of Nazism. Descriptive ethics thus overlaps with other disciplines.

Metaethics is a philosophical activity. Those who are concerned with metaethics investigate the conditions for argumentation in questions of value, e.g. the question if and in that case on what grounds it can be asserted that value judgements are true or false. In metaethics also questions of the function of moral language are treated, for instance whether value expressions give information about reality (informative function), express feelings (expressive function) or have some other linguistic function. An example: Is the statement “It is morally wrong to have an abortion” simply expressing a speaker’s feeling of repugnance towards abortion, as the so-called *emotivists* assert, or is it possible in some way to prove that the statement is true or false, as the *realists* assume?

Normative ethics puts the focus on the questions what is right and what is good. Here the interest may be directed at the moral action: what is a morally right action or duty, at human qualities of character, i.e. the ethics of virtue, or at what has intrinsic value. This field of ethics seeks to develop theories and principles for what characterises a morally right action or a just society. In the next chapter we deal with different normative theories.

Much discussed issues in modern societies concern the moral problems of stem cell research, the application of genetic engineering, whether euthanasia or assisted death should be permitted, about our responsibility for climate change and about social justice. These questions pertain to *applied ethics*. In applied ethics moral questions are dealt with that arise in different social spheres, for example working life – work ethics, healthcare – medical ethics, business life – business ethics. In applied ethics, the ethicist with his or her theoretical and methodical competence to work through moral problems meets the practitioner with experience from the area in question (see illustration).

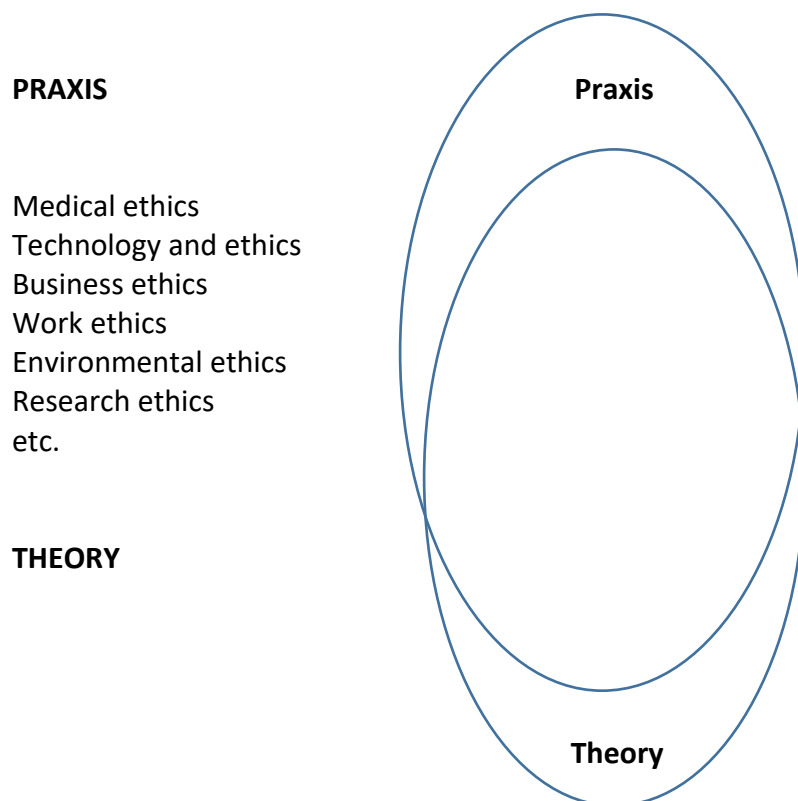


Figure 1. Praxis and Theory.

Is ethics relative?

Women cover their heads with veils in many Muslim countries. It is considered wrong to eat beef in India. Abortion is forbidden in many Catholic countries. Pictures of wanted criminals are put up in post offices in the USA. Smacking is an accepted part of child-rearing in England. Examples of different behaviour and values can be made a very long list. Does this mean that what is right in one culture is wrong in another? Those who reply yes to that question embrace a theory called *ethical relativism*. There is no independent basis for moral judgement, but values and norms are relative in proportion to different individuals, cultures, historical periods etc.

One can distinguish between different forms of relativism. There are divided opinions on moral questions. There are also different views within one country and there are differences between different cultures about what is considered right and wrong. The standpoint that there are such different modes of thought is called *descriptive relativism*.

Cultural relativism implies that different cultures differ concerning moral norms and values and is a type of descriptive relativism. The extent of culturally determined perceptions on moral questions should not be exaggerated, however. When we come into closer contact with a certain culture, we soon discover that in general there are different opinions on moral questions within a culture. Cultures are not as uniform as is often believed. It is also evident that many moral views are globally shared. For example, the human rights expressed in the Universal Declaration of Human Rights are embraced the world over, even if in varying cultures and societies these rights may be given different emphasis.

Does the fact that there are cultural differences in the view of morality, i.e. cultural relativism, also imply that what is right in one culture is wrong in another? Let us assume that child-spanking is generally accepted in England. According to one point of view, sometimes called *normative relativism*, it is then also morally right to spank in England but not in Sweden. But can one really draw a conclusion on what is right from a description of the fact that there are certain views in one culture and not in another?

To try to answer that question we can look more closely at the example of child spanking. In England a large part of the (adult!) population consider that spanking is right. So why is it right? How can one motivate hitting a child? Perhaps the answer is that without spanking the child will not learn how to behave. Thus, it is a means to educate children to be well brought up, law-abiding and socially well-adjusted adults.

How then does – for example - a Swede answer the question why he or she does not consider spanking to be a part of good upbringing? Perhaps the answer may be that corporal punishment is an obstacle to bringing up children to be well brought up, law-abiding and socially well-adjusted adults. What are the Englishman and the Swede disagreeing on? They are not at odds on the goal of the action. Both want the best for the child. Both motivate their actions with the claim that the child will benefit from it. They are then agreed where more basic values are concerned. Thus, the disagreement is essentially not about values but rather about facts. They differ in their view of what means (spanking or not spanking) best lead to the goal, which for both is the good of the child.

The example indicates that normative relativism cannot be supported by cultural relativism. Normative relativism also seems unreasonable for other reasons. It implies for example that one cannot criticise injustices and human rights violations that occur in other countries or cultures. These cultures have, according to the theory, after all their own criteria for what is right and wrong, criteria that an outsider neither can understand nor share.

Moral argumentation

There is a widespread view that it is not possible to argue over moral questions. According to this view moral judgements are based on feelings. When we judge an action to be right or wrong, we express a feeling and about matters of feeling we cannot argue. Value conflicts have their basis in different opinions and tastes, much as we differ over food. There is in this respect a decisive difference between ethics and, for example, science, since scientific disagreements can be resolved by – to simplify - empirical investigation.

The notion that there is a decisive difference between ethical argumentation and argumentation around factual questions can be questioned, however. Let us take a concrete example. When we see on TV how immigrants are ill-treated by hooligans, we react with anger and repugnance - we express a negative feeling to what we see. We can give voice to this feeling in a moral judgement: “It is wrong to abuse immigrants”.

If someone questions our reaction we do not answer by saying that we just have a negative feeling at what we see, but we try to give *reasons* why we react. Our expression of our feeling – and therewith our moral judgement – we can motivate with one or more general ethical principles: we think it is wrong to abuse immigrants because *It is wrong to treat people differently because of ethnicity* and because *It is wrong to exercise violence on people*.

If anyone questions these general ethical principles, we may perhaps refer to certain basic moral assumptions such as Every individual, no matter what their ethnic background, has the right to life and personal development or We should avoid causing pain and suffering.

The example illustrates how, when we want to justify a concrete moral standpoint, we go from a moral judgement of an incident we witness “It is wrong to abuse immigrants” to a general ethical principle (or several general ethical principles). The general ethical principle in

its turn is supported by certain basic moral assumptions. These form the basis of an individual's moral outlook.

What often makes the adoption of moral standpoints complicated is that our general ethical principles can support conflicting alternatives for action. We can take the question of euthanasia - much discussed in applied ethics - as an example. Should it be allowed to actively end the life of seriously ill patients who request it? Yes, one can answer and refer to the principle "One should respect the individual's right to self-determination". Alternatively, one can answer no and refer to the principle "One should protect and preserve human life". We here face a moral dilemma; euthanasia is supported by one reasonable moral principle but challenged by another. To resolve the dilemma and arrive at an opinion whether euthanasia is morally right or wrong we must go further in the analysis. We can then ask questions such as: Which ethical principle carries the most weight? Which ethical principle is most relevant in this concrete question? One possibility is also to *specify* the general principle "One should protect and preserve human life" in the following way: "One should protect and preserve human life, except in those cases where this conflicts with the will of the person concerned."

It is thus possible to argue even on questions of moral norms and values. Admittedly, the argumentation falls back on certain basic suppositions but in this respect, taking a position in value judgements is not principally different from doing so in questions of fact.

When one asks the question *why* a particular action is right or wrong, one can thus refer to general ethical principles and underlying basic suppositions. When in the natural sciences one asks the question *why* a particular event occurs, i.e. when one wishes to have an observation explained, this is related to a scientific theory that explains the observation and puts it into context, for example by subordinating it to a certain natural law. Scientific theories in their turn are built on certain, often unproven, basic assumptions about the nature of reality. A set of such unproven assumptions is called a *paradigm*.

It is also possible that the observation cannot be explained within the framework of the prevailing scientific theory. This can then have as a result that the theory is amended. There is also a parallel in ethics. What one intuitively understands as morally right in a concrete situation can conflict with the judgement that follows from the ethical principles and/or the ethical theory one embraces. This conflict can bring us to revise our ethical principles and ethical theories. It is by testing (and possibly modifying) ethical principles and theories against specific intuitive judgements, which in turn are tested, and possibly modified, against principles and theories (intuition can after all be unreasonable) that one approaches a *reflective equilibrium* (balance) in one's ethical outlook.

It is of course possible also to question the basic assumptions made in ethics, for example that one should avoid pain and suffering, as well as in science, for instance that there exists a reality beyond our senses. Even if it is not possible to prove that the basic assumptions are true, both these contentions appear equally absurd.

By this comparison, I merely wish to point to a structural similarity between ethical argumentation and argumentation on judgements of fact. There are of course differences and problems that have here been passed over.

An ethical decision model

Moral problems are often complicated and difficult to solve. It is then essential to structure the problem so that we know what we have to decide on. It is necessary both to know "the state of affairs", i.e. facts, and relate these to relevant ethical norms and principles. The rejection of scientific experiment on human beings in Nazi Germany and in Unit 731, is based both on knowledge of the experiments: the methods used, the suffering caused to the experimental victims and the racial discrimination that the experiments were expressions of,

and on the type of ethical principles we specified in the previous section. Our attitude to these experiments is grounded on both factual knowledge and values.

Who then is a moral decision-maker? It may be a doctor who must resolve whether a treatment should be terminated, an engineer who should decide which risks to accept, a parent who has to determine whether he will let his child play a violent computer game, a politician who must decide on principles for the care of old people or a friend who must tell someone that he has lied. We are thus all moral agents in our different roles and functions. A moral decision-maker or *moral agent* is anyone who decides and acts on it. A *moral patient* – or stakeholder – is anyone who is the object of the action. In the above examples a patient in terminal care, a user of a technical appliance, a child, old people in a community and a friend.

How then can we in a considered way adopt a moral position? The following model which can be applied to all types of ethical decision making illustrates what one must take into consideration:

Decision model in ethics

1. *Formulate the problem.*
What is the problem?
2. *Gather information*
What information is needed to decide on the problem?
3. *State the alternatives*
What are the alternatives for action?
4. *4. Assess consequences and actions*
What consequences result from the various alternative courses of action and/or what kind of action (such as for example breaking a promise or lying) are we facing? Who are the stakeholders, i.e. who are affected by the action?
5. *Assess probabilities*
What is the likelihood that the various possible consequences may occur?
6. *Moral judgement*
How do I morally judge the various possible consequences and types of action? Are they compatible with reasonable ethical principles, norms and values? Does the action conflict with some reasonable ethical duties or norms, such as keeping promises or telling the truth?
7. *Decide*
What alternative courses of action should I choose?
8. *(Action)*
9. *Evaluation*
Was the result what I had intended?

If we structure a problem in this way, we find that a reasoned decision must be based both on a consideration of the facts, i.e. an assessment of the consequences and probabilities, and on a value judgement. We need both to be well-informed about the facts and have reflected on the values and norms that are relevant for the problem we must decide on. Which values and norms are the grounds for judgement? Normative ethics provides an answer to that question, and some answers are discussed in the next chapter.

Often, we must make rapid decisions and then it is not possible to follow a decision model. The model can however be useful when we have time and when we afterwards reflect on a decision we have made.

For those who in this way wish to be able to morally motivate their decisions, it can also be important to follow up what happened. Therefore point 9, *Evaluation*, is also included in

the decision model. In this way, one can make use of earlier experiences when faced with new and similar problems.

Practice

Try to apply the decision model to the following case:

You are a postdoc. A journal article is almost finished. You have collaborated with two colleagues but now the old professor - mentor of the institution – who has not contributed to the article, insists that his name should be included. What should you do?

Are rational moral decisions possible?

Behind an ethical decision model of the type presented here, lies the assumption that there are more or less rational ways of making decisions or solving moral problems. We have good reasons for our point of view if we have thoroughly examined the possible consequences of different alternative courses of action and how likely these consequences are; also if we have thought through the system of norms and values that should form the basis for the decision, so that we have achieved a reflective equilibrium in our ethical thinking. We can then take responsibility for our decisions in a different way than if we have simply acted spontaneously.

If we apply the model for rational ethical decision-making to political topics of debate, we will find that the rational ideal is difficult to fulfil. The debate over nuclear power is a clear example. According to the model, the consequences and probabilities of different alternatives, that is the assessment of facts, should be done as precisely and objectively as possible. Then the various debaters can *judge* these consequences differently. A survey of the nuclear energy debate shows however that the opposing parties were at least as divided on questions of fact. How great is the risk of reactor failure? Is it possible to store nuclear waste safely? To these questions we are given radically different answers by the various opposing parties. The example shows that our assessment of facts is often swayed by our attitude to the overriding question, in this case whether nuclear power should be developed or phased out, and by our values.

The ethical decision model can offer a way to reach greater unity based on rational considerations in ethical questions. When we analyse controversial problems in this way, it becomes clear what the discussants disagree on. Thereby the next step can be by dialogue, i.e. with an open mind and by mutual give and take, where the force of the argument is the only relevant factor, to seek to eliminate differences in judgement. The process will gradually lead to elimination of misconceptions, misunderstanding of the other's position and other obstacles to understanding and the opposing parties in the discussion are approaching each other.

It is easier in this way to reach agreement for discussants who are in the same ethical tradition. They share certain basic assumptions about nature, society and mankind and certain norms and values that have evolved over a historical period. One can for example speak of a "liberal tradition", a "Catholic tradition", or a "Confucian tradition". The obstacles to reaching mutual understanding are greater if the participants in the discussion belong to different traditions, even if *in principle* it should be possible also to apply the ethical decision model to this type of debate. In a globalised world where people and cultures are coming ever closer, it is important to find aids to increased understanding, rather than entrenching oneself by fortifying one's own traditions.

Chapter 2. Normative Ethics

In the novel *Crime and Punishment* Russian author Fodor Dostoyevsky describes how the poor student Raskolnikov comes up with the idea to murder a rich, mean old woman. She is moneylender and she forces those who are indebted to pay their debts even if it implies their ruin. Raskolnikov justifies his decision to kill her in the following way:

Think of all the hundreds, yes thousand good things and initiatives that would be possible with the old woman's money...Hundreds, perhaps thousand lives could be saved... tens of families could be saved from poverty...all this for her money. If one killed her and took her money to serve humanity and the common good with the money, would not all the thousand good deeds justify such a small crime? One life substituted to hundred lives – that is plain arithmetic...

Raskolnikov justifies his killing with all the good consequences that would come out of his action. But confronted with Raskolnikov's justification we must ask the question: are there acts that are impermissible despite any beneficial consequences that may follow?

Dostoyevsky seems to answer the question with a yes. In spite of Raskolnikov's seemingly reasonable justification for killing another human being, the deed will haunt him as a dark shadow all through his life. And this is the *sense morale* of the novel; killing another human being is a kind of action that affect a person negatively. The same idea is central to Buddhist morality. A decisive reason against killing, stealing and similar actions is that they tend to imply negative *karma* for the person who performs them.

Dostoyevsky confronts us with a moral dilemma. The three moral aspects of the situation; to justify the actions by its good consequences, the problem if there are actions that one ought not to perform irrespective of the results and the implications of the action for the agent him or herself, are three basic questions of normative ethics.

The need for normative criteria

In the introduction we stated that as humans we face a wide range of moral demands – they are, one could say, a part of human existence. Normative ethics deals with the questions of how we should act and what is a right action. How can we to the best of our understanding and as reasonable as possible take a stand to the moral problems that we face to find a right action. We have noticed that the Golden Rule has instructed people over the ages about how to act. However, the Golden Rule is not sufficient as moral guidance. There are many actions, not least by states, that are not covered by the rule.

When we reflect on normative ethics, we see that to avoid arbitrariness we need some principles and rules. If we want to be consistent – and how could we want something else? - we cannot in one situation choose one way to act and in another similar situation, make a different choice. Ethical principles not only guide our moral deliberations and the way we act, but they also make it possible for us to justify our action afterwards.

How, then can we ultimately justify our moral views? What criteria can we use for judging whether an action is right or wrong? Different normative theories give different answers to these questions. I will start with an example to illustrate different normative views:

There is an ongoing heated debate on computer-based research and individual privacy. For example, in sociological research one uses information about people's health status and ways of living to get knowledge of health risks and causes of illnesses. To get a comprehensive base of information, researchers have linked data files without asking the individuals for consent. Those who are critical of this computer-based research maintain that it violates individual privacy and individuals' right to self-determination. An individual

has according to this view a right to consent to the use of information of him or her. Those who are in favour of the research opine that this is the price we must pay in the modern society to get knowledge needed to track health risks. They maintain that the positive consequences of this research outbalance the potential privacy intrusions.

This example illustrates two main categories of normative ethical thinking. According to *consequentialism* a moral judgment should only consider the outcome of an act. The alternative view, *deontology*, focuses instead on the characteristics of the act, for example if it is consistent with rights or if it respects human dignity. In the example above the proponents of the research are arguing according to consequentialism and the opponents are arguing in a deontological way.

Normative theories are used to assess individual acts. But not only that. They provide a normative basis for all kinds of moral evaluation, e.g. for any result of human acts that influences the life and well-being of humans and animals, as well as for a moral evaluation of social institutions, political practice, and economic and technical systems.

In this chapter I present and discuss some normative theories. I start with the two main alternatives: consequentialism and deontology. We will see that there are different kinds of both consequentialist and deontological theories. What are the arguments for and against different theories? The discussion of the pros and cons of different views is illustrated by examples. Both consequentialism and deontology focus on the question of what a morally right act is. Virtue ethics focuses instead on the question of what a good person is. After the discussion of the main alternatives in normative ethics, I discuss two theories that have recently influenced the ethical discussion. The first is communitarianism. Communitarians emphasize the importance of communities for our moral thinking. The other is feminist ethics. Here, the focus is on sex and gender as important factors for our moral thinking and understanding.

Consequentialism

What is common for the consequentialist theories – or teleological theories (from Latin *telos* which means goal) as they are commonly named in the philosophical discourse – is that the only thing that matters for a judgment of whether an act is right or wrong is its outcome; what values are realized and/or what harms avoided?

Further questions to consequentialism are: Consequences for whom? What consequences? What values should be achieved? Different consequentialist theories answer these questions differently and I will limit the presentation to three different theories.

Ethical egoism

My first classification of consequentialist theories is based on answers to the question: consequences for whom? It is a common view among ordinary people that human beings are egoistic creatures. The way we act is always motivated by a wish to get as much pleasure for ourselves as possible. This is a view of the human psyche and is called *psychological egoism*. While we basically act out of self-interest it is also realistic to follow the principle always choose the alternative that maximizes pleasure for oneself. This view of what is right is called *ethical egoism*. According to this theory, morally right action is the one that benefits myself.

However, despite its popularity, psychological egoism should be questioned. Are we not motivated in real life by various other reasons than our own well-being? Sometime the reason to act is to help a person in despair, sometime the reason is to achieve a goal, for example to solve a problem or respond to a challenge. Surely, we are satisfied after we have helped a person or achieved the goal, but to acknowledge that our acts *result* in our own well-being is something else than to argue that we always are *motivated* by our own well-being. The problem with this psychological argument for ethical egoism is that it mixes up the motive for

an act and its resulting feelings. This objection to the psychological precept for ethical egoism originates from the 18th Century British philosopher and Bishop Joseph Butler.

In fact, one can question whether ethical egoism is an ethical theory at all. A common reason for distinguishing morality is that a moral judgment must consider the interests of all affected parties/stakeholders, while egoism only counts a person's own interests. Everyone should be able to agree in the assessment of a *moral* act irrespective of whether he or she gains from it or not. According to this view, often labelled "the moral point of view", universalism is a characteristic trait of morality.

The British moral philosopher Richard M Hare (1981) argues that *universalisability* is a necessary condition of moral acts. It means, among other things, that a person who judges a specific act as morally right, is also obliged to judge any other act with the same moral characteristics as morally right. It is then irrelevant whether I or someone else is gained or not. For example, if I cheat the tax authorities and argue that it is morally correct for me to cheat, I am obliged to hold the view that it is right for any taxpayer in a similar situation to cheating. However, from the point of view of ethical egoism this seems to be wrong. It is not in my interest that other people cheat. In other words, it is contradictory to universalise views justified by ethical egoism.

Third, another problem with ethical egoism is that it presupposes an arbitrary preferential treatment. Why are *my* interests more important than others' interests? Are there any relevant differences between me and others that would justify such a preferential treatment? No, when we consider human well-being and interests, e.g. aspects relevant from a moral point of view, we are equal.

Fourth, ethical egoism has also the absurd implications that cruel acts can be morally justified if they for some reason gain me! We can conclude that ethical egoism does not offer any reliable basis for moral evaluation.

Ethical perfectionism

Perhaps we should use personal self-development or self-realisation as criterion of right and wrong? The Ancient Greek philosopher Aristotle developed a theory of morality focusing on how human beings can strive towards realizing their destinies. He assumes that each living being, including humans, have potential to achieve various aims and the goal of life is to realise these potentials. For humans, virtues are the means of doing this. Even Confucius, the Ancient Chinese philosopher, represents a similar view in his book the *Analects*. For Confucius, self-development is a moral goal for all human beings. The idea that morality aims at human perfection is also represented among 20th Century humanists, for example did the psychologist Erich Fromm develop a similar view of human development (Fromm 1947).

Common for so-called perfectionist theories is that the goal of a human life is to realize its innate resources. We both have resources common to humankind, for example to think and to love, and resources that are individually different. One individual may have a capacity to compose music, another to repair cars and a third to run fast. The goal of human life is to realise both these common human and individual capacities and the society is obliged to support the attainment of this goal. For Aristotle the highest human capacity is to reflect on the meaning of life, how the world is ordered and how to act moral. Aristotle writes: "...the life according to reason is best and pleasantest, since reason more than anything else is man. The life therefore is also the happiest" (Aristotle 1980, p.266).

A human being who is privileged to develop his or her capacities will achieve self-realisation. Self-realisation is the goal of human life, and acts that contribute to this goal are right. In this respect this theory of morality is self-interested. However, according to both Aristotle and Confucius, friendship is one condition for a good life. Consequently, even

actions that benefit other people contribute to a person's own self-realisation. For example, by helping a friend, I benefit him, strengthen our friendship and develop my own capacities.

Ethical particularism

In his book *Humanity, A moral history of the 20th Century*, British philosopher Jonathan Glover uses the term "tribalism" for a mode of violent behaviour. With multiple examples Glover shows how group identities based on ethnicity and religion have paved the ground for aggressive behaviour towards "the other". That happened in Northern Ireland where Protestants fought Catholics, in former Yugoslavia where Serbs, Croats and Bosnians fought each other, in Ruanda where Hutu fought Tutsi etc. Common to these examples is that one particular identity, the ethnic or religious, becomes dominant. Ethnic and religious identities are often unfolded in conflict with the others. Tribal identity is a basis for one form of ethical particularism (Glover 1999).

According to ethical particularism, the consequences for the group I belong to are decisive for my judgment of right and wrong. A right moral act is one that benefits my group. The group could be my nation, my ethnic group, my religious community, my family, my company etc. In the beginning of the 19th Century the American Commander Stephen Decatur uttered the famous words "My country, right or wrong". This patriotic idea implies that irrespective of what my country does, it is right just because it is my country. This kind of patriotism or nationalism is a form of ethical particularism.

Ethical particularism is a way to apply ethical egoism to a group level and it suffers from the same problems as ethical egoism. Why should we not assess our own nations' position before we decide to support it or not? Why should the interests of my own nation have priority just because I happen to live there? Universalism is as relevant for international relations as it is for interpersonal behaviour. Thus, the moral point of view comes into conflict also with ethical particularism.

The question we above posed to Consequentialism: Consequences for whom? has so far been answered by ethical egoism with "for myself" and by ethical particularism with "for my group". As a basis for morality these answers are flawed, and we must look for another answer.

Ethical universalism: Utilitarianism

We have seen that both ethical egoism and ethical particularism are subject of serious criticism. Utilitarianism is a consequentialist theory that is not hit by the objections against ethical egoism and ethical particularism. Utilitarianism does not presuppose any particular psychological theory as ethical egoism does, it is universal and it implies equal treatment of each individual.

Many present-day moral philosophers are utilitarians, among them for example Richard Hare and Peter Singer. According to utilitarianism, when we judge whether an act is morally right or wrong, we should only consider its consequences for all affected human beings – and according to some utilitarians even the consequences for animals. The 18th Century British philosopher Jeremy Bentham summarises utilitarianism in the following words: "By the principle of utility is meant that principle which approves or disapproves of every action whatsoever, according to the tendency which appears ...to promote or to oppose...happiness" (Bentham 1948, p. 2).

The goal for utilitarianism is a world with as much utility (or happiness) as possible, and actions that maximize utility (or minimise harm) are morally right and actions that minimise utility (or maximize harm) are morally wrong.

What is utility?

At the basis of utilitarianism, we find a view of what is good. Utilitarianism offers a definite but controversial value theory. Utility is the central value for utilitarianism, but what does it mean? According to Jeremy Bentham and many other utilitarians, utility means the experience of pleasure, happiness or well-being. According to this theory of value, called *hedonism* (after Greek, *hedone* meaning satisfaction, happiness), everything we appreciate, like knowledge, health and love, are desirable because they give us pleasure. Pleasure is the only *intrinsic* value and values like knowledge, health and love are *instrumental* values, i.e. valuable because they are instrumental for pleasure.

Bentham lived in a time when the scientific worldview conquered the world. He was inspired by this worldview and thought that utilitarianism was the first scientific moral theory. Pleasure is according to Bentham quantifiable and different acts are according to Bentham right or wrong with respect to how much pleasure or pain they bring about. Utilitarianism can thus offer an objective criterion of morality. This view of value is called *quantitative hedonism*.

Bentham's simplified view of value has absurd consequences. For example, assume that there was a "pleasure machine" that could be connected to our brain. The machine produced electrical impulses that stimulated the neural centres so that we would get continuous experiences of pleasure. Would we prefer a life where we are connected to the machine (only with the necessary breaks for satisfying our natural needs) to a "normal" life with both pleasures and pains? Most people would probably say no because there are other things than pleasure that we value in life. The pleasure machine would give us pleasures but no other values that are part of a good life, like for example excellence and self-development (Nozick 1974).

John Stuart Mill, a pupil of Bentham, became critical of Bentham's view. It was based on a simplified view of human beings, Mill thought. Mill was a utilitarian as well as hedonist, but he argued that pleasure is something more than simple feelings of satisfaction. According to Mill, there are different kinds of pleasures, and the difference depends on both their source and who is experiencing them. Thus, one cannot, as Bentham thought, measure pleasurable experiences according to only one yardstick. Mill expressed the view that there are qualitative differences between pleasures in the following striking way:

It is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a pig satisfied. And if the fool, or the pig, are of different opinions, it is because they only know their own side of the question. The other party to the comparison knows both sides (Mill 1962, p. 260)

Only a human being who could experience and compare different kinds of pleasures can judge what pleasure is better from a qualitative point of view. Mill's view is called *qualitative hedonism*.

It is a very complicated task to judge and compare different experiences of pleasure; does, for example, listening to a concert give us more pleasure than eating a good dinner? To avoid these intricate measurements, some present-day utilitarians prefer to use preferences rather than pleasures as a value criterion. Using preferences as criterion implies that the ethical judgment of an action is based on how it satisfies the affected persons' preferences. This version of utilitarianism is called *preference-utilitarianism*.

But how should we compare different people's preferences? For example, does preference-utilitarianism imply that Bobby's preference for a stereo weigh as heavy as old Charlie's preference for a wheelchair? No, answers the preference-utilitarian, not if we apply the principle of universalism. Then Bobby must consider old Charlie's situation, and old Charlie must consider Bobby's. It is reasonable to assume that in this case, old Charlie's

preference for a wheelchair is much stronger than Bobby's preference for a stereo. Unless of course, Bobby is totally paralyzed and has no other stimuli than the stereo.

But is really satisfaction of preferences the only criterion of the right act? That could for example imply that it is morally right to provide narcotics to a drug addict to satisfy his or her preferences. And does not advertisements and propaganda often manipulate our preferences so that we desire things that are not good for us? We often desire things that we do not need.

Perhaps then *need* is a better criterion of value than preference? But what is a need and how does it differ from preference? Need is what is necessary for us. The Finnish philosopher Georg Henric von Wright defines a need as something "that is bad for a living creature to be without". It is according to von Wright possible to assess this in an inter-subjective way and he compares need fulfilment for human beings with need fulfilment for plants. A plant needs light, oxygen and water. If it does not get light, oxygen and water up to a certain level it will die. If it only gets a minimal amount of light, oxygen and water the plant will languish. But if it gets what it needs it will prosper. In a similar way, a human being has certain needs that must be satisfied for her to stay alive. To survive a human being needs a certain amount of nourishment, oxygen and social relations, but for a human being to prosper a wide range of physiological, psychological and social needs must be fulfilled. According to psychological theories a human being needs security, community, self-respect, understanding, self-realisation and freedom to live a good life.

Von Wright's theory of human needs provides us with a basis for need-oriented utilitarianism. Fulfilment of needs is then the criterion of the intrinsic value well-being. According to this version of utilitarianism, maximizing need-fulfilment is the criterion of the right action. In Chapter 4 I will come back to the question of the good life and human capabilities.

Objections to utilitarianism

Utilitarianism has gained support from many prominent philosophers from the 18th and 19th classics Jeremy Bentham, John Stuart Mill, to the contemporary philosophers Richard Hare and Peter Singer, but is it a well-grounded normative theory? Utilitarianism is very much discussed and criticised, and I will now take up some of the objections raised against the theory.

Is it possible to predict the consequences of an act?

Case 1

John is on his way home from work. Old Auntie Elisabeth, who lives close to John walks along the road with heavy bags in her hands. John stops his car and gives Auntie Elisabeth a ride. However, on their way another car bumps into their car and Auntie Elisabeth is severely hurt. Was it right of John to offer her a ride?

Case 2

The doctor assumed his patient wanted to know her health status and told her about the cancer diagnosis. He thought that she then could prepare herself for the treatment which would help her recovery. However, contrary to his expectations she became so afraid and depressed that she decided to commit suicide.

Even when we have good intentions, the consequences of our choices might be harmful. Case 1 and Case 2 illustrate that it often is very difficult to predict the consequences of one's actions. This fact poses a problem for a normative theory that is based on assessing consequences to find out what is a morally right act. Can we really foresee the positive and negative effects of our actions? The utilitarian can tackle this problem in two ways. One response is to admit the unpredictability of human actions. Hence, the utilitarian recommends

the alternative act that based on a thorough analysis *now* probably would lead to the best consequences *then*. In Case 1 above, it is very unlikely that another car would bump into John's car, and in Case 2, the doctor had good reasons to expect that his patient would react in another way than she in fact did. Even if the real consequences in both examples were worse than the consequences would have been if John and the doctor respectively had made different choices, they are not to blame. In any case, these examples show the problems that the unpredictability of human actions poses for utilitarianism.

Another way for utilitarianism to respond to the problem of unpredictability is to base the judgment on rules rather than on consequences of acts. Let me explain. There seems to be some kind of actions that normally leads to the best consequences, i.e. that normally maximizes utility. For example, if we follow the rules "You should give a ride to old ladies who carry heavy backs", or "Tell your patient the truth", this normally leads to the best consequences. Hence, these *rules* could be motivated by utilitarianism. This version of utilitarianism is called *rule-utilitarianism*. The basic idea that morality is connected to utility is saved by rule-utilitarianism but the problem with unpredictability is avoided.

The kind of utilitarianism that basis the judgment of moral rightness on actions is called act-utilitarianism. However, as we have seen this version relates to some problems. The problem of unpredictability can imply paralysis; we are so unsure of the probable outcome of our actions that we avoid choosing. A version of utilitarianism that in contrast is based on rules can avoid this difficulty. According rule-utilitarianism, the rules that the utilitarian recommends are justified by utilitarian standards. In fact, some utilitarian philosophers even believe that utility is maximized in a society where people act in accordance with the duties and rules that are imbedded in their society's ethos even if they cannot be justified by utilitarian standards one by one (Sprigge 1988).

So far, we have discussed utilitarianism as a method for deliberation. However, this is not the only way to apply the theory. Another way is to apply it ex-post, after the action is done. The theory is then applied as a definition of correctness; utilitarianism help us to find out which actions were morally right, and which were not.

Philosopher Richard Hare develops this idea further. According to Hare there are two ways one can approach moral problems. Ordinary human beings, what Hare calls "the prole", faces various kinds of moral decisions. His or her decision is based on moral intuitions and common moral rules and principles. "The archangel", i.e. the well informed and impartial observer, approaches a moral situation in a critical and reflective way. Hare's question is; when do we approach a moral problem as a prole and when as an archangel? In ordinary life we act as proles. There is normally no time to critically reflect on each situation. But when our principles come into conflict or when we sense that we did something wrong, there is a need to challenge our habitual principles and morals. Then we approach the archangel's perspective. We assess our principles and we think through our judgments; perhaps they were based on false premises? As members of a moral community, we might share our doubts with our fellows and listen to their views. From this critical outlook we might see that we should have acted differently (Hare, 1981).

One's own children and other people's kids

Case 3

My son will for the first time go with some friends to the Alps for skiing. He has a pair of skies that he inherited from his sister. Should we buy new ones? There is nothing wrong with the old ones even if they are not the latest fashion. New skies cost 2000 SEK and that is exactly what I can spend. I recently heard that for 2000 SEK one can vaccinate 100 children in a poor country against malaria. How should I use the money?

This is an example of a kind of moral decisions that we often prefer to hold back. According to utilitarianism it is obvious that we should spend the money on vaccination. That most people who can afford it probably would buy the skies instead, illustrates what in ethics is called “weakness of the will”. We often do not act in the way we know we should. But perhaps our choice anyway is morally justified? Don’t we have special obligations to our own children?

An objection to utilitarianism is that it does not take our special relations seriously enough. It seems like an awkward implication of utilitarianism that it does not distinguish between different kinds of obligations. I have special obligations to my children and others to theirs. Intuitively, this seems to be basic to any moral view, and it is for example central to Confucianism, emphasizing the importance of family relations.

But perhaps this reasoning also implies a motivation that is acceptable to the utilitarian? In accordance with for example Confucius we can maintain that we have special responsibilities, for example to be a mother or a father. My responsibility as a father is to care as much as I can for my own children and other fathers fulfil their responsibilities by taking care of their children. As a consequence, all children are taken care of and, hence, both community and utility are maximized.

There is much wisdom in this view of responsibility and caring. However, there is an obvious risk that some children will be left behind. There are millions of children that no one cares for. The “community morality” might work to a degree. If “each individual should be treated as one and no one for more than one” as Jeremy Bentham says, it is necessary to complement family and community-based duties and provide support to the children that no one care for.

Under the slogan “The life you can save”, utilitarian philosopher Peter Singer campaigns for duties towards the poor. The campaign starts from the assumption that all of us have a moral duty to help children in distress, including children we do not know and even if we by doing that have to sacrifice something for ourselves. For more information:

<http://www.thelifeyoucansave.com>.

Is it right to sacrifice the interests of the few for the interests of the many?

We saw above that in Dostoevsky’s novel *Crime and Punishment*, Raskolnikov justified his decision to kill the mean moneylender with the good consequences it would lead to. When the sole criterion for a right action is the utility it produces, the problem how to act if there is a conflict between the interests of the few and of the many arises. Is it always right to favour the interests of the majority, and is it right to sacrifice a few for the good of the many? For example, can it be right to kill a human being to save others? Yes, the utilitarian would answer. There might be situations when the beneficial consequences of killing another human being outweigh the harm. Wasn’t for example the failed attempt to murder Adolf Hitler in 1944 morally justified? If the attempt had been successful many lives would have been saved. And a Marxist would argue that in a revolutionary war it is indeed morally justified to kill those who defends an oppressive regime if this is the only way to achieve liberation and a class-less society.

The question whether beneficial consequences provide a sufficient basis for moral justification is also much discussed within medical ethics. Is it morally justified to use living embryos for medical experiments and for transplantations? If we assume that the embryos lack consciousness and do not experience any pain, is then the use of embryos justified due to their beneficial consequences for combating serious illnesses? A utilitarian would answer the question affirmatively. In contrast, adherents of the ethical theory that I now will discuss argues that consequences are not the only basis for a moral judgment.

Marxist consequentialism

Karl Marx and Friedrich Engels developed historical and economic theories that had a great influence on the labour movement. What then were their ethical views? Marx and Engels are mainly known for their critique of morality. Morality is seen as a part of the superstructure, an ideology that legitimizes class society. Marx and Engels criticize what they call “bourgeoisie morality”, i.e. the norms and values of capitalist society.

One example of what Marx and Engels target is the 17th Century philosopher John Locke’s theory in political philosophy. He is the foremost representative of a moral defence of capitalism. According to Locke’s theory of property rights, anyone who through his or her labour creates new value, for example through cultivating land that no one owns, achieve property rights to this. Therefore, property rights have a crucial standing to protect this acquisition, and freedom is a primary value protecting the rights of property holders to exchange their property. In this way, Marx and Engels see property rights and freedom as basic for capitalist morality.

However, one can also extract a normative ethical position from the writings of Marx and Engels. The starting point is the theory of alienation. As we noticed, private property is one basic feature of capitalist society. The flip side of private property is the alienation of the workers.

Why, then does private property to the means of production imply alienation of the workers? To understand Marx’ and Engels’ answer to this question we must look into their view of work. Work is essential to human beings. In fact, it is through work, i.e. the conscious creative human activity, that human beings fulfil their destiny. Work is a defining feature of human nature. This is an ideal view of work. But in capitalist society work has become a curse. The result of work, the product, is taken from the worker by the owner. Consequently, the worker is alienated from his or her work. Due to the importance of work for human nature, a human being who lacks control of her work becomes alienated from herself. While this is true for all workers who are in similar situations, they also become alienated from their fellow beings. Finally, workers are alienated from their true human nature and become more like animals. In sum, alienation is characteristic for capitalist society, and while this is something destructive and negative it should be overcome.

Another, and completely different society where the workers control the means of production, that is a communist society, is the aim for Marx and Engels. This is their normative ideal. In this society human beings are not forced to execute a particular work each day. Marx writes:

For as soon as the distribution of labour comes into being, each man has a particular exclusive sphere of activity, which is forced upon him and from which he cannot escape. He is a hunter, a fisherman, a shepherd, or a critical critic and must remain so if he does not wish to lose his means of livelihood; while in communist society, where nobody has one exclusive sphere of activity but each can become accomplished in any branch he wishes, society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow, to hunt in the morning, to fish in the afternoon, rear cattle in the evening, criticize after dinner, just as I have in mind, without ever becoming hunter, fisherman, shepherd or critic. (Marx, *The German Ideology*, 1845–1846)

Thus, we can see that underneath Marx’ and Engels’ critique of capitalism lies a normative view. A right action is defined as an action that helps us to realize a society without human exploitation and alienation. In this way, the normative ethics of Marx and Engels is a kind of consequentialism. When this society is realized, the basic principle of justice is; “From each according to her capacity, to each according to her needs”.

Marxist normative ethics can be interpreted as a version of universal consequentialism, perhaps even of need-utilitarianism. Marx argues that political actions that contribute to the class-less society are right and those that preserve class privileges are wrong. Further, as he writes in the book *The German Ideology*, the class-less society is characterized by the full realization of human needs. Then every human being can fully realise his or her needs; fishing, studying, farming, painting etc.

Deontological theories

In the novel *Life and Death Are Wearing Me Out*, Chinese author Mo Yan (莫言) writes about the poor farmer Lan Lian who despite the pressures from the Red Guards after the revolution in China refuses to join the Commune and insists on cultivating his own small property. Is Lan Lian justified in his refusal? This is one of the key questions in Mo Yan's novel.

The case of Lan Lian can illustrate a basic idea in deontological ethics. Mo Yan wants to illustrate that in some cases individuals have rights that should be respected and protected despite the will of the majority.

The common denominator of deontological ethical theories (from Latin *to deon*) is that consequences are not the sole criterion of right or wrong actions. Deontological theories differ though on what this other criterion is.

I will in the following discuss three types of deontological ethics. According to the first, represented by the German 18th Century philosopher Immanuel Kant, our morality should follow some duties. According to the second, morality is grounded in agreements, and according to the third, morality is based on rights.

Kant's duty ethics

The German philosopher Immanuel Kant (1724-1804) has greatly influenced later ethical thinking. According to Kant our actions can be motivated by both emotions and rationality. A moral act is autonomous, based on reason and in accordance with the moral law. The moral law is different from natural laws. It is not, as natural laws, something given by nature but instead formulated by a morally conscious person. He or she decides with the help of reason what acts that- so to say - would have been moral natural laws if such a thing had existed. Kant stresses that human beings have the capacity of autonomy. A person is not governed from below, i.e. by her biological needs, from behind by her history or from above by God or fate.

To act in accordance with the moral law is to choose to follow moral duties. Then, human action is governed by the good will. The good will is the only intrinsic value, all other things may be used both for beneficial and evil purposes.

How can one find out what is a morally right action, i.e. what is according to the moral law? As we saw, a utilitarian answer is that a right action is the action that maximises utility. The Kantian would instead answer that it is the action that could become a universal law. This implies that what I choose to do, I also wish that everyone else would do under similar circumstances. This guiding principle for moral acts is called the Categorical Imperative.

Kant himself illustrates the difference between moral acts and acts motivated by emotions or inclinations with the following example: am I in a difficult situation characterized by stress and pressure justified to make a promise that I do not intend to hold? One can answer this question in two ways. One can maintain that it is imprudent to make a promise without the intention to hold it because no one will trust me in the future. However, this motivation is based on self-interest. It is from egoistic reasons that I choose to avoid a false promise. But I can also refer to the moral law. Then I ask myself if it is reasonable to wish that my maxim, i.e. to make a false promise to get out of a difficult situation, becomes a universal law. The

answer is of course no. That would imply that one never knew when a person intended to keep his or her promise or not. There would no longer exist any promises. If my maxim would become a universal law, it should dissolve itself, according to Kant.

In this way we can, according to Kant, formulate and motivate our moral duties. “One should not commit suicide!”, “One should tell the truth!”, “One should help people in despair!” are some of the duties that Kant motivates with the Categorical Imperative.

We saw above that rules and duties according to rule-utilitarianism are motivated by their consequences. Kant motivates duties in a completely different way. According to Kant duties are grounded in reason. It is, Kant maintains, contradictory not to follow duties motivated by the Categorical Imperative. As rational beings we cannot wish that one acts contrary to them. Thus, we should act according to reason and not according to feelings, Kant argues. Does that then also apply to our duty to aid people in despair? It seems natural to see this duty as grounded in empathy or sympathy. Kant responds that not even in this case should the feelings govern our acts. In contrast, when meeting a person in despair one asks what action one is willing to see as a universal law. Kant’s own answer is that while anyone of us sometime might experience a similar situation of despair, it is contrary to reason not to act according to a duty to aid.

Although morality is based on reason, according to Kant, feelings also play a role for our moral judgments. Nature has placed a sense of empathy in human beings to make it easier to act according to the duty. The sight of a person in despair motivates us to act according to our duty, i.e. to aid diseased and suffering persons.

The categorical imperative has also according to Kant a second formulation: “Act in such a way that you treat humanity whether in your own person or in the person of any other, never merely as means to an end but always at the same time as an end” (Kant 1965). The imperative to treat every human being as an end has greatly influenced the idea of human dignity and it has also played an important role for Kantian practical ethics. For example; a person who lies to another person treats him or her as a means and not as an end. The same goes for a person who breaks a promise.

A problem with Kant’s practical ethics is that it does not guide us when duties conflict. It is according to Kant always wrong to lie. But sometimes the duty not to lie may come into conflict with other duties, for example the duty to help a person in despair. For example, imagine that you live under a dictatorship and a person in the resistance movement who is chased by the police look for shelter in your house. Acting according to the duty to help persons in danger and despair you let him stay and hide. However, soon after the police shows up and asks if you know where the person hides. What answer do you give to the police? Should you tell the truth or lie to help the person? To resolve duty conflicts there is a need for methods to prioritize duties and in the next section I will present two such methods.

Specification and prima facie duties

How should we resolve duty conflicts of the kind that we encountered in the last section? Philosopher Henry Richardson (2000) proposes a method that he calls “specification”. According to Richardson one can resolve duty conflicts by means of specification. Let me explain.

In the example above the duty to tell the truth comes into conflict with the duty to help a person in danger. Which duty has priority? Let us assume that in this situation the duty to help the chased person takes priority. Both the imperative of universalisation and of treating a human being as an end supports this alternative. Then the duty to tell the truth can be specified in the following way: “One should always tell the truth, *except* when this implies that an innocent human being will be seriously harmed or killed”. The duty to tell the truth is then specified so that it can guide and justify actions of this kind.

The British philosopher W D Ross (1988) has proposed another method for solving duty conflicts. According to Ross one can distinguish between *prima facie* duties and actual duties. *Prima facie* duties are the duties that are integrated in our moral view, that are binding and that we refer to when confronted with a moral dilemma. When we in a particular situation must make a choice, one of the conflicting *prima facie* duties will take precedence. This duty is then the actual duty. According to Ross, the *prima facie* duty that will turn out to be the actual duty in a particular situation is decided with the help of our intuition. Thus, when the police inquire if you know where the chased member of the resistance movement is hiding, your intuition will decide which *prima facie* duty – to tell the truth or help a person in danger is the actual duty.

If one wants to base morality on reasons, Ross' reference to intuition is unsatisfactory. When one refers to intuition argumentation is no longer possible. On the other hand, perhaps Ross' theory illustrates that we eventually in our moral argumentation will reach a point when we must refer to intuitions or some other basic point of reference.

Contract theory and justice

Games like Backgammon, Mah Jong and Chess are based on rules. Those who play the games are expected to know the rules and act accordingly. When someone chose not to follow the rules the game breaks down. This, in its turn also hit the other players while the point of the game is lost. Perhaps is a society also based on some rules? And perhaps it is in each citizen's self-interest to act according to the rules?

The idea that a society is based on rules and that it is in each citizen's interest to follow them is a basic assumption for contract theories. This idea dates to European 17th and 18th Century social philosophers, for example Thomas Hobbes, John Locke and Jean Jacques Rousseau.

For Hobbes, the point of departure is the struggle for survival characteristic of the state of nature. It is in everyone's interest to overcome chaos and to achieve social order. Therefore, everyone can agree to the establishment of a state that can preserve law and order and suppress conflicts between individuals and groups. John Locke has a more positive view of the state of nature. According to Locke, nature is given in common to mankind and everyone has the freedom to acquire what he or she needs for survival. However, there is a potential conflict over property rights which creates a need of a state with means to regulate and enforce property rights. Rousseau takes his point of departure in the question of how to reconcile individual interests with social decision-making. He favours a model of participatory democracy that implies that the citizens have a direct control of social decision-making. According to Rousseau, majority decisions express the common will which every citizen must adjust to.

In modern social and political ethics, one finds a variety of contract theories, but I will limit my presentation to the American philosopher John Rawls's influential theory. In his book *A Theory of Justice* (1971), Rawls grounds his theory of justice in a contract. The idea of "a natural lottery" is one of Rawls's points of departure. No one chooses his or her mother and father and we are all born with different genetically and social conditions. This "natural lottery" leads to inequality, and the purpose of justice is according to Rawls to compensate for bad luck in the natural lottery.

Many moral conflicts have to do with how scarce resources should be distributed. There is a need for principles of just distribution that everyone can agree on. To construct such principles, we should imagine a situation, the Original position, when we are ignorant of our own social position in the real society. We do not know if we are peasant or landlord, worker or manager, man or woman in the society we live in. We should take on, Rawls suggests, a "veil of ignorance" hiding our social position.

When we decide on basic principles of justice under the veil of ignorance, it is rational to follow the “maximin rule”. This means that one chooses a principle that maximizes the outcome for the least advantaged in the real society. The reason is that you can belong to that group yourself, that you do not know under the veil of ignorance. That justice implies that the interest of the least advantaged is taken care of is not only rational but also, according to Rawls, consistent with our sense of justice.

Rawls’s theory contains both principles for how liberties are distributed in society, i.e. the political basis for justice, and for distribution of primary good such as material resources. His first principle of justice reads:

- (1) Every person shall have the same right to the most extensive system of fundamental freedoms, consistent with a similar system of liberty for all.

It is in everybody's interest to make sure that one’s freedom is not limited by anything other than freedom of others.

Rawls’s comprehensive principle for distribution of social values, the so-called difference principle, reads as follows:

- (2) All social values – freedom, opportunity, income and wealth, and self-respect – should be distributed equally unless a different allocation of any or all of the values conducive to the worst asked (1971, p. 303).

Individual freedom, i.e. the individuals’ opportunities to influence their lives and the society, as well as the possibilities for individuals to develop their potentials in society are key values for Rawls. Hence, it is according to Rawls never right to restrict any citizen's freedom and opportunities on the grounds that it benefits society at large. From Rawls’s principles of justice also follows that distributions of what is valuable in a society must benefit the least advantaged, i.e. the poor and powerless persons. This can be done by transferring resources to them through taxation. But it can also be done if people who are particularly productive are rewarded on the condition that their efforts will improve the economy of the entire society, which also benefits the least advantaged.

Has Rawls managed to articulate a tenable theory of justice? One could question whether it really is consistent with justice that the particularly enterprising persons shall be eligible for benefits to make more efforts, which in line with Rawls’s thinking also will benefit the least advantaged. Should they not try anyway? Is it not a basic requirement of a just society that everyone produces according to his or her capacity without expecting compensation; “from each according his ability, to each according to his needs”, as Marx stated? And is really the inequality that may arise by the enterprising persons getting special benefits consistent with justice (Cohen, 2009)?

Justice and pluralism

Traditionally, societies are homogenous with shared values. Today, there has been a change. Many societies are pluralistic and multicultural, and their citizens have different religious and ethnic backgrounds. Can we expect to reach a consensus on the meaning of justice in pluralistic societies or are the views too diverse? In his book *Political Liberalism* (1993) Rawls raises this question. Pluralism is a fact and people living in a society have divergent religious, cultural and moral views. Pluralism often leads to serious social conflicts and, sometimes, even to civil war. Some societies have managed to achieve a peaceful coexistence between different cultural and religious groups. Tolerance, however, is not a sufficient basis for a stable society. One should go a step further, says Rawls, and ask whether it is possible to find a common denominator transcending different worldviews.

Even in this case Rawls refers to a contract. He imagines that representatives of different religions and worldviews will come together and under a veil of ignorance choose principles

of justice. Rawls believes that it is possible to achieve an “overlapping consensus” around his principles of justice (see above). There are some shared values transcending different religious and ideological backgrounds.

But is not Rawls too optimistic when he believes that it is possible to achieve such a consensus about justice? Rawls does not argue that all views will be covered by an overlapping consensus. Acceptance of reciprocity is a fundamental requirement, Rawls argues. Some religious fundamentalists think they have the whole truth and are not prepared to respect other’s beliefs and values. Hence, they do not accept reciprocity. Therefore, Rawls limits the possibility of consensus to reasonable and rational beliefs.

Global justice

The natural lottery determines not only who happens to be our parents, but also where in the world we happen to be born. There are reasons to reflect on what justice means in a global perspective. A further reason to reflect on global justice is that peoples are increasingly becoming interdependent through globalization. This is illustrated by recent global crises. For example, the climate crisis is caused by overproduction and overconsumption in the wealthy part of the world, which among other things have led to the dissemination of large quantities of carbon dioxide. The victims are so far mainly people in the poorest countries, for example, by flooding in Bangladesh and desertification in parts of Africa.

The financial crisis spread like a wildfire across the world at the end of the 2000s decade. People buying real estates without sufficient financial resources and banks’ lending without security in the United States, lead to the stock fall in Tokyo and other global metropolis and finally to a global economic crisis. Similarly, are the US and Israeli attacks on Iran 2026 threatening global stability and the world economy.

A hunger crisis in Africa and Asia in 2007 was partly a result of the replacement of food production by the production of biofuel in Brazil and other places. A lesson from the recent global crises is that we have become world citizens and that we are dependent on each other. Globalization thus challenges our notion of justice and raises the question what global justice would imply.

Theories of rights

Rights mean roughly the same as legitimate claims that are matched by others’ obligations. This means that if we argue that person A has a right, other people (B and C) or social institutions have obligations to respect person A's right. Legal rights are codified in the law, for example the right to buy alcohol in Sweden when you are 18 years.

Basic human needs is one basis for moral rights. Philosopher Alan Gewirth argues that freedom is a necessary condition for human action and action is an inevitable part of human nature (Gewirth 1978). Health and nutrition are other necessary conditions for human survival and development. With these assumptions as a foundation, Gewirth argues that freedom, health and nutrition are basic human rights. This implies that every person has a right to freedom, health and nutrition and others - including states - have obligations to do what they can to protect and promote these rights. Are there perhaps also other basic needs that form a basis for rights?

Human rights and human dignity

The preamble to the 1948 United Nations Declaration of Human Rights (UDHR) states that “All human beings are born free and equal in dignity and rights” (§1), and “everyone has the right to life, liberty and security of person”.

There is a broad consensus on the meaning of human rights. Human rights are moral claims of particular importance. Human rights are universal. They belong to every individual

human being irrespective of nationality, race or sex. Human rights are equal; no human being has more human rights than any other.

In the evolution of human rights thinking, the 1948 UN Declaration of Human Rights (UDHR) is of special importance. The declaration collected, demarcated, systematized and ordered human rights. Since the UDHR there has been a development of human rights thinking in different directions. There is one line going from “sounds to things” and insisting that human rights need to be implemented by legally binding member states to covenants. Thus, for example, in 1976 the Covenant on Civil and Political Rights and the Covenant on Economic, Social and Cultural Rights came into force. There is also a regional and cultural dissemination of human rights declarations. For example, in 1990 the Organisation of Islamic States adopted the so-called Cairo Declaration of Human Rights in Islam, and in 2000 the European Union adopted the European Union Charter of Fundamental Human Rights. So far so good! However, there is a huge gap between declarations and practice. Human Rights Watch report on daily violations of civil and political human rights (<http://www.hrw.org/>). Although the Covenant on Economic, Social and Cultural Rights is signed by more than 150 states, parts of the world’s population are stricken by poverty, diseases and illiteracy. According to UNICEF each year more than 5 million children - 14 000 per day - die before the age of five of starvation and preventable illness. Although improving, still 15% of the world’s population is illiterate and about 700 million people survive on \$2 per day. The global gap between the wealthy and the poor is widening; Oxfam reports the world’s 12 richest billionaires own more wealth than the poorest half of humanity (over four billion people).

Human needs, capabilities and human rights

As we noticed, according to philosopher Georg Henrik von Wright, “A being needs what it is bad (harmful) for it to be without”. What a human being need is, according to von Wright, not a subjective but an objective thing. In this way von Wright distinguishes between what is needed and what is wanted. For human beings, as for animals, it is bad to be without air, nutrition and liquid, hence a human being needs these things. However, there are also specific human needs like community and love.

In a similar vein, philosophers Amartya Sen and Martha Nussbaum develop the concept of capabilities. To be adequately nourished and in good health are aspects of human functioning, Sen writes. Capability is related to the person’s way or possibility to function. Although capabilities may differ between different human beings, there are also several capabilities that are basic and common for all human beings. Nussbaum has made a well-known list with suggestions of such common capabilities. These are, according to Nussbaum also a basis for human rights (Sen, 1995, 1999, Nussbaum 2000).

Human rights as universal moral standards

Is there a prospect of recognising human rights as universal moral standards or do peoples have different culturally shaped concepts of rights and justice? But what does it mean that a right is contextual or culturally bound? First, it can mean that the right has its origin in a specific culture. Then, the focus is on history. A right is seen as contextual in the sense that it can be traced to a specific religious or philosophical tradition. Secondly, it can mean that different societies provide more or less favourable cultural or political conditions for the implementation of a right. For example, the right to free speech may be easier to implement in a democratic than in a totalitarian society. Third, it can mean that a right is accepted by the larger parts of the population in one society than in another. Due to such factors as illiteracy and ignorance, a right that is widely supported in one society may not even be known by people in another society. Finally, the idea that a right is contextual can be interpreted as a claim that it is valid or justified in one society but not in another. Then, there are reasons to support and try to fulfil the right in one society but not in another. While the first three views

are different versions of cultural descriptive relativism, the final view is a version of cultural normative relativism. The claim is here not only based on empirical assumptions, but it states a view about what is right and wrong. Few ethicists support cultural normative relativism, and it has been forcefully rejected, for example by philosopher James Rachels (Rachels, 1999).

There are good reasons to see human rights as universal. Human rights are as we saw based on views of human needs/capabilities/flourishing. Hence, if we can assume that there are needs etc. (physiological like nutrition, liquid etc. and social and psychological like agency, safety etc.) that are common to all human beings and not culturally specific, although they may be satisfied in different ways in different cultures, one may also assume that one can achieve a global consensus on at least several basic human rights.

The second argument is empirical. It is a mistake to see the idea of human rights as belonging to a specific moral, philosophical or religious tradition. The so-called “liberal values” of freedom, tolerance and equality are not tied to a liberal doctrine but its “constitutive elements” (Sen, 1999, 234) can be found in all the major cultural and religious traditions. Seemingly homogeneous and totalitarian cultures often have their dissidents that from an internal perspective question what appear to be shared illiberal community values. Mahatma Gandhi’s critique of the Indian caste system is perhaps the most telling example. Even though there is a link between the history of human rights and the Judeo-Christian tradition, there is also a link between the history of human rights and Muslim, Hindu and Buddhist traditions. No moral tradition has monopoly on human rights. This means that the first version of cultural descriptive relativism mentioned above is at best only partly true for human rights.

Is then the emphasis on human rights something that belongs to a Western morality and alien to the East? No, the moral content of rights is also found in Chinese philosophy argue Haiming Wen and William Keli’i Akina (Wen and Akina, 2012). Traditions are plural and “...historic and indigenous presence of human rights values within Chinese philosophy cannot be denied” (p. 388). Confucianism emphasises relationships; “filial piety”. In social relations between ruler and ruled, man and women, father and son, both parties should realise certain virtues and duties, like humanity, righteousness and faithfulness. The point of morality is to secure fulfilment of human needs. The same can be said of the realisation of rights. Rights are valid claims of persons to have their needs fulfilled. A difference between East and West is though that the Western human rights doctrine is more individualistic; individuals can claim rights, while the Chinese tradition is communal; it is in social relations that human rights are realised. From this angle, the Chinese moral tradition is similar to the ethical view called communitarianism to which we now turn.

Communitarianism

Communitarian philosophers argue that we are primarily social beings who cannot be separated from society. Our identities are socially determined. Rawls idea that principles of justice that are chosen under a veil of ignorance or in an imagined state of nature are thus unrealistic and unworkable in real, existing societies, according to communitarian philosophers.

According to Michael Sandel, ethical principles for society, such as principles of justice, must be based on shared social values. Sandel calls his theory "republicanism," a social theory that goes back to Aristotle's idea of the ancient "police", the city-state, as the place where people's common interests were settled and where virtues such as solidarity and community developed. According to Sandel, the difference between a liberal theory of Rawls’s kind and Republicanism is that the liberal theory assumes that human beings are "unencumbered," meaning "effortless" or "unmoved" by moral and social ties. Virtues as loyalty and solidarity are irrelevant for the liberal human being, Sandel claims. In contrast, in

Republican theory, belongingness and community are fundamental to political life and society. When these social values are missing, the society becomes fragmented and chaotic.

Communitarianism is based on a view of human being. Human identity is shaped in a social context and people are characterized by the social circumstances. It is also within the framework of a community and its tradition that perceptions of value and morality develop. The individual's identity as well as morality is thus rooted in a social community (MacIntyre 1985).

Communitarians emphasize the importance of shared virtues. Virtues develop within a community such as a nation, which shares a practice. The aim of the practice is to achieve certain goals. It is by developing their virtues as citizens that they contribute to the realization of the shared aims. Against this background, the communitarian philosopher Alasdair MacIntyre is critical of the market economy while it presupposes that individuals behave as isolated actors and are driven solely by rational self-interest.

What is the communitarian understanding of justice? According to Sandel, a theory of justice must fulfil the following two conditions. First, it must be based on a common understanding of the good and be developed in the context of a tradition or culture. Second, the theory should incorporate given ties and obligations that characterise an established community. Principles of justice that are formulated independently of a community lacks a social context and thus legitimacy.

There is a risk that communitarianism implies ethical relativism. Communitarians assume that principles of justice depend on the perception of the good in each society or in a particular ethical tradition. Consequently, principles of justice will be different in different societies. If we assume that there is such a close relationship between perceptions of justice and a particular social community, it becomes almost impossible to criticize injustices in a society from the outside. The critique can be refuted with the argument that it is irrelevant while it is not based on a shared understanding of values.

Communitarianism can also be criticized for locking people into cultural and ethnical groups that they might not want to belong to. Is it not desirable that individuals can choose their own path in life, their values and also the community they want to belong to? The individual precedes the community, not the other way around.

We saw earlier that Rawls tried to adapt his theory of justice to plural societies. What are the consequences of communitarianism for this type of societies? There is a risk for consolidation of group identities in opposition to other groups, and that this in turn leads to conflicts between ethnic groups rather than to understanding and dialogue.

Virtue ethics

Normative ethics also focuses on the question what characterises a good person. How can we develop our moral resources and capacities? What is a morally good person like? We then ask for good characters or virtues.

Virtues are central for Confucian ethics. A good society needs good citizens and therefore society has a duty to cultivate motivations. For Confucius, virtues are more important than laws. In the Analects (Lun Yu) he writes:

The Master said, "If the people be led by laws, and uniformly sought to be given them by punishments, they will try to avoid the punishment but have no sense of shame. If they be led by virtue, and uniformity sought to be given them by the rules of propriety, they will have a sense of shame, and moreover will become good" (Lun Yu 2.3)

Which virtues should then be developed? Confucius suggests several virtues, among them are benevolence (仁 Ren) and fairness primary virtues. Virtue ethics has also had a renaissance in Western ethics during the last decades, although interest in virtue ethics goes back to the

classical philosophers Aristotle, Thomas Aquinas and Kant. In recent times, philosopher Alasdair MacIntyre has developed a theory of virtue ethics. The concept of virtue presupposes a human practice and “internal goods”, according to MacIntyre. The internal goods are those goods that are constitutive of the practice. MacIntyre defines practice in the following way:

By practice I am going to mean any coherent and complex form of socially established cooperative human activity through which goals internal to that form of activity are realized in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity, with the result that human powers to achieve excellence, and human conceptions of the ends and goods involved, are systematically extended. (MacIntyre, 1982, p.187)

It is partly a cognitive process to learn the standards and goods of a particular practice. However, it is not sufficient to know about them, one also must internalize them. They should become an integrated part of a person’s character. Virtues are acquired traits of character, and MacIntyre writes;

A virtue is an acquired human quality the possession and exercise of which tends to enable us to achieve those goods which are internal to practices and the lack of which effectively prevents us from achieving any such goods (ibid, p. 191).

Feminist ethics

The point of departure for feminist ethics is that ethical theories to a large extent are based on men’s life experiences. We can easily see from the presentation of ethical theories above that they are developed by men and that the history of ethics is mainly mirroring men’s history.

Psychologist Carol Gilligan (1982) questioned the dominant male perspective on ethics and has inspired feminist ethics. When she studied theories of moral development, for example Lawrence Kohlberg’s very influential theory of moral development, she found that they were mainly based on how boys and men react. According to Kohlberg’s theory, moral development goes through six stages, from the small child’s egocentrism to the highest stage when a right action is based on universal ethical principles. A natural moral development was represented by men. Therefore, the theory depreciated women’s moral development. According to Gilligan’s own experiments, women’s moral development differed from men’s and was characterized by empathy, closeness and contextuality. For women, morality did not primarily mean acting in accordance to certain moral principles but to take responsibility for those human beings who were affected by an action. Gilligan concluded that Kohlberg’s model for moral development was limited to a male perspective. Male behaviour was generalized and seen as natural behaviour.

Feminist ethics has developed in different directions since Gilligan published her groundbreaking article. According to one view called “Care ethics”, ethics is based on closed relations (Noddings 1986). We can only have moral relations with people whom we are close to. Closeness and care arise in the encounter of another person. Care ethics has greatly influenced the professional ethics of nurses. However, one can ask, are only those persons close to us worthy of our care? Noddings’ care ethics could be criticised on the ground that it limits our moral responsibility to people we happen to meet. This could imply that we have no responsibility for people at a distance, but who nevertheless need our assistance.

Inequality between men and women is another starting point for feminist ethics. Commonly, men are generally better educated and have a better wage than women. Women are also victims of different kinds of oppression. In many societies, boys are more welcome than girls, women are victims of violence and infringed in different ways. Subjection of women do also limit women’s freedom. A woman who is dependent on her husband has scant options to act according to her own wishes. A woman who is afraid of being attacked in the

night cannot choose to visit the places she wants or participate in activities that she wishes. Inequality between the sexes implies less freedom for women.

From this background, feminist ethicists have also contributed to the discussion on justice. Iris Marion Young is critical of Rawls's theory which, according to Young, narrows the meaning of justice. Justice is not only about distribution of primary goods. It is also about how the economy is organized and how visible and invisible power structures, and then not least patriarchal structures, form people's lives. Young illustrates her argument with an example. Despite great efforts to get more women involved in business, the number of female managers is still very low. How can this be explained?

We are inclined to ask: what is going on here? Why is this general pattern reproduced even in the face of conscious efforts to change it? Answering this question entails evaluation of a matrix of rules, attitudes, interactions, and policies as a social process that produces and reproduces that pattern. An adequate conception of justice must be able to understand and evaluate the processes as well as the patterns (Young 1990, p. 29)

When Young herself tries to develop a theory of justice she starts in existing injustices like exploitation in work, marginalization of vulnerable groups, among them women, powerlessness and violence. Justice is done when institutional violence and marginalization come to an end.

Nodding and Young represent different views within feminist ethics. Nodding emphasizes female traits like care and concern and wants to upgrade them. She represents a "specific kind perspective"; women are different than men but that should not imply inequality. Young on the other hand argues that the goal is to dissolve social and economic structures that prevent equality between men and women. She represents a "same kind perspective"; women and men are similar and therefore they should also be treated similar.

These examples illustrate that feminist ethics has revealed experiences and perspectives that were hidden in the ethical discussion and they have pointed at injustices and oppression that ethicists earlier have neglected. In this way feminist ethics has contributed to a vitalization and broadening of the ethical discourse.

Chapter 3. Applied and professional ethics

Case 1 The Whale

Whale hunting is a profitable business but has led to a lot of criticism in later years and Greenpeace and animal rights groups have tried to stop Japanese ships involved in the hunting. In a world with shortage of food whale meat could be a welcome addition. However, the critics say, this is a species that is near extinction, and the whales suffer before they die. But does animal suffering matter? Do whales have a right to life? Should we aim at preserve species? Why?

Case 2 The dam

A dam is going to be built in a distant part of the country covered with rain forest. The project will create many new jobs and provide the country with renewable energy. This will substitute coal that so far is used for generating energy leading to disseminations of CO₂-gases. However, at the place of the new dam lives an indigenous tribe and the tribe must be resettled. The land is the place where the tribe has their ancestors and the nature is sacred, according to their beliefs. Hence, resettlement will probably have devastating effects for the tribe members. Should the tribe be sacrificed for the possibility to get new energy?

Case 3 The neonate

New medical technology has made it possible to save the lives of foetuses born before the expected birth date. In fact, it is now possible to save foetuses already in week 22-24 of pregnancy. However, the new-borns have at that time not developed some of the organs yet and there is a great risk that they will get long life handicaps and there is also a risk for early death. Assume that the new-born catches pneumonia? Should it be saved by all means? Does it have a right to life or perhaps rather a right to a life with quality?

Case 4 The climate

CO₂ (carbone dioxide) emissions raise future temperature to dangerous levels according to the UN panel (UNFCCC). If the temperature raises +2-3 centigrade in 50 years this will lead to hundreds of million people hit by flooding, millions will die from malaria and dengue fever in Africa, desertification will increase and the polar ices melt. What do we owe future generations? Can we talk of intergenerational justice? And what are the implications for global justice; the industrial nations have caused the climate change, but the poor countries hare the present victims? Who should reduce their emissions?

Case 5 TRIPS

The acronym TRIPS stand for Trade Related Intellectual Property Rights. It was agreed in 1994 that rights to intellectual property, for example patents, should be protected world-wide and this protection is safeguarded by the World Trade Organization (WTO). As a consequence, the production of cheap medicines in India and Brazil for export to poor nations in Africa, Asia and Latin America stopped, and the prices of HIV-medicines rose to 100-200\$/month. Millions of people could no longer afford the medicines. Property rights came into conflict with the right to medicine, yes, to the right to life.

These five cases have in common that they all mirror crucial social questions, there are no simple answers, and they all represent value conflicts and conflicts of rights. Hence, they are all problems within applied ethics.

The development of applied ethics has had great significance for society as well as for philosophy. In this chapter I characterise this field of ethical inquiry. I also discuss its relation to social policy and to professional ethics. In the first part I address the following questions:

1. What is applied ethics?
2. When and why did applied ethics appear?

3. How do we do applied ethics? What are the methods?

In the second part I introduce professional ethics. What is professional ethics and how can one distinguish professional ethics from applied ethics? I argue that the moral content of professional ethics is a result of professional relations. I also argue that professional ethics best can be understood as a kind of virtue ethics.

Morality is a natural feature of human life. Human beings are social beings engaged in social interactions. As human beings we can hardly avoid making judgements about what is right and wrong, what one should do and what is valuable. We engage in ethics when we start to reflect on our moral judgements and actions; why is this right? What is the reason for this act? Can it be justified? Hence, ethics is the reflection on morality or - one might say - the theory of morality.

As human beings, we act in different capacities and in various social contexts such as health care, politics, work and school. In health care, moral issues are related to life and death and the well-being of humans. End of life decision: should we with all means possible retain life-saving functions? Should we introduce screening for genetic diseases? In politics, decisions often involve value conflicts. The decision maker – for example a politician or a civil servant - must choose an alternative that might promote one value at the expense of another. For example, economic growth at the expense of sustainability, individual freedom at the expense of equality etc. When we reflect on this kind of decision-making we are engaged in applied ethics. Hence, applied ethics is concerned with crucial aspects of human life and social issues

Applied Ethics

Applied ethics is the art – or science – to reflect on moral dilemmas and moral problems in different social contexts. One of the most influential philosophers in the field of applied ethics, James Childress defines applied ethics as follows:

The terms “applied ethics” and “practical ethics” are used interchangeable to indicate the application of ethics to special arenas of human activity, such as business, politics and medicine, and to particular problems, such as abortions. (Childress 1986)

The number of “special arenas” has constantly increased, and, hence, applied ethics is an expanding field. Medicine and health care was a starting point. It was followed by politics and business. Now more human activities are assessed from an ethical point of view: farming, animal breeding, technology etc. Lately I even came across a research project in “space ethics”!

Since the 1970^s applied ethics has developed as a discipline with numerous sub-disciplines: medical ethics, animal ethics, environmental ethics, business ethics, research ethics, technology and ethics, ICT-ethics, politics and ethics, etc, each with its own conferences, journals and academic associations.

However, one phrase in Childress’ definition should make us cautious. What does he mean when he says that applied ethics indicates “...the application of ethics to special arenas of human activity”? The expression mirrors perhaps a too simplified, deductive view of applied ethics. The view that applied ethics is just an application of ethical theory to practical problems has been questioned by many authors. In contrast, they stress that for the sake of relevance applied ethics presupposes interplay between theory and practice, experience and reflection and intuitions and principles.

Tom Beauchamp suggests the following definition of applied ethics: “... ‘applied ethics’ refers to any use of philosophical methods to treat moral problems, practices, and policies in the professions, technology, government, and the like” (Beauchamp 2003, p.3). But he adds that also other methods can be used. In this chapter I will show that research in applied ethics

needs a multiplicity of methods. I will not question Beauchamp's definition; it seems obvious that doing ethics implies using philosophical methods. However, from the background of the recent tendencies of multi-disciplinary research in applied ethics, it is necessary to use various methods to attain well-grounded conclusions.

When and why did applied ethics appear?

In a well-known expression, philosopher Stephen Toulmin wrote "Medicine saved the life of ethics" (Toulmin 1982). In the 1960^s the academic discipline of ethics was in decline. Most moral philosophers worked with conceptual and epistemological questions. Not many were engaged in normative ethics and even fewer bothered to analyse moral problems in the real world. Therefore, academic ethics was by many people considered as one of those peculiar philosophical subjects. In the beginning of the 1970^s the situation changed. Medicine saved the life of ethics; new and acute moral problems in medicine that had no ready-to-hand answers emerged. Ethicists were wanted!

There are different reasons behind the development of applied ethics. Let me mention three. During the 20th century, the Western world experienced a period of secularisation. Less and less people attended the churches and less and less people asked for moral advice from the Church. In the words of sociologist Max Weber there was a change from "moral heteronomy" when moral answers were provided by an authority, often the Church, to "moral autonomy" when the individual herself had to formulate an answer. And this development took place at a time when in medicine, as well as in other social arenas, new and difficult moral problems arose: should there be limits to pre-natal diagnostics? Should euthanasia be legalised? How should we deal with new genetic possibilities like stem cell research and human cloning?

A second, complementary explanation of the development of applied ethics relates to new moral problems facing the society because of new technologies. For example, in neo-natal intensive care, the lives of very early born babies could be saved. However, in many cases the babies were saved to a short and handicapped life. Where should the doctor draw a borderline? When should a baby be saved and when let to die? Another example from another field: through the development of computer technology, it became possible to store more and more information, including personal information about individuals. However, this development may threaten a right to privacy. How should one find the right balance between the need for information and the protection of privacy?

The problems mentioned are examples of "policy vacuums": we do not know how to handle the new situations, and we lack moral and legal concepts and principles to deal with them (Moor 1985). Thus, the rise of applied ethics is explained by a need to fill the policy vacuums.

Developments in social sciences and humanities often mirror social change. At the end of the 1960^s and the beginning of 1970^s the student movement and the New Left challenged the established society. There were heated discussions over topics such as the Vietnam War, social injustices and poverty in the Third world, inequality between men and women and the maltreatment of animals. Many philosophers were engaged in the discussions. From this perspective, the development of applied ethics can be seen as a philosophical response to new social challenges.

Three books

Let me illustrate the development of applied ethics in the 1970^s with three books published during the decade. They can still be considered as the three most important works in the modern history of applied ethics.

The first book is John Rawls's *A Theory of Justice* published in 1971. *A Theory of Justice* is a comprehensive and theoretical investigation of the meaning and justification of justice.

Partly in opposition to utilitarianism, Rawls argues for a neo-Kantian contract theory and ends up with two principles of justice that incorporate the meaning of justice. Furthermore, Rawls develops a method of justification of moral beliefs called “reflective equilibrium” that is still the most influential in the field. With the publication of *A Theory of Justice*, justice became a key issue in applied ethics. The comments and critiques of Rawls’s theory numbers of thousands.

The second contribution to applied ethics I will refer to is Peter Singer’s book *Practical Ethics*, published in 1979.¹ In *Practical Ethics* Singer discusses several topical moral issues from a utilitarian perspective. Among the issues discussed is war, poverty, abortion, euthanasia, treatment of animals etc. Singer argues in a compelling way, and he does not hesitate to draw radical and often also contra-intuitive conclusions. Singer’s critique of the principle of human dignity led to heated controversies and he was even for some years banned to speak publicly in Germany. This shows that applied ethics has a social impact!

The third book is a contribution to medical ethics that is considered as *the* modern classics in the field. One of the authors, Tom Beauchamp is a utilitarian philosopher, while the other, James Childress is a Kantian. One of the aims of the book *Principles of Biomedical Ethics*, first published in 1977 (and followed by numerous new editions), was to construct ethical principles at a mid-level acceptable for people belonging to different moral traditions, religious backgrounds and philosophies. Beauchamp and Childress proposed the following four principles for moral decision making in medicine: the principle of non-maleficence, the principle of beneficence, the principle of respect for autonomy and the principle of justice. Other authors have applied the four principles also to other areas in applied ethics, like research ethics and business ethics.

Common to these three works in applied ethics is that each of them in a profound way has influenced the discussion in applied ethics. They can thus be labelled “classics” in applied ethics.

Areas in applied ethics

We have seen a fast expansion of applied ethics the last decades and now it covers a broad field of subjects and problems. The following graph shows some of the main fields of applied ethics and how some fields have generated interests in new fields:

¹ Here one could also have mentioned Singer’s book *Animal Liberation*, appearing two years before, but *Practical Ethics* covers a wider spectrum of issues and has – I would argue - played a greater role. Besides, a chapter in *Practical Ethics* deals with the questions elaborated in *Animal Liberation*.

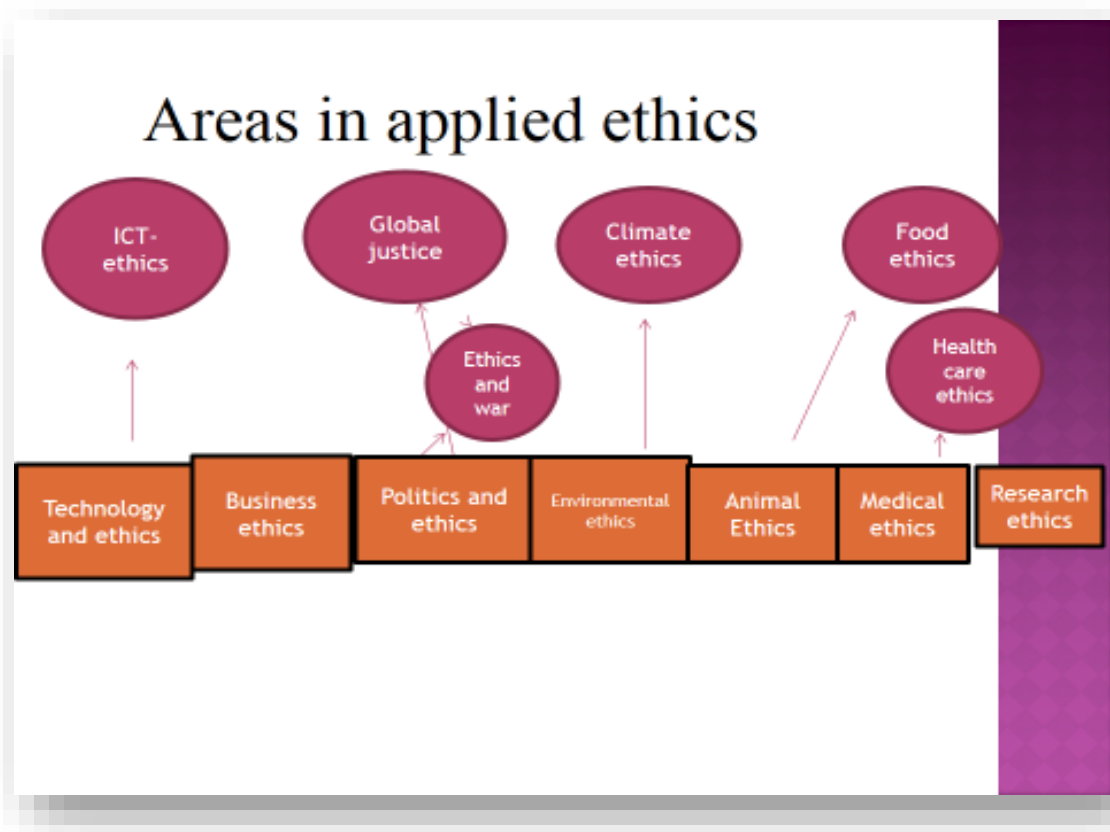


Figure 2. Areas in applied ethics.

Let me shortly comment the overview of different fields of applied ethics.

In the area Technology and Ethics, technology is assessed from an ethical point of view. Technology contributes in various ways to a good life. We can do things faster; for example, train, airplane and car help to speed up transports, and the PC helps us to write and publish faster. Technology can also help us do things more careful. For example, medical technologies like MRI scanner are helpful for observations and diagnosis. Technologies also help us to do new things; before the invention of the airplane, human beings could not fly and before the invention of television, we could not watch what happened at distant places. However, technologies can also be harmful. For example, the atom bomb has enormous destructive potentials, power plants run by coal and oil contribute to dissemination of climate gases and nuclear power plants pose risk for human safety. A growing area of study within technology and ethics is the ethics of information and communication technologies (ICT-ethics). On the one side, these technologies are helpful in many ways, but on the other hand, their use increases the risks for privacy violations and social vulnerability (see Chapter 4).

In Business Ethics, corporations' social responsibilities (CSR) are in the forefront. How can profit motives be balanced by corporate responsibility for the employees' safety and quality of work and what are corporations' duties *visavi* the environment?

One fundamental question for Politics and Ethics is what justice means; what are the characteristics of a just society? In addition, the meaning and value of democracy, freedom and rights are focused within the area of Politics and Ethics. Politics and ethics is also about war and peace: When are states justified to go to war (if ever?). What is the meaning of a just war? Justice is not only a question for nations but also a global issue. What does global justice mean in a world characterised by huge gaps between rich and poor? What are the moral

obligations of the wealthy nations? These are some questions discussed in the global justice-discussion (Kymlicka 2000, Brock 2009).

Within Environmental Ethics, human being's relation to nature is in focus. Does nature have an intrinsic value or is it an instrument for human well-being? Recently, the area of Climate ethics has become crucial. What are our obligations to future generations and what does climate justice mean in a world where the wealthy industrialised nations contribute to climate change, but the poor nations are the victims of the consequences?

Animal Ethics focuses on the questions of the rights of animals and what human beings are morally justified to do towards other animals. For example, are hunting and eating animals morally justified and is it OK to use animals for medical experimentation?

Medical and Health Care Ethics are by far the largest areas within applied ethics, engaging many ethicists, doctors and nurses. As Toulmin said, "Medicine saved the life of ethics". Within medical ethics, crucial ethical questions at the beginning and end of life are analysed, and in health care ethics patient's rights and the moral value of the relationships between care givers (doctors, nurses etc.) and patients are focused (Beauchamp and Childress 2003).

Different kinds of ethical problems are connected to research. For example, what are the moral requirements for doing research on human beings and animals? What does informed consent imply? Other questions discussed in Research Ethics is the responsibility of the researcher for the consequences of research and what research integrity means.

Applied ethics is as we can see an umbrella concept for many different inquiries of the nature and consequences of human and social actions.

What was new?

The turn to applied ethics took place in the 1970^s and 80^s. The turn implied that many philosophers changed their focus. Moral philosophers were traditionally engaged in analysing moral semantics and other issues in meta-ethics. Now, more philosophers worked with moral problems in society. However, the turn to applied ethics was not a turn away from issues in meta-ethics. The discussion about methods in applied ethics and theories of justification has been lively and different alternatives like "principlism", specificism, case-based theories (casuistics) and Rawls's theory of reflective equilibrium are developed.

The turn to applied ethics was a turn from descriptive ethics to normative ethics. Many early 20th century philosophers believed that work in ethics as a philosophical discipline should be restricted to describing and analysing concepts and theories. It was not appropriate for academic philosophers to engage in normative argumentation. For example, in his inaugural lecture 1911 the Swedish philosopher Axel Hägerström emphasised that "Moral philosophy should not be a subject in morality but a subject about morality" (Hägerström, 1996). Both Rawls and Singer took a different position: according to them it is for ethicists both possible and legitimate to take a stand in controversial issues. What is important is that one has good arguments!

However, one may still question if the turn to applied ethics in reality was something new. Brenda Almond argues that "...the inception of applied philosophy /including applied ethics/ coincides with that of the Western philosophical tradition as a whole" (Almond 2000, p.13). She mentions the pre-Socratic philosopher Thales (c.585 B.C.) as a pioneer in the field of ethics and economics! Other examples of important contributions to the history of applied ethics are works of Plato and Aristotle, philosophers who among other things worked in ethics and politics (for example, Plato: *The Republic*, Aristotle: *Politics*). Later philosophers engaged in applied ethics include Immanuel Kant, John Locke and John Stuart Mill, all of them inspiring authors for present-day ethicists.

Applied ethics also has its roots in theological ethics. As classical examples one can mention Augustine's (5th Century) and Aquinas's (13th Century) theories of a just war. The conditions they set up for a war to be just; that it must be fought with right intentions, waged

by a legitimate authority and aimed at redressing a wrong suffered, are still highly relevant in the present discussion on just war. Furthermore, Catholic and Protestant ethicists were among the first to engage in medical ethics

Methods

A method is a way to achieve or come closer to an end. Hence, what methods we use are dependent on what we want to achieve. In science the aim is to increase our knowledge. Something similar can be said of applied ethics. The ethical inquiry is a way to increase our knowledge – or at least insights - of ethical issues.

As a starting point any kind of ethical inquiry depends on conceptual clarity and careful assessment of arguments. We need to know what the relevant views are concerning the question for inquiry. A critical interpretation of different views may be a sufficient aim in applied ethics. It is an end to know of how different views are constructed.

However, inquiries in applied ethics often concerns social practices and institutions and the aim is to find a well-argued position to act. For this purpose, philosophical methods are not sufficient. We also need relevant information and methods from other disciplines.

Methods in applied ethics vary depending on what is the question for inquiry. The aim of inquiries in applied ethics is to come to justified moral positions or judgments regarding individual cases or principles. I will illustrate how to come to a position in applied ethics the case of the dam:

Case: The dam

A dam is going to be built in a distant part of the country covered with rain forest. The project will create many new jobs and provide the country with renewable energy. This will substitute coal that so far is used for generating energy leading to disseminations of CO₂-gases. However, at the place of the new dam lives an indigenous tribe and the tribe has to be resettled. The land is the place where the tribe has their ancestors and the nature is sacred, according to their beliefs. Hence, resettlement will probably have devastating effects for the tribe members. Should the tribe be sacrificed for the possibility to get new energy?

As was explained in Chapter 2, an ethical analysis must start with relevant **facts**. How will the dam increase “green” energy supply limit the emission of CO₂-gases? How many will be employed? How will the indigenous people living in the area be affected? How will the dam affect the landscape? Any other possible consequences?

Who are the **stakeholders**? The indigenous peoples, the potential workers, the people who gets energy, the government (local and central). Any other?

What then are the relevant **ethical principles**? Principles like Protect the environment, Respect indigenous peoples and Justice are relevant for the decision making. Any other?

According to utilitarianism, when making moral decisions, one should choose according to a *principle of utility*, i.e. choose the alternative action that, compared with other alternatives, will increase the amount of pleasure and/or decrease the amount of pain in the world. Thus, a utilitarian would ask which alternative action maximises utility.

To summarise the ethical method for decision making:

1. Identify relevant facts and stakeholders
2. Identify consequences and probability of different alternative actions
3. Identify relevant ethical principles
4. Relate the case to the relevant ethical principles
5. Decide

Professional ethics

Professional ethics emanates from moral reflection in work. There is a relation between applied ethics and professional ethics. One might even say that professional ethics mirrors

applied ethics. Professional ethics of for example engineers has its counterpart in technology and ethics, professional ethics of doctors and nurses has its counterpart in medical and health care ethics, professional ethics of businessmen has its counterpart in business ethics etc. However, there are also differences between professional ethics and applied ethics. Professional ethics has its basis in the practice of a profession while applied ethics primarily is an academic endeavour.

Professional ethics is the ethics of professional life or the ethics of work. Work can be defined as activity resulting in products or services done for payment. What is then the difference between professional work and non-professional work? The following distinguishing criteria of professions are often mentioned:

1. academic education,
2. importance of services provided,
3. professional degree
4. professional association
5. autonomy
6. ethical code/code of conduct.

From an ethical point of view, in particular the fifth criterion, autonomy, is important. For example, work at an assembly line is not autonomous but instead managed by other persons, for example by a manager or an engineer. The worker lacks autonomy. Hence, he or she rarely makes any decisions or confronts ethical dilemmas in work. In contrast, a doctor takes during a workday many decisions about diagnosis and treatments that are crucial for the life and well-being of the patients.

However, one should not exaggerate the distinction between professional and non-professional work. In respect to autonomy the differences are diminishing in modern work life. On the one hand, more works are professionalized according to the above criteria. For example, due to modernisation and advanced technology higher education is nowadays needed for many blue-collar workers and their self-determination increases. On the other hand, there is a parallel development in the opposite direction towards less autonomy for many traditional professions. For example, health care policies and regulations more restrict the autonomy of doctors in public health care.

What is then the moral content of professional ethics? First, there are moral norms and duties that are common to all or at least to most works. These can be divided according to professionals' relations:

1. Relations to people dependent on professional work and service.
2. These relations include for example relations between teacher and pupil, engineer and user, doctor and patient, salesmen and customer and they generate professional moral norms like honesty, fidelity, care and safety.
3. Relations to workmates.
4. Almost all employees have workmates and colleagues. The relation between workmates generates professional moral norms of loyalty and solidarity.
5. Relations to employers.

Much professional work is done as employment regulated by a contract. A professional stands in a relation to an employer. Even these relations generate moral norms, for example loyalty and confidentiality.

Thus, different kinds of professional relations generate different moral norms. These norms provide a basic moral framework of a profession. However, the norms are valid *prima facie*. If the professional moral norm conflict with other moral norms, for example with common morality, they may be overridden. Let me give some examples of this kind of norm conflicts:

Assume a lawyer who has a special obligation to defend his or her client. The client is accused of preparation for murder. However, the evidence is not waterproof, and the lawyer

has a chance to get the accused free. At the same time, the lawyer is convinced that if the accused person is set free, he will realise his plans. How should the lawyer act? Should she try to get the client free? The example illustrates a conflict between on the one hand the lawyer's loyalty towards a client and on the other hand general moral norms to protect human life.

Even norms generated by a relation to an employer might come into conflict with external moral norms, which is illustrated by the following example. An engineer finds out that her company in secret is dumping waste in a neighbouring lake. Should she inform the authorities even at the cost of being accused of not being loyal to the employer? Here the norm of loyalty to one's employer conflicts with a general norm to avoid harm.

The conflicts between professional norms and ordinary morality may be difficult to solve. In this situation it is helpful to have a professional organisation to consult, assuming of course that the professional organisation has a conscious ethical profile. Parallel to an increased interest in professional ethics, more professional organisations have formulated their professional codes of ethics.

The oldest and most well-known professional code is the Hippocratic Oath for doctors from the 4th Century B C. It states that "I /the doctor/ will prescribe regimens for the good of my patients according to my ability and my judgement and never do harm to anyone." The Hippocratic Oath is still the basis for doctors' professional ethics, although some of the content is changed.

A professional code of ethics normally contains two parts. In one part, often an introduction, the common goal of the profession is stated. For example, the code of ethics of the Swedish Association of Engineers begins with the following statement:

"The duty of the engineer is to improve technology and technical knowledge towards more efficient use of resources without detrimental effects".

A second part contains rules for behaviour. For example, the Swedish Code of Ethics for Occupational Therapists states that occupational therapists work "...to improve the capability of patients to live a worthwhile life in accordance with their wishes and needs and in relation to the demands of society." A paragraph dealing with patient relations states:

"The patient/client is entitled to be *treated with respect*, which means that:
The therapist shall respect the right of the patient/client to a private life.
The therapist shall obtain such information only as is necessary for the treatment."

What, then, is the purpose and function of a professional ethical code? First, it can help and guide professionals facing difficult moral decisions. Secondly, it is a reference for those professionals who want to act morally correct. When finding that a colleague is acting morally wrong, a code of ethics is a point of reference. Thirdly, a code can improve the professional ethical standard. That presumes however that there is an on-going discussion about the code. (At the end of this book you will find some examples of ethical codes).

Professional ethics as virtue ethics

Professional ethics is developed within a community of professionals. For older and established professions, professional ethics is the result of a tradition of moral thinking. A fundamental question is how to characterise a "good doctor" or a "good lawyer". From this angle, professional ethics can be described as a kind of virtue ethics.

We saw in Chapter 2 that Alasdair MacIntyre relates virtues to a practice. Let us now apply MacIntyre's concepts to professional ethics. A profession is a kind of "practice". Accordingly, there are standards of excellences and internal goods that are definitive of a profession. In her work, a professional aims at realising these standards and goods. They are also giving legitimacy to a particular profession while they answer the question: what is the point or aim of the profession? For example, what is the point of engineering? Engineers

could – in line with the Swedish Engineers’ code of ethics - answer: the aim of engineering is “...to improve technology and technical knowledge towards more efficient use of resources without detrimental effects”.

Hence, in accordance with our application of MacIntyre’s concepts to professional ethics, professional virtues are those virtues that are necessary in order to realise the standards and goods of a profession. The “good” or virtuous professional is the one who has the capacity as well as the desire to live up to the standards to make the right decision in problematic moral situations. This capacity is acquired through reflective practice.²

A Case

Five years after his exam computer scientist John Harris works in a company producing robots; Missiles Inc. When he on an occasion substitutes a colleague, he discovers a signal that could imply that something is wrong with the regulatory system. This could lead to steering problems and cause severe damages. He tells another colleague of his suspicions but he only says; “it’s too late, the system is already up for delivery”.

What should Harris do?

- A) nothing (it is not his project)*
- B) Speak to the company manager*
- C) Call a newspaper*

John Harris told a manager, and the project was stopped, delayed and Missiles Inc had to pay a big sum of money as compensation. No wrongs were found. The manager phones Harris and said: “You have no future in this company”

Did Harris the right thing? Yes or no

Conclusion

Applied ethics is an academic discipline analysing moral problems in different social arenas. Applied ethics is often done in collaboration between philosophers and scholars from other disciplines and together with professionals that are affected by the moral problem. The development of professional ethics is, on the other hand, a response to moral problems facing professionals in their work.

The turn to applied ethics can basically be explained by three factors. First, due to secularisation there are no longer any given moral authorities. Individuals take autonomous moral decisions and there is a demand for expertise in applied ethics. Second, through new technologies for example in health care, society faces new and difficult moral problems. There is a need for a public discussion on how to handle the new moral dilemmas. Third, many people are engaged in struggles for social justice, sustainability, animal rights and other causes. Applied ethics can contribute to the understanding of this kind of topical social and political issues.

Professional ethics mirrors applied ethics but emanates from moral experiences of professionals in their work. For example, health care professionals reflect on moral problems in medicine, engineers on the consequences of new technologies etc. There is a need for common moral grounds among professionals, and the development of professional codes is one way to formulate rules of behaviour together with co-professionals.

² An earlier version of this chapter was included in *Perspectives on Applied Ethics*, ed. Göran Collste, Studies in Applied Ethics, 10, 2007, The Centre for Applied Ethics, Linköping University.

Professional ethics can also be seen as a kind of virtue ethics. From this angle, the aim of professional ethics is to develop the professional's moral character so that her capacity to act according to reason and morality increases.

Chapter 4. Technology and ethics

If anything can be said to characterise the present age, it is constant change. One of the main drives for change is technology. We continuously find ourselves in new worlds that offer us new possibilities but also place new demands on us. However, are we just puppets on the technologically driven strings? Are there any ways for us to ethically assess, control and perhaps even shape new technologies? In this chapter, I will discuss these questions in the context of a specific, emerging and revolutionary technology: ambient computing for personal health monitoring. A synthesis of information and communication technologies and monitoring devices will create a new networked home environment. According to the advocates of the new technology, this advance will transform health care and move medicine from the hospital to the home.

The chapter will first deal with the general problem of assessing emergent technologies from an ethical point of view. Secondly, it will illustrate the assessment of technologies with the example of ambient computing and personal health monitoring. In the case of personal health care monitoring and ambient computing, there are several possible benefits, such as providing rapid response in case of emergency so that patients are not tied to hospitals and may stay longer in their homes. This method of monitoring potentially allows underprivileged regions to have internet access to medical expertise.

Still, the new medical landscape also raises several ethical questions. Will the emerging technologies pose a threat to patient privacy, personal autonomy, the relation between doctor and patient and perhaps even to personal identity?

These ethical questions also draw attention to the conditions for ethical assessment of technology. Though technology might be possible to assess and influence at an early stage of development, the consequences are still uncertain at that time. At a later stage of development, the consequences are better known, including the non-intended and unpredictable consequences. However, the technology is set and more difficult to influence.

In the final part the question of ethical technology assessment will be discussed, as well as the possibilities of interactive technology assessment and value integrated technology design.

Social constructivism and assessment of emergent technologies

Different methods for ethical assessment of technology have been developed (Reuzel, 2001, Schot, 2001). However, normally the objects for technology assessment are existing technologies, and the assessment focuses on – for example – their social or environmental impacts.

As emphasised by the theory of philosophy of technology called social constructivism, technology is developed in interrelation with the social environment. New technology shapes but is also shaped by the social system. Horner argues: “We always have before us the reality of choice in the sense that we could do or have done otherwise” (Horner, 2005, 226).

There are different lessons learned by the theory of social constructivism. The theory is a reaction against deterministic views of technology. According to technological determinism, the development of technology is autonomous and fixed. We can take the production of a computer and a refrigerator as examples. At first, there is a demand to do something, i.e. processing information, or cooling food down. The new technologies, in this case a computer and a refrigerator, are produced to meet the demands. At the end of the construction process the final artefacts, i.e. the computer and the refrigerator, appear as the only possible technical solutions. They give the impression that there was only one way to technically construct the artefacts. As Andrew Feenberg express this image: “Looking back from the later standpoint,

the artefact appears purely technical, even inevitable. This is the source of the deterministic illusion” (Feenberg, 1999, p.11).

In contrast to technological determinism, social constructivism insists that new technology is the result of social interests, power and choices. The theory has both informative and constructive implications. It informs us that technologies are not neutral but instead serve the interests of some institutions and social groups. However, the insights may also have constructive and normative implications. If we are aware of the fact that a technology is not fixed but may be shaped according to our needs and values, technological development becomes an ethical challenge. The process of technological construction is intimately connected to questions of what constitutes a good life, and which values we want to realise.

Let me illustrate the social constructive view with two historic examples of emerged technologies. The first example relates to the early introduction of expert systems in health care. Computer assisted expert systems was introduced to support complicated decision-making in health care in the 1980s and 1990s. An example of this reality is expert systems for internal medicine. One of the most famous expert systems for internal medicine was INTERNIST-1. This computer program assisted doctors in making diagnoses. A doctor facing a diagnostic problem could transfer the relevant patient information to the program. However, after some years of using this program, the designers of the expert system believed that it functioned as a “Greek Oracle.” The consultant program seemed to possess “superhuman reasoning capabilities,” making the doctor a passive user instead of an effective decision-maker. As an alternative, they developed a system called Qualitative Medical Reference (QMR). This system was designed to support the doctor’s *own* diagnostic reasoning while helping him or her overcome particular difficult steps (Miller and Masarie, 1990, see also Wachtel et al, 2017).

From the perspective of social constructivism, the differences between the two systems may be described in the following way. The overriding values behind INTERNIST-1 were efficiency and expertise. The purpose of the system was to function as an “expert” on diagnosis. In contrast, in the design of QMR, the values of autonomy and responsibility were already included in the design process of the new system. This new system should facilitate the ethical behaviour of doctors by making room for both the autonomy and the responsibility of doctors in the whole diagnostic process.

Another example of how values are integrated into technological design is illustrated by surveillance by cameras in public places. Nowadays, camera surveillance of squares, shopping malls, taxis, and other places are commonplace. However, with the introduction and subsequent growth of camera surveillance, critics worried about the threats to privacy. Now, the cameras can be constructed in different ways. The ordinary way was for the camera to continuously record the public space. But it was also possible to arrange the recording so that under normal conditions the human faces were not recognisable. However, if something unusual occurred, such as an assault or a burglary, technology made it possible to catch the perpetrators because a visual image of their faces was recorded. In line with social constructivism, one may say that the value of privacy was built into the cameras. If human faces are not recognisable, privacy violations are limited.

A further problem with technology assessment is that new technological systems have both unintended results and side effects that often are important from an ethical point of view. For example, in the 1980s and 1990s, computerisation of health care made it possible to store huge amounts of patient information. In the computerised patient records, diagnoses and therapies were recorded more easily than in the paper form used earlier. The intended and partly achieved effect was to store and handle patient information more efficiently. However, sensitive personal information was also easily accessible for people who had no right to access the information. Besides the intended effects of facilitating the handling of huge

amount of information, the increased vulnerability of privacy protection was an unintended effect of the new system.

Technology is the result of 1) intentions, 2) designs, and 3) forms of production. These intentions, designs, and forms of production can be assessed from different aspects. Furthermore, the technology has effects that can be direct or indirect. The technology may cause something that in its turn has an effect, etc. These (direct and indirect) effects may be intended or unintended. Furthermore, the effects may also be unforeseen. These intended, unintended and unforeseen effects can be assessed from different perspectives, e.g. from an ethical point of view. The following model illustrates how technology is assessed as both a process from intention to use (left oval) and as a causative factor producing different kind of effects.

Assessment of technology

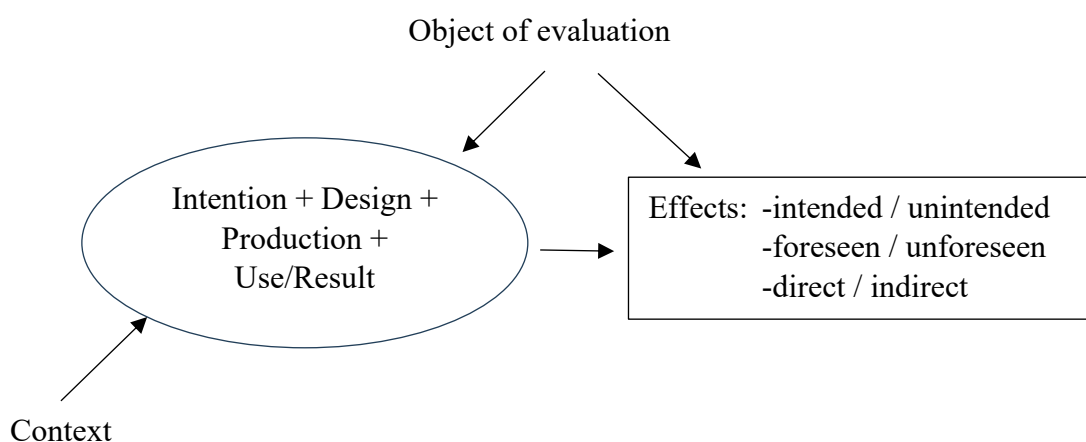


Figure 3. Assessment of technology.

The diagram can be used to illustrate the example of computerised patient records. The context is, of course, health care. Objects for evaluation in the left oval are the *intention* to create the new systems. We can assume that this intention is valued positively; the idea is to facilitate the management of patient records. The system can be *designed* in different ways, and the *production* process can be valued according to its environmental impact. Finally, the *result* will be a system that works according to the intentions, such as facilitating the handling of sensitive information such as patient records.

We now turn to the right rectangle. What are the effects of the new systems? We assume that the *intended*, *foreseen* and *direct* effects are more efficient ways to aid and treat patients. This, then, are positive values of the new system. However, an *unintended*, *indirect* and perhaps also *unforeseen* effect is the decreased protection of patient privacy. If we see privacy as a value, this effect is then something negative.

Let me now turn from the more general reflections on ethical assessment of technology to a particular example of new technologies. As a case in point, I will discuss ambient computing for personal health monitoring. This is a bundle of technologies used for medical home care that likely will transform both the health care and home environment. Health care will move out of the hospitals and into private homes; these homes will then be “invaded” by sensors and cameras. The technologies necessary for this transformation are developed. It requires long-established technologies such as cameras and computers but also newly emergent technologies such as micro-sensors and chips that are currently under development.

Ambient computing for personal health monitoring

In the home

According to the visions of the technicians, sensors and computer devices will be, in the future, practically omnipresent. Small application-specific, network-connected information appliances will be embedded in virtually everything around us (Kunze et al., 2001). This stage of information and communication technologies (ICT) is given different names: ambient technology, ubiquitous technology and pervasive technology.

According to the forecast, we may predict that our homes in the future will be littered with monitoring devices, sometimes called Ambient Assisted Living (AAL) (Cicirelli 2021). Microphones, cameras, microprocessors and sensors are attached to the toilet, to kitchen devices, lockers, etc. with the aim of aiding and facilitating life in different ways. Ambient ICT is also used for health care purposes. Sensors are wearable and even implanted into a person's body. These sensors can monitor and register body temperature, heart rate, blood pressure, or any other bodily health-related function. Furthermore, the monitoring possibility also includes a person's movements, fall detection, location tracking, and gastrointestinal telemetry. Thus, the new electronic sensors/devices can monitor a person's activities and many of his/her bodily functions.

The devices are embedded in the environment and should ideally be unnoticed by the users. How is this possible? First, they are extremely small. Nanotechnology provides material that will be miniature-sized and may be discreetly applied to the environment to be used for ambient computing in personal health monitoring. "It is a world of smart dust," write Wright et al. (Wright, 2008, p. 1). Secondly, some devices can also be directly attached to the person, connected to a person's watch, ring, and clothes and even implanted in his or her body.

Although ambient computing is a resource for different purposes, it is not least a resource for providing health care in the home. Medical treatments and drug deliveries can be distributed in the home through "intelligent" devices, such as automated functions that are programmed by health care personnel and monitoring devices that make it possible to treat patients from a distance.

The medical use of ambient computing in combination with communication technologies is called "m-Health". It is defined as "mobile computing, medical sensors, and communication technologies for health care" (Istepanian, RSH; Jovanov, E.; Zhang, YT, 2004). Telematics, the combination of information technology and telecommunication, is one of the requirements for this development. It is further strengthened through wireless communication. Body-area network (BAN) is used for communication between sensors and the patient's body, personal area network (PAN) is used for communication in the personal environment of the patient, and wide area network (WAN) is used in the connection to a central data pool and information services.

In sum ambient computing for health care purposes has the following characteristics:

- *invisible*, i.e. embedded in clothes, watches, glasses, etc.,
- *mobile*, i.e. being carried around,
- *context aware*, i.e. equipped with sensors and wireless communication interfaces, making it possible to scan the local environment for useful information and spontaneously exchange information with similar nodes in their neighbourhood,
- *anticipatory*, i.e. acting on their own behalf without explicit request from a user,
- *communicating* naturally with potential users by voice and gestures instead by keyboard, mouse and text on a screen, and

- *adaptive*, i.e. capable of reacting to all kinds of abnormal exceptional situations in a flexible way without disruption of their service” (Nehmer et al., 2006, p. 46).

So, ambient computing for personal health monitoring implies that sensors and monitoring devices will be placed in the patients' homes. These sensors and monitors are connected to clinics and hospitals on the other end.

In the clinic - medical connectivity

So far, I have described how sensors and monitoring devices combined with wireless connections make it possible to send many different data about a patient to the health clinic. On the receiving end, there are personnel at a clinic watching monitors, collecting information on computer screens, and noticing signals. With the help of microphones, cameras and other communications devices, health care personnel can react to the incoming information and communicate with the patient.

Based on all the information received, health care personnel will perform their work. Physicians will make their diagnosis and suggest therapies, nurses will plan for patient care, occupational therapists will prepare necessary aid, and social workers will analyse the patient's future social needs. And, since the patient is monitored, in the case of emergency such as an accidental fall an ambulance will in a short time be on its way.

Thus, it may seem as if ambient technologies for personal health care offer an ideal health care: the latest technology is used; there are human experts and expert systems that can diagnose any kind of incoming data and suggest treatments; through tele-monitoring, health care professionals and patients can communicate with each other; and the patient does not have to travel and may be observed and cared for as if he or she were in a hospital.

What are the benefits?

Ambient computing is an instrument for prevalent personal health monitoring and distributed health support. It is envisioned as the future of health care and will, according to the “vision” of the European Commission, “...take healthcare out of the hospital, bring it to the home and embed it into people's lives” (EurActiv, 16.6.2008).

It is not difficult to see several benefits with the emergent technologies. There are at least five reasons for introducing ambient computing for personal health monitoring. First, the system has a potential for monitoring patients suffering from chronic illnesses and elderly people. This is a category of patients that requires long-term attention but does not necessarily need continuous treatment. In the present health care system, when patients are too ill to live at home, but not ill enough to go to hospital, they normally move to institutions for chronically ill patients or nursing homes. With the new possibilities of personal health monitoring, staying at hospitals or nursing homes may be postponed or no longer necessary; patients will be able to stay longer in their homes while still being provided with the care they need.

The benefits for chronically ill patients and the elderly who are able to reside in their homes are both personal and economic. Typically, both chronically ill patients and the elderly want to stay in their homes as long as possible so that they will be surrounded by friends and family in a familiar environment. Furthermore, the cost of institutional care is much greater than home health care. In those respects, ambient computing for personal health monitoring may benefit both the patients and the society.

Secondly, in cases of emergency and alarm personal health monitoring will facilitate necessary relief actions. For example, if an elderly person falls in his or her home, this will be registered by monitoring devices such as cameras, sensors and other monitoring devices that will send this information to the emergency units that can provide appropriate care.

Thirdly, sending expert medical advice to patients far away will have various beneficial consequences. There might be a need for immediate medical consultation when an accident happens far from a hospital, as well as for a scientific expedition in distant regions or in space. Distant medical expertise for diagnostics and therapy might also be helpful for medical service in underprivileged regions and countries. The distribution of health care resources is usually uneven within a country and even more pronounced between developed and developing nations around the globe. The possibility of telemonitoring and distant care has the potential for limiting the gap in access to medical care.

Fourthly, personal health monitoring is not only a potential resource for the ill and elderly, but also for healthy people. It might function as an early warning system for a variety of medical conditions. The monitoring system can indicate possible health-related problems even before they are noticed by the person. Continuous health monitoring might also promote healthy lifestyles. It can indicate when the person behaves in a way that is detrimental to his or her health.

Fifth, in a time when there is a lack of resources for employing health care personnel, different kinds of technical support may compensate for this deficit. Nehmer et al. write: "Autonomy enhancement services...make it possible to abandon previous manual care given by medical and social care personnel or relatives and replace it by appropriate system support" (Nehmer et al., 2006, p.44). Hence, ambient computing for personal health monitoring may replace health care workers and relatives in the future

Ethical questions

Technology is often perceived as something given and set that is the result of invisible forces outside of anyone's control. The point of social constructivism is to "unveil" technology. It stresses that technology is the result of human decision-making, social forces and interests, and hence, that technology is changeable. We can ask questions about technology: whose interests are served by technology, what is good technology and how would we like to change technology. These questions invite us to engage in ethical assessment of technology. We can assess the design, result and consequences of already existent technologies to improve them.

We have noticed that personal health monitoring has several advantages. The patients can stay in their homes instead of having to visit a clinic or be admitted to hospitals. Furthermore, emergency situations will be detected faster, and medical diagnosis, advice and treatment can be provided at a distance. Besides the issue of more efficient use of societal resources, these consequences are benefitting the patients and contribute to better health care. They can, from an ethical point of view, be motivated by both the principle of beneficence and the principle of autonomy. Personal health monitoring has the potential to benefit the patients in various ways, thereby contributing to their autonomy. Thus, there seem to be many good reasons to introduce personal health monitoring. The emerging ambient technologies are likely to transform health care as well as the home environment.

Despite the potential benefits of ambient computing for personal health monitoring, we can also envisage some threats and vulnerabilities connected to the emergent technology. Scientific commissions in the area have pointed out that there is also a dark side to a "world of ambient intelligence." Increased surveillance of the workplace and homes poses a threat to privacy. Furthermore, vital societal practices, infrastructure and management of personal data are dependent on the new technology. Therefore, security of the systems is of utmost importance. If or when the systems break down, damages to both the society and to the individuals may ultimately result. For example, personal data run the risk of getting into the wrong hands, thereby posing as a risk of identity theft. According to the authors of *Safeguards in a World of Ambient Intelligence*, loss of control will also undermine public trust in the new systems (Wright, 2008). Thus, it is imperative to ask about the risks associated with future

health care dependent on ambient computing. Are there any ethical problems related to the new medical landscape?

Hypothetically, let us assume that a nano-scaled device is implanted in a patient's body. The purpose of this device is to monitor heartbeat and other bodily functions. We can envisage several ethical problems related to this new medical device. First, it may pose a threat to privacy. A right to privacy presupposes both a right to non-intrusion and a right to control information about oneself. How will privacy be affected by the fact that sensitive information is circulated in decentralised IT-systems? How can privacy be protected with the monitoring of patients in their homes? Secondly, ambient computing can be invisible and programmed to anticipate human action. For example, the implanted device might restrict the functioning of the patient in a way that was unanticipated and by which the patient was unaware. Does ambient computing imply a risk for technological paternalism? Thirdly, a motive behind both home-based medical care and telemonitoring is to replace health care personnel with technical devices. For example, the implanted device will automatically transfer information to the health clinic, which will decrease the need for personal interaction between health care personnel and the patient. How will the limitations of a non-personal encounter change the relational aspects of health care? Is it a moral issue if computerised health care replaces human relations? Lastly, how will wearable or implanted monitoring devices affect the identity and integrity of the patient? Will it imply a "medicalisation" of the personal identity so that the *person's* self will be transformed into a *patient's* self? Thus, it seems as if existential and ethical problems of personal identity and integrity are raised by the emerging health care technologies.

Those introducing information and communication technologies for personal health monitoring should consider the words of Marsden S. Blois regarding an earlier stage of medical informatics. When reflecting on the apparent distrust and disinterest of doctors towards information technology in health care, he comments:

The most important question appears not to be "Where can we use computers?" but "Where must we use human beings?" Until this matter is thoroughly explored, tension between physicians and computer advocates will persist (Blois, 1980).

Obviously, a beneficial relationship between doctor and patients is not *necessarily* lost in a high-tech medical environment. There is no predetermined path to distance and alienation. Instead, if developed and used in a way that takes the basic values of health care into account, new technology can be both helpful and contribute to good health care. However, such an alternative way of implementing emergent technologies needs a conscious effort to assess it from a moral point of view. However, how is this possible? Are there methods for an ethical based technology assessment? This question is the point of departure for the next section.

Ethical assessment of emerging technologies

We have noticed that emerging technologies for personal health monitoring raise important ethical questions. How should these systems be introduced and how can they achieve justification? Answers to these questions are provided by proponents of what is called constructive technology assessment (CTA) or interactive technology assessment (iTA).

Technology assessment, as a systematic activity, goes back to the 1960s. It was introduced as a response to the emerging critiques of technology that were, for example, motivated by environmental problems after industrialism and the raised awareness of the implications of nuclear power. The aim of technology assessment is to identify, analyse and evaluate the social consequences of the introduction and use of new technology. Technology assessment can be limited or wider in scope. It may be limited to solidity and reliability of the technology

itself or also incorporate an assessment of external effects on society and environment. Obviously, the external effects that are objects for assessment might be far reaching.

Later, methods and theories for technology assessment have been enriched by ethics. There are two kinds of critiques against technology assessment from an ethical point of view. Firstly, the criteria for assessment were seen as inadequate without including ethical values. Secondly, technological assessment was carried out after the introduction of a new technology. A more constructive and effective way would be to assess new technology at the stage of design and construction. Consequently, methods for constructive and interactive technology assessment were developed.

One example of constructive technology assessment is taken from the development of a decision support system for diabetes care in a Swedish hospital. An information system consisting of a computer-based patient record for the collection, storage and presentation of appropriate information, and a decision support module to aid both patient and clinicians in diabetes care was designed and implemented. The users, such as the doctors and nurses in diabetes care, were involved in all the processes of design and implementation; thus, the principles of participatory design were in practice. Further, during the design and implementation of the system situations that rose questions of an ethical nature were detected. The system gives access to different kinds of information about patients, their yearly check-ups, eye tests, laboratory results, drugs taken, and haemoglobin level. It can also provide graphical presentations of the time courses of these factors and allows also sending the latest haemoglobin levels home to the patients.

The constructive technology assessment resulted in some obvious benefits. First, the nurses' working conditions were improved. The information both about the disease and about the patients was structured in a better way and the nurses could easily get access to the information they needed. Furthermore, the new decision support system made it possible to decentralise the decision making. Decisions formerly made by doctors were now made by nurses. Through their greater involvement and responsibility, the nurse's satisfaction in work improved considerably. The same was true for the patients. They now were much better informed about their disease in general and their own health care status in particular (Collste et al., 1999).

Ethical issues in research on personal health monitoring

So, what are the ethical implications of these ideas about constructive and interactive technology assessment for research, development and introduction of ambient computing and other technologies for personal health monitoring?

In their book on engineering ethics Martin and Schinzinger visualizes engineering as social experimentation (Martin and Schinzinger, 1997). Engineering, which includes both research, that is the invention of something new, and technology, to transform the new idea into an artefact, is like medical experimentation in the respect that it affects human beings and that it is supposed to have beneficial results. How, then can a principle of informed consent, so important for medical research, be applied to social experimentation?

According to social constructivism technology development is open ended. It is difficult to anticipate what this would imply in practice. However, a basic requirement is that everyone involved in the process of developing new systems; health care authorities as well as companies, should have open minds and be willing to include the users, e.g. both patients and health care professionals in the process of design and development. The focus group methodology might be valuable in this respect.

I have stressed the importance of ethical assessment of emerging technologies. But how will the assessment proceed when technologies are set and in place? This question is discussed in the next section.

A paradox: from visibility to disappearance

The vision of an ethically informed technology development presupposes visibility. In line with the theory of social constructivism, technology is the result of a chain of decisions taken by product designers and producers. To assess technology, questions should be raised such as, “What choices are made? At what moment? By whom?”

However, the visibility of a new technology and the public and moral discussion of its consequences tend to slowly vanish. This will happen when the technology is integrated in our everyday life and becomes commonplace. We no longer reflect on the pros and cons of the technology, we just take it for granted. As Mark Weiser (1991) argues, the disappearance of technology “...is a fundamental consequence not of technology but of human psychology” (p. 3). When we learn something well enough, we cease to be aware of it.

Philosopher Deborah Johnson (2000) sees technology as “instrumentation of human action” (p. 27). Ethics is about human action and, hence, when technology is set, it is the human action instrumented by technology and not the technology as such that is ethically assessed. Therefore, Johnson argues that a focus on the ethics of a particular technology, such as computers, will also slowly disappear. Johnson writes: “...once the new instrumentation is incorporated into ethical thinking, it becomes the presumed background condition” (ibid, p.30).

Therefore, we can conclude that it is of utmost importance to focus on the process of design and development of new technology from an ethical perspective. The reason is, of course, that technology is deeply influencing our world and our lives. However, when a technology is set and becomes integrated as instrumentation of human action, it will disappear and the ethical discussion will move to another new technology.

Conclusion

This chapter deals with ethics and technology, and it has taken ethical problems and ethical assessment of ambient computing for personal health monitoring as a case in point. What are the effects of a technology? How does it affect human life and the environment? What are its intended and not intended consequences? These are questions raised in ethics and technology.

We have noticed that one can foresee that the emerging technologies will benefit health care in different ways. It will facilitate elderly and chronically ill patients to stay in their homes instead of being forced to go to hospitals or nursing homes. It will speed up relief in case of an emergency, it will facilitate the possibility to get expert medical opinion at a distance, and it has a potential to lower the costs of health care.

However, the transformation of health care due to ambient computing for personal health monitoring can also be expected to have some challenging ethical consequences. It might affect privacy in two ways. Ambient computing invades the patient’s private sphere and even, ultimately, his or her body, which means that almost everything, except perhaps his or her thoughts and hopes, might be monitored. Secondly, even informational privacy might be threatened due to the transfer of sensitive information about the patient.

The introduction of ambient technology for personal health monitoring is of course done with the best of intentions. However, the combination of invisibility and pervasiveness might create difficulties for the patient to control his or her environment. Hence, the emerging technology has potential paternalistic implications; the patient loses control and her autonomy is in this way confined.

We have also noticed that personal health monitoring might influence a person’s sense of identity. He or she might apprehend him/herself increasingly as a patient. In the footsteps of the emerging technology, one might find an insidious medicalisation of identity.

Because of ambient technology for personal health monitoring, the distance between doctor and patient might increase. There will be fewer reasons for personal encounters and more distant monitoring. Health care therefore runs the risk of being ruled by technology.

These four possible consequences are examples of unintended but ethically relevant implications of emerging technologies in health care. Can they be avoided? Are there any options for alternative strategies? Can health care benefit from the emerging technologies without threatening important health care values? The answer to these questions depends on many factors. The problematic effects of ambient computing for personal health monitoring are not predetermined. Through a continuous, constructive, imaginative, interactive, and ethically informed technology assessment, they might be avoided. This could be an alternative for designing emerging technologies so that their potentialities will be realised, but their negative impacts will be avoided. If this happens, ambient computing for personal health monitoring will become a helpful instrumentation of health care and embedded in our everyday lives.

When technology assessment is done from an ethical point of view the consequences of technologies for human beings and the environment are in focus. Technology can improve human life in many ways. New solar energy technologies can replace old energy sources like coal and oil and in this way limit the dissemination of carbon dioxide. Here we have an example of a good technology, i.e. a technology that benefits human beings and the environment.

Chapter 5. Research ethics

Research and research ethics

Research is done in a wide range of subjects, from technology and natural sciences to humanities. The objects of the research differ depending on discipline. It can be an atom, a plant, a human being, an idea etc. However, despite the wide variety of disciplines and research areas all kinds of research go through some stages. The research process starts with curiosity; a research question is posed, a hypothesis is formulated and aims are set. To answer the research question and test the hypothesis different disciplines use different methods. Methods vary from experiments in laboratories, to tests on human beings, interviews etc. Finally, some results are achieved, the research questions are answered, and the hypotheses are verified or falsified. Research results are used for different purposes in society, e.g. the research results have some effects outside of the research institutions.

We see that research go through different stages and every stage raises ethical questions as is illustrated in the following graph:

Ethical aspects of research

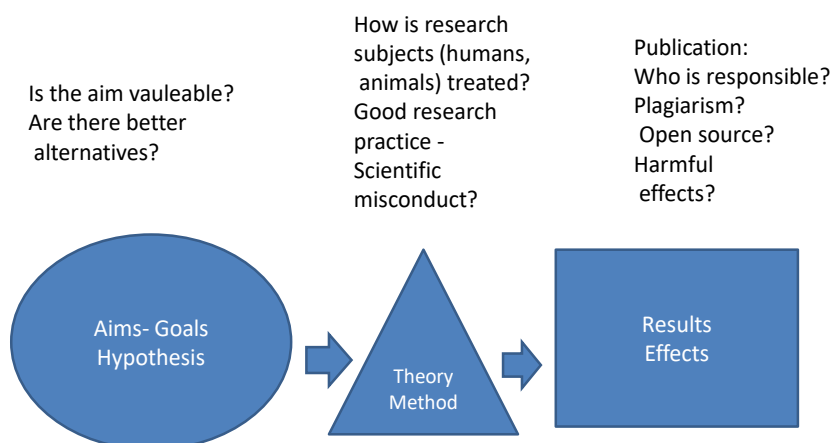


Figure 4. Ethical aspects of research.

Ethical questions related to research include how to respect research subjects (human beings and animals), how to avoid misconduct like falsification, fabrication and plagiarism, how to take responsibility for publications and the application of research results. I will now consider one aspect; the ethics of research involving human beings as research subjects.

Identifying research ethics

How do we delineate what is a moral problem from other kinds of problems? The philosopher Harald Ofstad once said that you could feel in your stomach when you face a moral problem. I think this is a good starting point. Morality raises our emotions, and we use value terms like "should" "ought not" "right" and "fair" when we talk about them.

As we noticed in Chapter 1, it is customary to distinguish between the terms ethics and morality. Morality denotes acts and standpoints i.e. practice, while ethics means reflection

over moral actions and moral standpoints, i.e. theory. Thus, we speak of a moral action but an ethical theory. If we follow this distinction ethics means the reflection on morals and behaviour, we engage in ethics when we formulate norms and principles for our behaviour. Violating these norms then pertains to unethical behaviour. So, research ethics means norms and principles that are the result of ethical reflection on research that offer guidance for a morally right behaviour. The norms can be positively or negatively formulated: “research should benefit mankind!”, “respect the principle of informed consent!”, “respect the rights of research subjects!”, “minimize harm to animals used in research!”, “respect the rights of previous researcher!” “fair distribution of credits!”, “promote justice in dissemination of research results!” etc.

Codes and guidelines

Ethical norms for research are often formulated in ethical codes and guidelines. They are the results of ethical reflections by the research community and provide a common ground for the behaviour of the research community. One example is the European Code of Conduct for Research Integrity, formulated by ALLEA (see reference at the end of this book)

Who are the addressees of research ethical norms and rules? Obviously, the researchers – therefore it is of utmost importance to include research ethics in the training and education of researchers! But also universities and research institutes, as well as funding agencies have to abide to research ethical principles and norms.

Do we need ethics - is not the law enough?

To lie is not illegal – but unethical. However, if you lie about your assets when asking for a bank loan, that lie may also be illegal. Ethics covers a much broader area of human behaviour than the law; therefore, we need ethical norms and principles for research. The law may regulate that research on humans or animals should be ethically vetted, but ethics provides the norms and principles for how this vetting should be done.

Research on human beings

This book started with a letter describing a scientific experiment on human beings in Nazi Germany. The letter reports on one of many hideous experiments on human beings in Nazi Germany. At another place, far away but about the same time, similar things happened. In Pingfang near Harbin in Northern China the Japanese Unit 731 under command of General Shiro Iishi, undertook lethal experiments on human beings. The experiments included tests with airtight chambers, like the one reported by Rascher, amputations of body parts that were reconnected to the body on persons alive, vivisections on persons for training newly employed army surgeons, infecting people with various diseases etc.

The experiments on human beings in Germany and China in the 1930s and 40s showed mankind that research must be controlled and ethically assessed. The German experiments also laid the ground for regulations of research in the post-war period.

Universal declarations of research ethics

The experiments on human beings that took place in Germany and China illustrate the need for strict regulations of research. Especially the Nazi doctors' experiments gave the impetus to regulations of research, first the Nuremberg Code in 1947 and then the Helsinki Declaration. Because the American military after World War II wanted to take advantage of the results of the Japanese experiments themselves, they kept them secret and did not prosecute the perpetrators.

The Helsinki Declaration (last revision 2013) contains several paragraphs regulating research on human beings. Here are some excerpts:

16. In medical practice and in medical research, most interventions involve risks and burdens. Medical research involving human subjects may only be conducted if the importance of the objective outweighs the risks and burdens to the research subjects

17. All medical research involving human subjects must be preceded by careful assessment of predictable risks and burdens to the individuals and groups involved in the research in comparison with foreseeable benefits to them and to other individuals or groups affected by the condition under investigation

25. Participation by individuals capable of giving informed consent as subjects in medical research must be voluntary. Although it may be appropriate to consult family members or community leaders, no individual capable of giving informed consent may be enrolled in a research study unless he or she freely agrees.

26. In medical research involving human subjects capable of giving informed consent, each potential subject must be adequately informed of the aims, methods, sources of funding, any possible conflicts of interest, institutional affiliations of the researcher, the anticipated benefits and potential risks of the study and the discomfort it may entail, post-study provisions and any other relevant aspects of the study

The Helsinki Declaration was adopted by the World Medical Association but has relevance for all research involving human beings. Also, UNESCO's Declaration of Bioethics and Human Rights contains articles regulating research on human beings:

Article 2. Scientific research should only be carried out with the prior, free, expressed and **informed consent** of the person concerned.

Article 9. The **privacy** of the persons concerned and the **confidentiality** of their personal information should be respected (...).

As we can see the UNESCO-declaration contains some core values (in bold).

Universal moral values for research

These declarations express universal values. But are not values contextual and bound to a particular tradition? Obviously, morality has developed within different cultural traditions like the Confucian, Muslim, Christian, liberal etc. Different traditions emphasize different values but there is also a universal basis underlying the differences. Human beings have some needs and interests in common. For example, as human beings we all need both community and autonomy, although the former value is more emphasized in the Confucian tradition and the latter in the liberal.

From the universal declarations for research, one can deduce the universal principles of non-maleficence (do not harm), benevolence, respect for autonomy, informed consent, privacy and confidentiality.

The application of principles

How, then can these principles be applied? Let me illustrate the application of principles with the following case of research on breast cancer.

A clinician will make a medical experiment and try a new treatment. He will involve 15 of his patients. The aim is to develop a new method for curing cancer. She will use two methods: blood samples and interviews.

The principles mentioned above provide a moral framework for her research. The principle of benevolence as well as the principle of non-maleficence are both the basis for her research; she wants to improve the treatment of this widespread and fatal illness. They also guide her when she is doing his research. She must minimize the pain inflicted on the women who participate in the research.

To respect the women the doctor must follow the principle of informed consent. That means that she must inform the women about the research and possible harm connected to it and give them the chance to decide if they want to participate or not. A fair procedure of informed consent presupposes that the women have the capacity to understand the information and take a decision, that the information is understandable, relevant and comprehensive, and that the women are free to either choose to take part in the experiment or not to take part. Freedom to act does not simply mean that they are not forced to participate. There should be no manipulation or threat behind. For example, the research subjects must be secured that they have access to the best treatment available even if they chose not to participate. The principle of privacy is secured if the women consent to the research and if information about them is handled confidential.

Ethical boards

Around the world vetting of research on human beings is done by research ethical committees. For example, in 2001 a European Union directive gave the legal framework for how research on human beings should be assessed. In Sweden, this led to a law stating that there should be regional research ethical boards in connection to, but independent from, the universities. Each regional committee should contain sections for medical research and for non-medical research on human beings. The portal paragraph of the law says: *“The research may only be approved if it can be conducted with respect for human dignity”*. Furthermore, the law states some basic principles for research. For example:

§9 Research may only be approved if the risks to which the subject of the research is exposed are counterbalanced by its scientific value.

§ 17 Research may only be carried out if the subject of the research has consented to the research that concerns him or her...

of research ethical boards to put the research ethical principles and rules into practice.

Research integrity and scientific misconduct

Scientific research is a conscious and systematic approach to acquire knowledge, based on theories, methods and standards that have been developed through the history of scientific disciplines. The terms “research integrity” and “good research practice” refer to ideals for how research ought to be performed.

In the 1940s the American sociologist Robert Merton proposed norms for scientific research that have influenced the discussion on research integrity since then. According to Merton good research should not be secret or anyone’s property but requires instead openness and publicity. Merton uses the term **communism/communalism** for this norm. The second norm, according to Merton, is **universalism**, which means that the only relevant criteria for assessing research are the scientific criteria. The position or characteristic of the researcher has no relevance. Thirdly, **disinterestedness** means that the main motive driving the researcher should be the quest for knowledge, not for example economic gain or fame. Finally, the researcher should always be open for questioning the result. Merton calls this **“organized scepticism”**. This norm coheres with Karl Popper’s famous demarcation line between research and other activities; falsification, i.e. the constant efforts to falsify one’s result to get closer to the truth (Popper 1959). Merton’s norms for research are summarized in the acronym CUDOS.(Merton 1973) Although the exact meaning and implication of Merton’s criteria can be discussed, they imply an ideal for scientific work and deviations from this ideal can be seen as misconduct in research.

Merton’s CUDOS norms are well-known examples of ideals and norms for science. These norms could be seen as the basis for professional ethics of researchers. Scientific misconduct

and fraud are deviation from the ideals of science and good research practice. In the following we first conceptualise the area of scientific misconduct. Then we present some norms, guidelines and codes of scientific integrity. In the next section we argue that scientific misconduct is a real problem that must be taken seriously by the research community and finally we discuss how scientific misconduct is investigated, how common it is and how it can be explained.

Scientific misconduct and scientific fraud

Scientific misconduct and scientific fraud imply that the researcher, intentionally or by carelessness, deviates from the ideals of research. There are various forms of scientific misconduct and there is an on-going discussion of how to delimit the concept. In a narrow sense, scientific misconduct implies falsification, fabrication and plagiarism. *Falsification* means that the researcher manipulates research materials and equipment or omits or changes data or results, *fabrication* means that the researcher makes up data or results and *plagiarism* that the researcher uses other researchers' texts, ideas etc. without given proper recognition (Good Research Practice 2011). In combination, falsification, fabrication and plagiarism form the acronym FFP.

So far, conceptualisation in this area is rather ambiguous. The narrow definition of scientific misconduct has been questioned for excluding problematic activities related to research. "Ghost writing" is one example of problematic research practice that is not covered by FFP. Ghost writing means that famous scholars in a field of research put their names on publications that others have produced to facilitate the publication. This has for example been practiced by drug companies to speed up the marketing of their products (Saul 2008). Another questionable research practice is the so called "salami-publications". To get more publications a researcher splits up research finding in several publishable units. The motive behind is to get as many publications as possible. A third questionable research practice is when a company prevents or delays the reporting of research findings because the publication is not in the interest of the company. Should also ghost-writing, salami-publication and preventing or delaying publication be considered as scientific misconduct?

Defining scientific misconduct (and similar phenomena) can have different points of departure. One can start from cases of misconduct that have been investigated and prosecuted. From a number of cases, one can deduce views on how to understand misconduct. Another starting point is ideal definitions of science and research. Based on views on what characterises exemplary scientific work, for example Merton's CUDOS norms or ideals found in codes of scientific integrity, for example *The European Code of Conduct for Research Integrity* and the *Singapore Statement* (see below), one can identify different kinds of deviations from the ideals. From this point of departure, ghost-writing, salami-publications and the delay of research findings are certainly instances of scientific misconduct.

The conceptual work of defining scientific misconduct must adhere to philosophical standards, such as clarity and precision. The aim of this conceptual work is to stipulate useful definitions around scientific misconduct, much needed by committees that are investigating cases.

One should also note that scientific misconduct varies according to degree and intention. Sloppiness and carelessness leading to false result can be seen as milder forms of misconduct, while fabrication and falsification are graver forms. A careless researcher may have no intention to deceive on the one side, while a fraudulent researcher who fabricates results might do this intentionally. The degrees of misconduct and intentions are well illustrated in the graph below (Nylenna & Simonsen 2006).

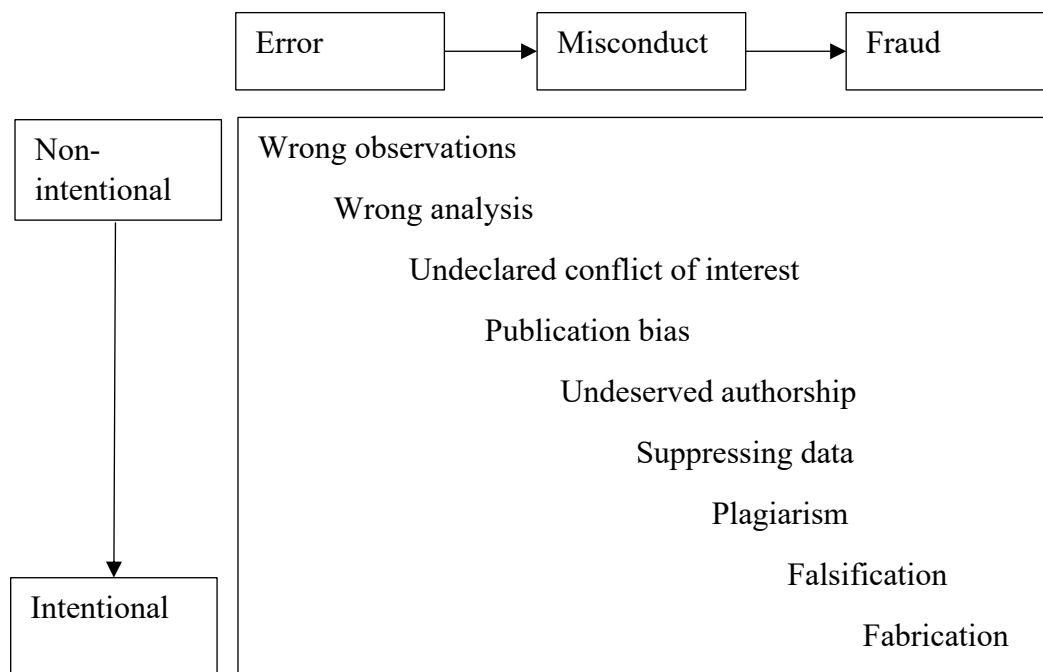


Figure 5. The degrees of misconduct and intentions. Redrawn from (Nylenna & Simonsen 2006).

There are reasons to believe that deviation from good research practice is not uncommon and even increasing in a time characterised of academic competition and publication stress. Examples of grave and highlighted cases of scientific fraud are the British Doctor Andrew Wakefield's studies linking vaccines and autism,³ the Korean Woo Suk Wang's research of human cloning,⁴ the Norwegian cancer researcher Jon Sudbø's findings of new medicines⁵ and the Japanese researcher Haruko Obokata's fabrication of "STAP-cells (stimulus-triggered acquisition of pluripotency).⁶ These four examples were all cases of fabrication and falsification. In recent years two German ministers, the minister of defence Karl-Theodor zu Guttenberg and the minister of education Annette Schavan, have been forced to step down from their political positions due to allegations of having plagiarised their PhD-theses (Kulish and Cottrell 2013).

From the figure above, one can conclude that there are numerous different kinds of scientific misconduct and deviations from good research practice. It is also clear that there is a grey zone between bad research and misconduct and it can sometimes be difficult to make clear if a particular case is just an instance of bad research or of misconduct.

Norms for good research practice

The ethical discussion on scientific integrity relates both to norms and rules for good research practice and to scientific virtues. Norms and rules for good research practice are formulated in national and international codes of conduct.

In parallel to the increase of EU-funded research and the globalisation of research cooperation one can notice an increased European and global interest in research integrity. This development is illustrated by some recent international codes of conduct. The European

³ Wakefield is hailed by the present US minister of health Robert Kennedy jr. <https://doi.org/10.1136/bmj.c7452>

⁴ <https://embrybros.wordpress.com/2011/04/08/375/>

⁵ <https://doi.org/10.1093/jnci/djj118>

⁶ <http://www.japantimes.co.jp/tag/haruko-obokata/>

Science Foundation (ESF) and ALLEA (All European Academies) formulated in 2011 *The European Code of Conduct for Research Integrity*. The Code starts with the following principles of scientific integrity: honesty in communication, reliability in performing research, objectivity, impartiality and independence, openness and accessibility, duty of care, fairness in providing references and giving credit, and responsibility for the scientists and researchers of the future. The Code contains a number of guiding principles for good research practice and recommends principles for investigating research misconduct. The Horizon 2020 EU funding programme is also emphasising the importance of research integrity in a more forceful way than the previous programmes did.⁷

The Singapore statement on Research Integrity was declared by the second global conference in research integrity held in Singapore in 2010. It states the following principles for research: “Honesty in all aspects of research, Accountability in the conduct of research, Professional courtesy and fairness in working with others, Good stewardship of research on behalf of others” and then 14 principles of responsibility for the researcher.⁸

The national, European and global codes contain principles for good research practice. However, research integrity can also be seen from a virtue ethics perspective. Then the focus is on the character of the researcher. In line with Alasdair MacIntyre’s theory of virtue ethics, research can be seen as a “practice” with some internal values and virtues (MacIntyre 1981). Good research is characterised by virtues like honesty, truthfulness, openness, integrity and accuracy. Virtues of how to act as a researcher are, at least ideally, acquired through doctoral education and collegial discussions, research seminars etc.

Why is scientific misconduct a problem?

There are several reasons why scientific misconduct is challenging. The first reason relates to human existence. The quest for knowledge is a basic human drive. Already the new-born child is eager to learn about the world around him or her. Curiosity and desire to learn is an integral part of human nature and a basic human value. It is a precondition for human and social development. Science can be seen as a way to organise the quest for knowledge and the systematic endeavour to get new knowledge to get a better understanding of the world around us. Consequently, scientific misconduct violates and undermines a basic value of human life.

Second, research, and in particular the natural, technical and medical sciences, results in new products that in different ways can aid and help humans. Technical research is a condition for new power plants, bridges etc. and medical research for new medicines and treatments. But if the research is not done in a proper way, it might result in deficient products. Then the safety of power plants and bridges and the effects of the medicines and treatments will be challenged. For example, because of Andrew Wakefield’s false report that triple vaccine could cause autism, many parents decided not to vaccinate their children, which later led to diseases and deaths. The Norwegian cancer researcher Jon Sudbø’s fraudulent research led to ineffective drugs against mouth cancer.

Third, the central aim of science is to provide new knowledge and a better understanding of the world. This aim is undermined by scientific misconduct, since it leads to false views and misunderstandings. This is even more serious because research is a cumulative process and scientists depend on others’ findings. False research results will then lead to further false results.

Fourth, science is primarily funded by public means. When cases of scientific misconduct are revealed in the media, this will undermine public trust in science. As a consequence, taxpayers’ readiness to contribute to research may diminish.

⁷ http://europa.eu/rapid/press-release_SPEECH-15-5243_en.htm

⁸ Singapore Statement on Research Integrity 2010

Finally, scientific misconduct means breaking the important moral norms not to lie and not to steal. Fraudulent researchers who falsify or fabricate their results are lying to the public and researchers who plagiarise others' results steal from scientists who have followed the standards for good research practice.

Investigating scientific misconduct

Ways and procedures for investigating scientific misconduct vary. Some countries have a central, national board for investigating misconduct while others have decentralised systems in which the universities are responsible for investigating alleged cases (Godecharle, S, Nemery B, Dierickx, K, 2013).

Normally, after an accusation is made, the responsible body appoints experts working in the same scientific field as the accused researcher and a commission to investigate the alleged case of misconduct. The experts' report then forms the basis for the body's decision.

Accusations of misconduct are very serious matters and can undermine a researcher's reputation even when they are groundless. Therefore, it is of utmost importance to observe maximum confidentiality during an investigation.

There is an on-going discussion of whether scientific misconduct should be put to trial as a legal offence or as an ethical matter. One argument for legal regulations is that it would better ensure the security and confidentiality of persons accused of misconduct and procedural justice. On the other hand, while scientific misconduct is a violation of the professional ethics of researchers, it should be dealt with as primarily an ethical offence.

How common is scientific misconduct?

It is very difficult to estimate the frequency of scientific misconduct. First, any estimation of course depends on how scientific misconduct is delimited and defined. Are only intended falsification, fabrication and plagiarism included or should also sloppiness and deviation from good research practice be considered?

A study by Fanelli in 2009 gives perhaps a hint of the frequency of scientific misconduct. According to Fanelli, who made a meta-analysis of 21 surveys of the prevalence of misconduct, 2-3% of scientists admitted having falsified and fabricated research results themselves, but 14% responded that they knew of colleagues who had fabricated and falsified. When asked about doing other questionable research, 34% admitted that they had done it themselves and 72% believed that colleagues had done it (Fanelli 2009).

Ferric et al. reported to the US National Academy of Sciences in 2012 that in the period 1975-2012, 67.5% of retraced scientific publications were retraced due to misconduct. Out of these, 40% were retracted due to falsification or fabrication, 14% due to double publication and 10% due to plagiarism) (Ferric et al 2012).

Explanation of scientific misconduct

Research is increasingly becoming competitive. This may lead to a larger number of new scientific results, but the flip side is that incentives to fraudulence or deviation from good research practice also increases. The salami-method is an example of this development. This way of multiplying publications was unknown a few decades ago. The salami-method may not be an example of grave scientific misconduct, but the practice is questionable with respect to good scientific practice and the ideals of science. The ideal is to publish research results in the most appropriate and relevant way with respect to the knowledge gained, not to divide the results in parts because of external pressure.

What are then the motives behind scientific misconduct? The following factors have been pointed at in the discussion on misconduct: fame, university positions, rivalry, the race for patents and funding. In the humanities or social sciences, ideology can be a motive, i.e. when

a researcher wants to prove a political or ideological view with the help of falsifying or fabricating his or her scientific results.

There seems to be a positive correlation between private sponsorship and biased research. Sismondo concludes in his investigation of the impact of sponsorship in pharmaceutical research: “Results are clear: Pharmaceutical company sponsorship is strongly associated with results that favour the sponsors' interests.” (Sismondo 2008)

References

- Almond, B., 2000, Applied Ethics: the broad picture, in Petersson, Bo, ed, *Applied Ethics and Reflective Equilibrium*, Studies in Applied Ethics, 8, Linköping University, Linköping,
- Aristoteles, 1980, *The Nichomachean Ethics*, Oxford 1980
- Bayles, M., 1989, *Professional Ethics*, Belmont 1
- Beauchamp, T.L. & Childress, J.F. 2001, *Principles of Biomedical Ethics*, 5. ed., Oxford University Press, New York.
- Beauchamp, T., 2003, The Nature of Applied Ethics, in *A Companion to Applied Ethics*
- Bell, D.A. 2006, *Beyond Liberal Democracy, Political Thinking for an East Asian Context*, Princeton University Press, Princeton, NJ
- Bentham, J., 1948, *Principles of Morals and Legislation*, New York
- Brock, G., 2009 *Global Justice*, Oxford University Press
- Callahan, C., ed, 1988, *Ethical Issues in Professional Life*, New York
- Childress, J., 1986, Applied Ethics, in *A New Dictionary of Christian Ethics*, eds. Macquarrie, John and Childress, James, London, The Westminster Press
- Cicirelli, C. et al, 2021, Ambient Assisted Living: A Review of Technologies, Methodologies and Future Perspectives for Healthy Aging of Population, *Sensors* 2021 May 19;21(10):3549
- Cohen, G., 2008, *Rescuing Justice and Equality*, Cambridge
- Collste, G., Shahsavar, N. & Gill, H. 1999, "A decision support system for diabetes care: Ethical aspects", *Methods of information in medicine*, vol. 38, no. 4-5, pp. 313-316.
- Collste, G. 2002, *Is Human Life Special. Religious and Philosophical Perspectives on the Principle of Human Dignity*, Bern,
- 2011, Specifying Rights; the Case of TRIPS, *Public Health Ethics*, 4 (1): 63-69
- Dworkin, R., 1993 *Life's Dominion, An Argument about Abortion and Euthanasia*, London, HarperCollins,
- Engelhardt, H.T. 1986, *The Foundations of Bioethics*, Oxford Univ. Press, New York.
- Fanelli D., 2009 How Many Scientists Fabricate and Falsify Research? A Systematic Review and Meta-Analysis of Survey Data. *PLoS ONE* 4(5): e5738. doi:10.1371/journal.pone.0005738
- Ferric C. Fanga, Steenc, R. and Casadevall, A., 2012, "Misconduct accounts for the majority of retracted scientific publications", ,
- Fromm, E., 1947, *Man for himself, an inquiry into the psychology of ethics*, Routledge & Kegan Paul,
- Gewirth, A., 1978, *Reason and Morality*, Chicago
- Gilligan, C., 1982, *In a Different Voice. Psychological Theory and Women's Development*, Cambridge
- Glaser, J., 1999, *Humanity. A Moral History of the Twentieth Century*, New Haven and London,
- Godecharle, S, Nemery B, Dierickx, K, Guidance on Research integrity: no union in Europe, *Lancet* 2013, 381:1097-98.
- Good Research Practice* 2011, The Swedish Research Council's expert group on ethics, <https://publikationer.vr.se/produkt/good-research-practice/>.
- Griffin, J, 2008, *On Human Rights*, Oxford University Press, Oxford
- Habermas, J, 1987, *Knowledge and Human Interests*, Polity, Cambridge.

- Hare, Richard, M., 1981, *Moral Thinking*, Oxford
- Huntington, S. 1998, *The Clash of Civilizations and the Remaking of World Order*, Touchstone Books, London
- Johnson, D. 2001, *Computer Ethics*, 3rd ed., Prentice-Hall, Upper Saddle River, NJ
- Kant, I., 1983, *Ethical Philosophy*, Hackett, Cambridge.
1965, *Grundlegung zur Metaphysik der Sitten*, Hamburg
- Kohlberg, L., 1981, *Essays on Moral Development*, San Francisco 1
- Kong, X, Confucius, 2010, Foreign Language Press, Beijing,
- Kulish N. and Cottrell C., 2013, "German Fascination With Degrees Claims Latest Victim: Education Minister", *New York Times*, Feb. 9, 2013,
- Kupfer, J. 1987, "Privacy, autonomy, and self-concept", *American Philosophical Quarterly*, Vol. 1 pp. 81-9
- MacIntyre, A., 1982, *After Virtue*, London, Duckworth
- Martin M and Schinzinger R, 1997, *Ethics in Engineering*, 3rd Ed, McGraw-Hill: New York
- Maslow, A., 1954, *Motivation and Personality*, New York 1
- Mill, John Stuart, 1974, *On Liberty*, London
Utilitarianism, 1962, London
- Miller, R.A. & Masarie, F.E., Jr 1990, "The demise of the "Greek Oracle" model for medical diagnostic systems", *Methods of information in medicine*, vol. 29, no. 1, pp. 1-2.
- Noddings, N., 1986, *Caring. A Feminine Approach to Ethics and Moral Education*. Berkley
- Nozick, Robert, 1974, *Anarchy, State and Utopia*, Oxford
- Nussbaum, M., C, 2000, *Women and Human Development, The Capabilities Approach*, Cambridge
- Nylenna, M. and Simonsen, S., 2006, Scientific misconduct: a new approach to prevention, *The Lancet*, Volume 367, No. 9526, p1882–1884,
- Orito, Y., Murata, K. 2005, "Privacy protection in Japan: cultural influence on the universal value", Linköping University, Linköping, paper presented at ETHICOMP 2005, CD: The Ethicomp Decade 1995-2005
- Parent, W.A. 1983, "Privacy, morality and the law", *Philosophy and Public Affairs*, Vol. 4 pp. 269-88
- Popper, K., 1959, *The Logic of Scientific Discovery*, London: Routledge
- Rachels, J. 1995, "Why privacy is important", in Johnson, D., Nissenbaum, H. (Eds), *Computer Ethics and Social Values*, Prentice-Hall, Upper Saddle River, NJ, pp. 351-7
- Rawls, J., 1971, *A Theory of Justice*, Oxford, Oxford University Press,
Political Liberalism, 1993, New York,
- Reiser, S.J. 1978, *Medicine and the reign of technology*, Cambridge U.P., Cambridge.
- Reuzel, R., van der Wilt, G., ten Have, H. & de Vries Robbe, P. 2001, "Interactive Technology Assessment and Wide Reflective Equilibrium", *Journal of Medicine & Philosophy*, vol. 26, no. 3, pp. 245.
- Richardson, H. 2000, Specifying, Balancing, and Interpreting Bioethical Principles, *The Journal of Medicine and Philosophy*, 25 (3): 285-308
- Ross, William, D 1988, *The Right and the Good*, Indianapolis
- Sandel, M., 1982, *Liberalism and the Limits of Justice*, Cambridge

- Scanlon, T., 1998, *What We Owe to Each Other*, Cambridge,
- Saul, S., 2008, Ghostwriters Used in Vioxx Studies, Article Says, *New York Times*, April 15,
- Schot, J, 2001, Constructive Technology Assessment as Reflexive Technology Politics, in *Technology and ethics: a European quest for responsible engineering*, 2001, Peeters, Leuven:.
- Sen, A. 1999, *Development as Freedom*, Anchor Books, New York, NY
- Shun, K., Wong, D. 2004, *Confucian Ethics, A Comparative Study of Self, Autonomy and Community*, Cambridge University Press, Cambridge
- Singer, P., 1977, *Animal Liberation, Towards an End to Man's Inhumanity to Animals*, London, Granada Publ.
- Practical Ethics*, 1979
- Sismondo, S., 2008, Pharmaceutical Company Funding and its Consequences: A Qualitative Systematic Review, *Contemporary Clinical Trials*, Vol. 29, pp. 109-113, 2008 8)
- Sprigge, T.L.S, 1988, *The Rational Foundations of Ethics*, London
- Tavani, H.T., 2007, "Philosophical Theories of Privacy: Implications for an Adequate Online Privacy Policy", *Metaphilosophy*, vol. 38, no. 1, pp. 1-22.
- Toulmin, S. 1982, How Medicine Saved the Life of Ethics, in *Perspectives in Biology and Medicine*, 25 (4): 736-750
- Wachter, S, Mittelstadt, B and L, Floridi ,2017, Transparent, explainable and accountable AI for robotics, *Science Robotics*, 2 (6)
- Walzer, M., 1983, *Spheres of Justice. A Defence of Pluralism and Equality*, New York,
- Wen, H.W. and Wiliam K.A., 2021, Human Rights Ideology as Endemic in Chinese Philosophy: Classical Confucian and Mohist Perspectives, in *Asian Philosophy*, Vol 22, No 4, pp 387-413
- Westin, A.F. 2003, "Social and Political Dimensions of Privacy", *Journal of Social Issues*, vol. 59, no. 2, pp. 431-453.
- Winkler, E. and Coombs, J., 1993, *Applied Ethics. A Reader*, Oxford, Blackwell.
- Wong, D. 2004, "Rights and community in Confucianism", in Shun, K., Wong, D. (Eds), *Confucian Ethics: A Comparative Study of Self, Autonomy and Community*, Cambridge University Press, Cambridge, pp. 31-48
- Wright, D. 2008, *Safeguards in a World of Ambient Intelligence*, Springer.
- Young, I., M., 1990, *Justice and the Politics of Difference*, Princeton

Ethical Codes

The European Code of Conduct for Research Integrity, ESF and ALLEA, 2023, <https://allea.org/code-of-conduct/>

Singapore Statement on Research Integrity, <https://www.wcrif.org/guidance/singapore-statement>

UNESCO Declaration of Bioethics and Human Rights, <https://www.unesco.org/en/ethics-science-technology/bioethics-and-human-rights>

WMA Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects, <https://www.wma.net/policies-post/wma-declaration-of-helsinki/>